



# **TRBOnet Enterprise** User Manual

Version 5.3

World HQ

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# **1** Introduction

# 1.1 About This Guide and Related Documentation

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

# **1.2 About TRBOnet**

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

# 1.3 Contacts

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



# 2 Hardware and Software Requirements

TRBOnet Server/Agent with IP connection only						
Voice Channels	4	8	16	24	24+	
CPU	Intel Core i3	Intel Core i5	Intel Core i7, 4 Cores	Intel Core i7, 6 Cores	Contact technical	
Memory	2 GB	4 GB	4 GB	8 GB		
HDD	300 MB for installation files, +1 MB per 1 minute of voice recording support			support		
Sound Card	No					
	Windows 7/8.	k/10, Windows S	Server 2008/2012/2016			
Supported OS		ndows Server 20 e/Feature install	08/2012/2016 requires D led.	esktop Experience		
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			



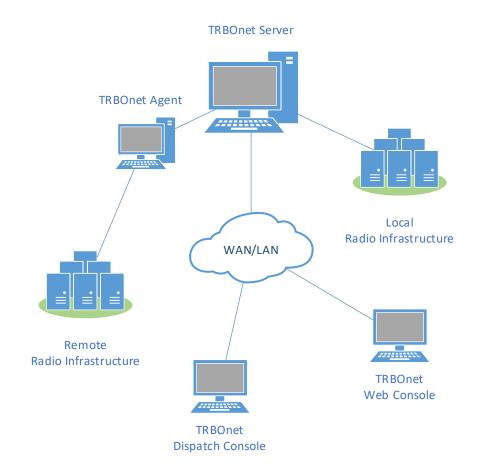
# **3** System Architecture Overview

# 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.





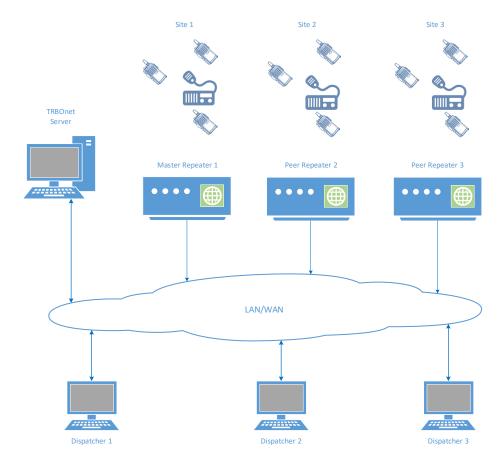
# 3.2 MOTOTRBO Radio Systems

#### 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

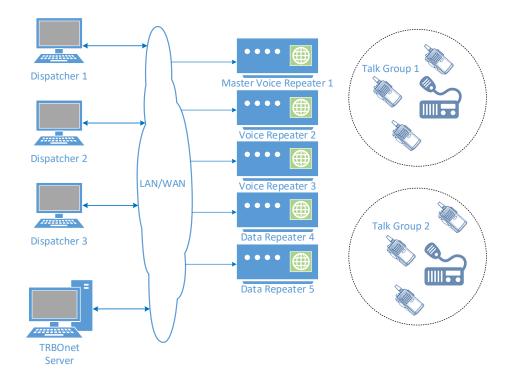
An IP Site Connect (IPSC) system is a digital conventional two-way MOTOTRBO system that provides two wide-area channels to increase your communications RF coverage area. It is possible to connect up to 15 repeaters (each geographical location of a repeater is called a "site") into one system using an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

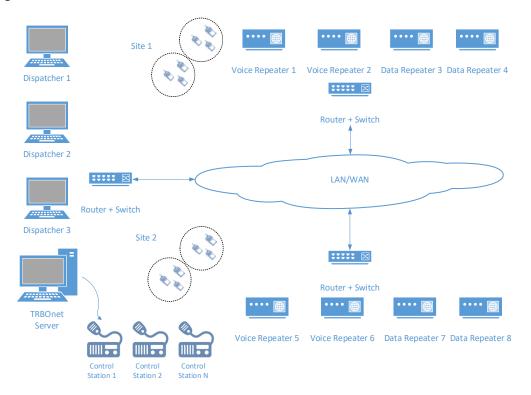
Capacity Plus (also known as Capacity Plus Single Site) is a digital trunked two-way MOTOTRBO system that is designed for high volume communications at a single site location. The system is designed to provide communications among a large number of users within a building, a set of buildings, or a single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

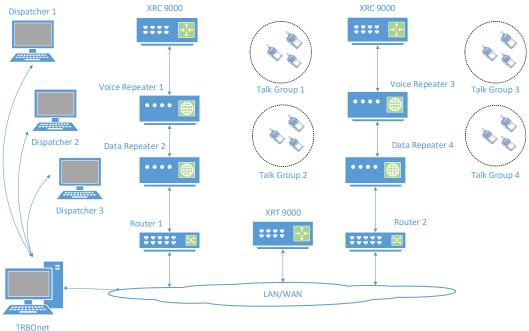
Linked Capacity Plus (also known as Capacity Plus Multi Site) is a digital trunked multisite two-way MOTOTRBO system that enables you to accommodate both high volume and wide area communications. This system design allows you to connect via IP up to 15 Linked Capacity Plus sites located in one geographical 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.



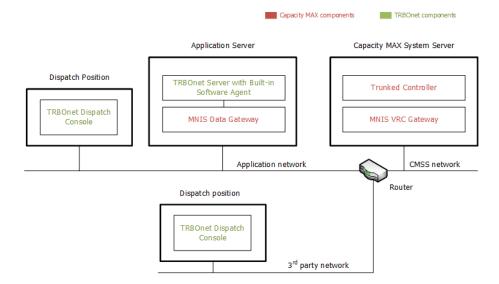


\* TRBOnet Server requires connections to only one XRT 9000 Controller and one XRC 9000 Controller in the system



# 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 System Planner (chapter 4.6.3.2 Characteristics of Backend Network).

• 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 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<sup>™</sup> 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

http://kb.trbonet.com/public.pl?Action=PublicFAQZoom;ItemID=73

## 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 14.

# 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 <del>1</del>	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.

Select the way you want features to be insta Click on the icons in the tree below to change	
Dispatch Console     Server Instance     Agent Instance	TRBOnet Enterprise 5.2 Agent
	This feature requires 199MB on your hard drive.
Location: C:\Program Files (x86)\Neocon Enterprise\	n Software\TRBOnet Browse

For example, you may install only TRBOnet Server Instance:

Custom Setup Select the way you want features to be installed	TRBOROR
Click on the icons in the tree below to change the	way features will be installed.
Server Instance	TRBOnet Enterprise 5.2 Server
	This feature requires 209MB on your hard drive.
Location: C:\Program Files (x86)\Neocom Sof Enterprise\	ftware\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 http://kb.trbonet.com/ codeplug (do not rely on a serial public.pl?Action=Public number printed on the device's FAQZoom;ItemID=31. label).

There are three license types available for TRBOnet Enterprise:

For more information on the license and renewals, contact our technical support at info@trbonet.com

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





- 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.

Carferentian	License
Configuration	License
💣 Service	
S Network	License is valid License ID: 6b6b2281-c761-4747-9eec-8b61260d782b
🛱 Redundancy	Hardware ID: 4281-8A64-D473-D6E8-DFAC
Database	License generated by: Marina Eidelman
😪 Reports	License generation date: 03-Nov-2016 TRBOnet Support is active up to: 20-Jul-2017
Service Management	Product: TRBOnet_Enterprise (4.0.0.138)
💥 Advanced settings	License for: demo
Geocoding Servers	Active instance: [Default]
Radio Networks	
Remote Agents	Demo License
Friendly Servers	Expiration date: 20-Jul-2017
Telephony	Server limitations
↓ Data Sources	Server hardware keys: 4281-BA64-D473-D6E8-DEAC
* Modbus TCP	Remote Agent connections: 5
Email	System types: Unlimited
MA SMS	
	Agent limitations Agent hardware keys: Any
📮 License	Number of master radios or master repeaters: 5
	License Manager Send Email Copy to Clipboard
Set Defaults	Apply OK Cancel
Ser Defaults	Apply OK Cancel

#### To apply the new license:

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

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

- 5. Click Next.
- 6. Click **Finish** to close the wizard.



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

# 5.2 **TRBOnet Server Database**

• In the Configuration pane, select Database.

Configuration	Database		
🗬 Service			
🕤 Network	SQL Server:	(local) \SQLEXPRESS	-
🛱 Redundancy	Database:	TRBOnet	-
Database	Authentication:	Windows	-
😪 Reports	Login:		
X Advanced settings	Password:		
Geocoding Servers			
👩 Radio Networks	Specify the path	for database archives	
Remote Agents	D. 11	Dultawa ITOROant	
📷 Friendly Servers	Path:	D:\Temp\TRBOnet	
Telephony Telephony	☑ Use custom folder for audio files		
↓ Data Sources	Path:	D:\Temp\Audio	
🍀 Modbus TCP	raui.	D. (remp (Hadio	
K Email			
NS SMS	Test Conn	ection	
📮 License	Upgrade Data	abase 🔻	
	Create Data	base 🔻	
Set Defaults		Apply OK	Cancel

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

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

Database

Enter the name of the TRBOnet database.

Authentication

Select the authentication method for the TRBOnet database. The default method is Windows Authentication. See also section <u>5.2.1, Database</u> <u>Authentication Methods</u> (page 14).

• 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 Millisecond Channel ID Channel Name System ID System Name Call Type Source Sour	rce Type
Source ID Recipient Recipient Type Recipient ID	
Example:	
D:\Audio\2017\05\23_xxx.wav	
ОК	Cancel

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

#### 5.2.1 Database Authentication Methods

#### 5.2.1.1 Windows Authentication

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



Configuration	Database				
Service     Service     Network     Redundancy     Database     Reports     Service Management     Advanced settings     Service Management     Advanced settings     Service Management     Service Mana	SQL Server: Database: Authentication: Login: Password: ☑ Specify the path for Path: ☑ Use custom folder Path:	D:\Temp\TR	rchives BOnet		•
Content of the second	Test Conne Upgrade Datal Create Datab	base	-	OK	Cancel

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

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

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

#### 5.2.1.2 SQL Server Authentication

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

Configuration	Database			
🖗 Service				
S Network	SQL Server:	(local)\SQLEXPRESS		-
🛱 Redundancy	Database:	TRBOnet		-
Reports	Authentication:	SQL Server		•
Service Management	Login:	sa		
Advanced settings	Password:	******		
Radio Networks	Specify the path fo	or database archives		
Friendly Servers	Path:	D:\Temp\TRBOnet		
Telephony	🗹 Use custom folder	for audio files		
🖗 Data Sources 🍀 Modbus TCP	Path:	D:\Temp\Audio		
🔀 Email				
SMS	Test Conne	ction		
📮 License	Upgrade Datab	base 🔻		
	Create Datab	ase 🔻		
Set Defaults		Apply	ОК	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
✓       Service         ✓       Network         ✓       Redundancy         Database          ✓       Reports         ✓       Revorke         ✓       Advanced settings         ✓       Advanced settings         ✓       Geocoding Servers         ✓       Redio Networks         ✓       Friendly Servers         ✓       Telephony         ✓       Data Sources         ✓       Modbus TCP         ✓       Email         ✓       SMS         ✓       License	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: <ul> <li>O Logon as Local System (Recommended)</li> <li>O Logon as User</li> <li>User name: NS\v.kulinichev</li> <li>Password:</li> </ul> <li>Install Service</li>
	Uiew 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 14) 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		
Conguration	Network interface: Command port: First VoIP port: VoIP protocol:	System Default 4021 4022 Tcp	* \$ <sup>2</sup> * *
Image: Constraint of the second se	Data protocol:  Use broadcast mode for audio Broadcast port: Use proxy server <u>Configure</u> Encrypt data over network	Tcp 5000	*
Set Defaults		Apply	ж

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

#### Network interface

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

Note: If both TRBOnet Server and Dispatch Console are installed on the same PC, then select **127.0.01** (Loopback Pseudo-Interface).

#### Command port

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

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).



#### Use broadcast mode for audio

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

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

#### • Broadcast port

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

#### Use proxy server

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

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

Configure the	e proxy server	Х
Use an a	Iternative server	
Address:	177.71.134.70	
Port:	80	
Authenticat	ion thentication	
Login:	User	
Password:	•••••	
	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		Version: 5.2.0.1312
Service     Network	Save scheduled re	ports	
🖗 Redundancy	Path:	D: Reports	
Database	Format:	Pdf 🔹	
Service Management			
X Advanced settings			
Geocoding Servers			
Radio Networks			
Digital Systems			
Services			
Capacity Plus 1			
Control Station #1			
Analog Control Station:			
Friendly Servers			
7 Telephony			
🜵 Data Sources			
🕂 COM ports			
< >			
Set Defaults		Apply	OK Cancel

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

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

Format

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

# 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	
Service     Network     Redundancy     Database     Reports	Redundant server mode Redundancy Mode: Pass Main servers:	sive -
Service Management	IP Address	Port
X Advanced settings	1 10.10.234.162	4021
Geocoding Servers		
👩 Radio Networks		
📷 Remote Agents		
🔂 Friendly Servers		
🔞 Telephony		
↓ Data Sources		
Rodbus TCP		
K Email		
SMS		
📮 License		
	Add Edit C	Delete 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 Passive Mode and Active Mode on page 373.

• To add a main 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 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 372).

## 5.7 Service Management

The Service Management pane allows you to specify various parameters for the Check Radio, Location, Telemetry, TMS, and Indoor services.

• In the Configuration pane, select Service Management.



Configuration	Service Management		Version: 5.3.0.1661
🗬 Service			
🕤 Network	Presence service		_
🛱 Redundancy	Auto request presence timeout:	5 🛟	minutes
Database	ARS refresh interval:	1440	minutes
Reports			
Service Management	Ignore unregistered Radios		
Advanced settings	Location service		
Radio Networks	GPS restart by inactivity timeout:	5	minutes
Remote Agents	Dispatch Console update interval:	1	seconds
Friendly Servers			seconds
Telephony	Automatic error correction		
↓ Data Sources	Configure		
🔀 Email	Send the latest GPS data to dis	patchers on alert	_
SMS	For the last:	10 🗍	minutes
📮 License	O GPS points:	10 _	
	Telemetry service		
	Request for the status of GPIO	when a radio unit is	powered on
	Text Messaging service		
	Text Message Format:	Sender and Text	•
	Custom Format:	{Sender} {Text}	
	Max. message length:	140 🗘	chars
	Split long message into multiple	messages	
	Indoor service		
	🗹 Remove offline radio from beacon		
	Ignore beacon position on alarm	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.

#### • ARS refresh timeout

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.



Note: 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*).

#### • 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		
☑ 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 Telemetry Service

The **Telemetry Service** group includes the following telemetry-related parameters:

• Request for the status of GPIO when a radio unit is powered on Select this option to enable the server to request the status of a radio unit's telemetry information when the radio is powered on.

#### 5.7.4 Text Messaging Service

The Text Messaging Service group includes the following message-related settings:

#### • 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.

## 5.7.5 Indoor Service

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



Remove offline radio from beacon

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

• Ignore beacon position on alarm if GPS is fixed (only K-TERM) Select this option so that beacon positioning is ignored in case of alarm when a radio transmits valid GPS data.

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

# 5.8 Advanced Settings

• In the Configuration pane, select Advanced Settings.

Configuration	Advanced settings	Version: 5.2.0.1316
<ul> <li>♂ Service</li> <li>◇ Network</li> <li>✓ Redundancy</li> </ul>	Language:	English 👻
Database Reports	Logging level: Administrator Account:	Normal   Enabled   Reset password
Service Management     Advanced settings     Advanced settings     Seconding Servers     Radio Networks	Audio Recording format: Audio Recording codec:	TNA - TRBOnet Audio File   G.711 µ-Law/8000
Friendly Servers Telephony Data Sources Modbus TCP	Measurement system: Latitude/Longitudeformat: TX Passive timeout:	Metric   Degrees, Minutes, Seconds  Unlimited hours
Indubus ICP     Email     SMS     License	Voice Mail timeout: Text Message Passive timeout:	Unlimited + hours
Set Defaults		Apply OK Cancel

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

#### Language

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

Logging level

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

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

#### Administrator Account

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

Reset password

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

#### Audio Recording format

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

# 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         Image: Service Management       Use MapPoint location resolving         MapPoint Application ID:       MapPoint (Default)         Advanced settings       Test         Image: Servers       Server Name         Radio Networks       Server Name         Radio Networks       Google         Radio Networks       Nominatim         Friendly Servers       Nominatim         Test       Server Name         Image: Servers       Server Name         Image:									
<ul> <li>Network</li> <li>Redundancy</li> <li>Database</li> <li>Reports</li> <li>Service Management</li> <li>Advanced settings</li> <li>Value (seconding Servers)</li> <li>Remote Agents</li> <li>Friendly Servers</li> <li>Remote Agents</li> <li>Friendly Servers</li> <li>Telephony</li> <li>Data Sources</li> <li>Modbus TCP</li> <li>Email</li> <li>SMS</li> <li>License</li> </ul>	Configuration	Geocoding Servers							
<ul> <li>Redundancy</li> <li>Database</li> <li>Reports</li> <li>Server Name</li> <li>Advanced settings</li> <li>Advanced settings</li> <li>Server Name</li> <li>Google</li> <li>Google</li> <li>Icongle</li> <li>Nominatim</li> <li>Icongle</li> <li>Nominatim</li> <li>SMS</li> <li>License</li> </ul>	🗬 Service								
Database       Reports       Test         Service Management       Advanced settings       ImapPoint Application D.       Test         Advanced settings       ImapPoint Application D.       ImapPoint (Derbally)       Test         ImapPoint Application D.       ImapPoint Application D.       ImapPoint (Derbally)       Test         ImapPoint Application D.       ImapPoint Application D.       ImapPoint Application D.       Test         ImapPoint Application D.       ImapPoint Application D.       ImapPoint Application D.       ImapPoint Application D.         ImapPoint Application D.       ImapPoint Application D.       ImapPoint Application D.       ImapPoint Application D.       ImapPoint Application D.         ImapPoint Application D.       ImapPoint Application D.       ImapPoint Application D.       ImapPoint Application D.       ImapPoint Application D.         ImapPoint Application D.       ImapPoint Application D.       ImapPoint Application D.	🕤 Network	Use MapPoint location resolving							
Catabase       Reports       Test         Image: Service Management       Advanced settings       Image: Service Management         Image: Advanced settings       Image: Service Management       Image: Service Management         Image: Advanced settings       Image: Service Management       Image: Service Management         Image: Remote Agents       Image: Service Management       Image: Service Management         Image: Remote Agents       Image: Service Management       Image: Nominatim         Image: Telephony       Image: Nominatim       Image: Nominatim <th>🕏 Redundancy</th> <th>MapPoint Application ID: MapPoint (Default)</th>	🕏 Redundancy	MapPoint Application ID: MapPoint (Default)							
Kepold S         Service Management         Advanced settings         Kadio Networks         Remote Agents         Friendly Servers         Telephony         V Data Sources         Modbus TCP         Email         SMS         License         Add         Delete         Request a place name upon receiving GPS coordinates	Database								
Advanced settings Advanced settings Advanced settings Ceocoding Server Name Coogle Coo	😪 Reports	Test							
Addin Actor Sectings         K Geocoding Servers         Radio Networks         Remote Agents         Friendly Servers         Telephony         Data Sources         Modus TCP         Email         SMS         License         Add         Delete         Request a place name upon receiving GPS coordinates	🔅 Service Management								
Radio Networks         Remote Agents         Friendly Servers         Telephony         V Data Sources         Modbus TCP         Email         SMS         License         Add         Delete         Request a place name upon receiving GPS coordinates	🔀 Advanced settings	Server Name							
Remote Agents Friendly Servers Telephony Data Sources Modus TCP SMS License Add Delete Request a place name upon receiving GPS coordinates	Geocoding Servers	Google							
Friendly Servers         Telephony         Data Sources         Modbus TCP         Email         SMS         License         Add         Delete         Request a place name upon receiving GPS coordinates	👩 Radio Networks	Nominatim							
Telephony	📑 Remote Agents								
	Friendly Servers								
Modbus TCP Memail SMS License Add Delete Request a place name upon receiving GPS coordinates	Telephony								
	Data Sources								
SMS Cicense Add Delete Cicense Add Delete Cicense Cice	🍁 Modbus TCP								
License Add Delete Add Delete Add Request a place name upon receiving GPS coordinates	🔀 Email								
Adu     Delete     Request a place name upon receiving GPS coordinates	SMS								
Request a place name upon receiving GPS coordinates	🔫 License	Add Delete							
Set Defaults Apply OK Cancel		Request a place name upon receiving GPS coordinates							
	Set Defaults	Apply OK Cancel							

• In the **Geocoding Servers** pane, specify the following geocoding-related parameters:

#### Use MapPoint location resolving

Select this option to get street addresses from MapPoint, and enter the **MapPoint Application ID**. MapPoint is a service from Microsoft that is used to transform coordinates into street addresses.

#### • Google and Nominatim

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

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

Click Add to add a geocoding server to the system.

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

#### Server Name

Enter the name of your geocoding server.

• Get address by coordinates

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



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

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

#### • Get coordinates by address

Select this option to resolve street addresses to GPS coordinates (for example, for the <u>Search by Address</u> feature). In the box below, enter the server address with the appropriate parameters.

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

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

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

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

#### Request a place name upon receiving GPS coordinates

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

#### 5.9 Radio Networks

By enabling the Radio Networks feature, the TRBOnet Server is able to be connected to a radio system. Otherwise, you should use Remote agents.

- In the Configuration pane, select Radio Networks.
- In the Radio Networks pane, select Enable Radio Networks.
   Or, in the Configuration pane, right-click Radio Networks and choose Use Radio Networks.



Radio Networks	
	Version: 5.2.0.1312
🗹 Enable Radio Networks	
Apply	OK Cancel

• In the Configuration pane, you can select TRBOnet Cloud.

Note: **TRBOnet Cloud** is a customizable feature. Please contact your regional Business/Sales Managers for further details.

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

Configuration		Digit	al Systems				
🖗 Service	~						
🔁 Network		$\checkmark$	Enable Digital Systems				
Redundancy							
Database		C	AI Network:	12		÷	
浸 Reports		c	AI Group Network:	22	5	\$	
Service Management						•	
Advanced settings		R	egistered Digital System	15			
Geocoding Servers			. Name		IP Address	Radio	ID
Radio Networks			Repeater #1		10.10.102.131		64250
			Control Station #1		192.168.98.2		64250
Services			TRBOnet Swift Agent#1		10.10.110.191		64250
TRBOnet Swift Agent#1							
Analog Control Stations							
Remote Agents							
Friendly Servers							
Telephony							
P Data Sources							
K Modbus TCP			Add Delete				Test
	$\sim$						
K Email	· ·						

• In the **Digital 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.

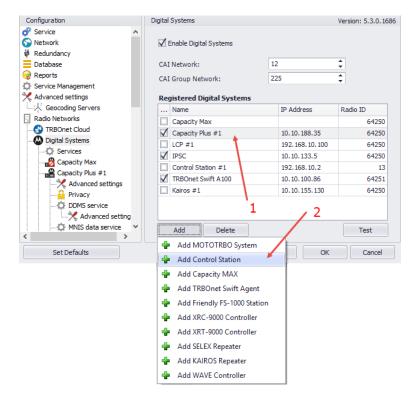


#### CAI Group Network

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.

## 5.9.1 Digital Systems



All radio systems based on MOTOTRBO services are represented in the **Registered Digital 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).

#### 5.9.2 Services

• In the Configuration pane, under Digital Systems, select Services:



Service					
Network	🗹 Automatic Registr	ation servic			
Redundancy	Port:	4005	\$		
Database Reports	✓ Telemetry service	(TT M)			
Service Management	Port:	4008	*		
Advanced settings			•		
人 Geocoding Servers	Text Messaging s				
Radio Networks	Port:	4007	\$		
Digital Systems	🗹 Location service (	GPS / Indoo	or)		
Services	Port:	4001	* *		
Advanced settings	Text Messaging s	ervice DMR			
Privacy	Port:	5016	*		
DDMS service			Ÿ		
MNIS data service	Indoor service (K-				
Advanced settings	Port:	3022	÷		
Audio Paths	Indoor LAN Servio	e (K-TERM)			
Control Station #1	Port:	3001	<u>.</u>		
Advanced settings		orvico			
TRBOnet Swift Agent#1	Tallysman Sprite s				
Advanced settings	Port:	4004	* *		
Analog Control Stations	E FS 5000 location	service (GPS	5)		
Remote Agents	Port:	4004	<u></u>		
Friendly Servers					
Telephony	Swift.Tracker v.1				
Data Sources	Port:	4004	÷		
Modbus TCP	Swift.Tracker v.1	service (IP	channel)		
Email	Port:	4080			
SMS License	Swift.Tracker v.2	service			
	Port:	4104	÷		
	Swift.Tracker v.2	service (IP	channel)		
	Port:	4180			
	Extended Text Me	essaging se	rvice		
	Port:	4010	÷		
	Telemetry service	Novox			
	Requests port:	8090			
	Events port:	8091	* *		
	G4S RS232 servic	e			
	Port:	4004	* *		
	Zebra printer serv	/ice			
	Port:	4072	* *	Configure	
	Forward Data ser	vice			
	Port:	4011	*		
	1010		Ŧ		

• In the **Services** pane, specify the following Digital 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.

#### 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).

## 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).

# 5.9.3 Adding a Control Station

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

• In the drop-down menu, click Add Control Station.

Configuration	Control Station #1		
🔗 Service 🔨 🔨			
S Network	Name:	Control Station #1	
🖗 Redundancy	Radio ID:	64250	
Database			
😪 Reports	IP Address:	192.168.98.2 • 🕫 Test	
Service Management	Mode:	IP Site Connect	•
X Advanced settings	System Identifier:	Department 1	
Geocoding Servers	by been recenter	Department 1	
Radio Networks	Use the radio for RX D	ata only (GPS Revert or Data Revert)	
🐼 Digital Systems	Playback device:	Speakers (Logitech USB Headset)	<b>-</b> ¢
- O Services	· · ·		
Control Station #1	Recorder device:	Line In (2- High Definition Audio Device)	<b>-</b> ¢
Advanced setti			
Analog Control Station:			
Remote Agents			
Friendly Servers			
7 Telephony			
↓ Data Sources ↓			
< >			
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>5.9.3.1, Control Station</u> <u>Connection Modes</u> (page 34).

#### System Identifier

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

## Use the radio for RX data only (GPS Revert or Data Revert)

Select this option to configure the radio channel so that it will only receive data, thus having no transmission capability.

## Playback device

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

### Recorder device

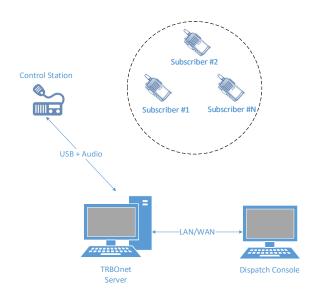
From the drop-down list, select the recording device on the PC that will be used to receive audio data from the control station connected via a line-in jack.

## 5.9.3.1 Control Station Connection Modes

## **Single Control Station**

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



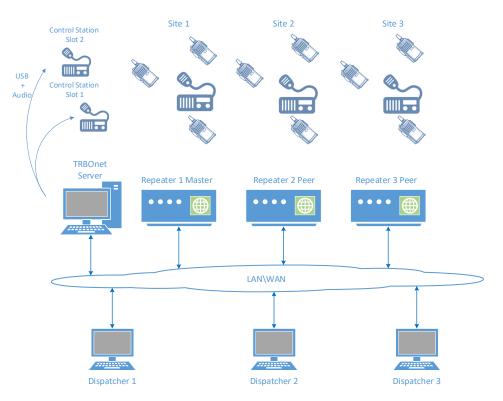


## **IP Site Connect**

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

The Server Connection Modes are as follows:

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





#### **Common Channel**

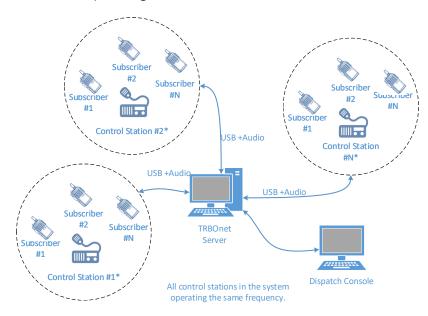
The Common Channel is a mode where it is possible to use multiple simplex base stations operating at the same frequency with overlapping communication zones.

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

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

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

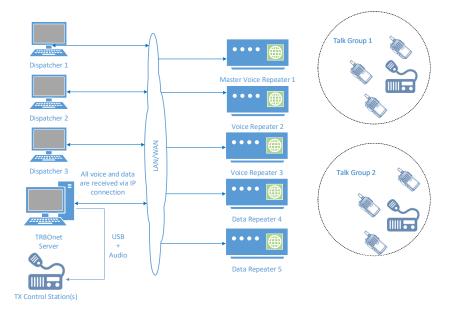
The recommended way to use this mode is as follows: each base station is configured with its own color code, and radio units are equipped with option boards having a Geo-roaming feature, and each geographic area is assigned its own radio channel with the corresponding color code.



## **Capacity Plus TRBOnet**

Capacity Plus TRBOnet is a limited option. All voice and data are received via IP. At least one control station is required for outgoing voice and data session at a time. Private calls and SIP calls require dedicated control stations unless NAI protocol is used.

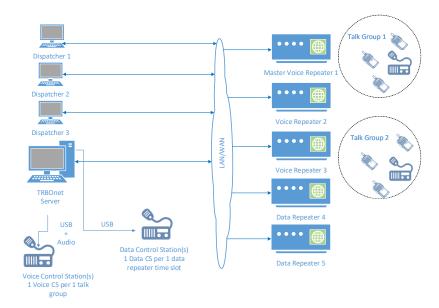




# **Capacity Plus MOTOTRBO**

Capacity Plus MOTOTRBO 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 MOTOTRBO is to support more simultaneous voice and data transmissions within one capacious system.

In the Capacity Plus MOTOTRBO mode you can configure voice and data control stations to transmit and receive data over the air as it is displayed in 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.





## 5.9.3.2 Advanced Settings

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

Configuration		Advanced settings			
Configuration Service Network Redundancy Database Reports Service Management Advanced settings Remote Agents Advanced settings Control Station #1 Analog Control Stations Remote Agents Remote Agents	^	Advanced settings  Automatically reset ala Automatically handle of Emergency Call/Alarm Use front microphone Always transmit when Use serial port for PTT Serial port: TX Timeout: Signaling System: Allow CSBK Data	all alert indication the PTT is pre	essed ("Impoli 	te" channel access) seconds Configure
Friendly Servers					
Telephony Telephony					
↓ Data Sources					
🍀 Modbus TCP					
🔀 Email	4				
Set Defaults			A	pply	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.

nfigure Select 5				×
Voice Calls				*
Call Type	Telegram ID	Source ID	Target ID	<u></u>
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	-0
1	Decoder:	A1 A2 A3 A4		
Check Radio				*
Call Alert				*
Enable Radio				×
Disable Radio				*

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

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

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

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

## • Quick Call II MOTOTRBO

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

# Allow CSBK Data

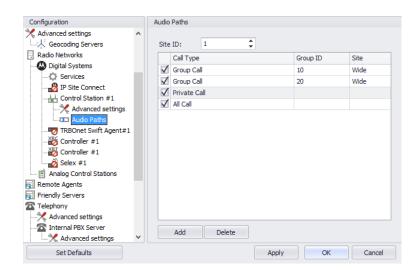
Select this option so that GPS data is sent in a single CSBK.



## 5.9.3.3 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**.



- 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.

## 5.9.4 Adding a MOTOTRBO Repeater

- In the **Digital Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Digital Systems**.
- In the drop-down menu, click Add MOTOTRBO System.



Configuration		Dig	gital Systems			
<ul> <li>Service</li> <li>Network</li> <li>Redundancy</li> </ul>		^	🗹 Enable Digital Sy	stems		
Database     Reports     Service Management			CAI Network: CAI Group Network	a	12 225	* *
Advanced settings			Registered Digita	l Systems	IP Address	Radio ID
Radio Networks			Name		IP Address	Radio ID
Digital System	ት 🛛 Add Co	ntrol Sta	ation	1		
Analog Contro	🖶 🛛 Add M	OTOTRB	O System			
Remote Agents	🖶 🛛 Add TF	BOnet S	wift Agent			
	👆 🗛 🕂	endly FS	-1000 Station			
Telephony	👆 🗛	C Contro	oller			
* Modbus TCP	🚽 🗛 🕂	T Contro	oller			
Email ,		LEX Repe		Delete		Test
	× Remov	e All		Delete		Test
Set Defaults	Set Def	aults			Apply	OK Cancel

• In the **Repeater** pane, specify the connection parameters.

To ensure your connection parameters match the actual configuration of your radio network, you may need to use Motorola CPS or Config Advisor tools to determine the values. Contact your radio network administrator, if you do not have this information.

Configuration		Repeater #1				
💣 Service	^					
S Network		System Name:	Repea	iter #1		
🕏 Redundancy		TRBOnet Peer ID:	100		\$	
Database		TRBOnet Radio ID:	64250		▲ _	
Reports					▼ ▲	
Service Management		TRBOnet Local Port:	50000		Ŧ	
X Advanced settings		Master Repeater Conn	ection	Info:		
Geocoding Servers		Master IP Address:	10.10.	102.131	-	
Radio Networks		Master UDP Port:	50011		Test	
Services		Authentication Key:	99999			
Repeater #1		System Type:	IP Site	Connect		-
Advanced settings						_
Privacy		System Identifier:	Depar	tment1		
<b>III</b> Slot #1		Use NAI Voice				
		Use NAI Data (MNIS an	d DDMS	5)		
Local Slots		Use RCM for control rac	lio activ	ity		
Control Station #1						
Analog Control Stations						
Remote Agents						
Friendly Servers	~					
Set Defaults				Apply	ОК	Cancel

## System Name

Enter a name of 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 362).

#### 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 362).

### • 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.

## 5.9.4.1 Advanced Settings

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

Configuration	Advanced settings			
	Voice Call Hang Time	(ms):		
🛱 Redundancy	Group Call:	3000		
Database	Private Call:	4000		
😽 Reports				
Service Management	Emergency Call:	4000		
🔀 Advanced settings	TX Preamble:	400	-	
Geocoding Servers	TX Preamble:	120		
Radio Networks	TX Timeout:	60 🌲	seconds	
Digital Systems				
Services	Phone System:	Motorola Phone System		-
Repeater #1	Allow CSBK Data			
	Allow Cobic Data			
Privacy				
<b>III</b> Slot #1				
Local Slots				
Analog Control Stations				
Remote Agents				
Friendly Servers				
Set Defaults		Apply	ОК	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 359).

#### • 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.

## 5.9.4.2 Privacy

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

Configuration		Privacy						
💣 Service	^							
S Network		Privacy Type:		Enhand	ted	•		
🛱 Redundancy		Basic Privacy Key II	D:	1		<u>_</u>		
Database		Enhanced Algorithm		40.04	(40.1-11)	×.		
😪 Reports		-		ARC4	(40 bit)	•		
Service Management		Enhanced Privacy K	eys:					
💥 Advanced settings		ID Name				Value		
Geocoding Servers		1 🗘						
Radio Networks								
Services								
X Advanced settings								
🔒 Privacy								
<b>III</b> Slot #1								
Slot #2								
Local Slots								
Analog Control Stations								
Remote Agents		Add	Remo					
Friendly Servers	×	nud	Kenio	v.				
Set Defaults					Apply		ОК	Cancel



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

## Privacy Type

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

## Basic Privacy Key ID

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

## Enhanced Algorithm

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

# Enhanced Privacy Keys

Here you add enhanced privacy keys for the selected enhanced algorithm.

• Click **Add** and specify the required ID, name, and value for the privacy key being added.

## 5.9.4.3 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 se	ervice						
🗬 Service 🛜 Network	^	🗸 Use	DDMS	service					
Redundancy		Loca	l port	:	0		÷		
Database		Serv	ice IP	Address:	127.0.0	.1	-	Test	
Reports									
Service Management		Serv	ice po	rt:	3000		Ŧ		
Advanced settings		Auth	nentica	ation Port:	5055		÷		
Geocoding Servers			-		_				2
Radio Networks		Radi	o ID li	st:					?
Digital Systems		Red	undan	t services:					
Services				Service IP A	Address	Service port		Local port	
Repeater #1		1	$\checkmark$	10.10.101.	207	3000		0	
Advanced settings		-		L		1			
Privacy									
DDMS service									
MNIS data service									
Local Slots									
K Control Station #1						1	6	10	
Analog Control Stations	~		Add		elete			Test 🔺	▼
Set Defaults						Apply		OK Car	ncel

- 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.

#### Radio ID list

Enter the list of radios to be monitored.

#### 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.

#### 5.9.4.4 MNIS Data Service

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

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

Configuration       MNIS data service         Image: Service       Image: Service         Image: Service       Image: Service         Image: DataBase       Image: Service         Image: Service Management       Image: Service Management         Image: Advanced settings       Image: Service Management         Image: Service Management       Image: Service Management         Image: Service Service       Image: Service Management         Image: Service Service       Image: Service Service         Image: Service Service       Image: Service Service         Image: Service Service Service       Image: Service Service         Image: Service Service Service Service       Image: Service Service Service Service<	
Network       ✓ Use Data Gateway         ✓ Redundancy       ✓ Service is on a local host         ☑ Database       ✓ Service is on a local host         ☑ Service Management       ✓ Advanced settings         ✓ Advanced settings       ✓ Control port: 5000 < Test	
<ul> <li>Redundancy</li> <li>Database</li> <li>Reports</li> <li>Service Management</li> <li>Advanced settings</li> <li>Geocoding Servers</li> <li>Radio Networks</li> <li>Digital Systems</li> <li>Services</li> <li>Repeater #1</li> <li>Advanced setting</li> </ul>	
Database       IP Address:       172.168.10.2 ▼ ¢³         IP Address:       172.168.10.2 ▼ ¢³         Service Management       IP Address:       172.168.10.2 ▼ ¢³         Advanced settings       IP Address:       1000 ♀         IP Address:       IP Address:       1000 ♀         IP Address:       IP Address:       IP Address         IP Address:       IP Address       IP Address         IP Address:       IP Address       Control port         IP Address       Control port       Local port	
Database     Reports     Service Management     Advanced settings     Radio Networks     Repeater #1     Advanced settit	
Reports       Inductor       Inductor       Inductor         Reports       Inductor       Inductor       Inductor         Advanced settings       Image: Control port:       5000       Image: Control port:       Image: Control port:         Advanced settings       Image: Control port:       MNIS Service:       MOTOTRBO Network Interface Service         Radio Networks       Image: Control port       Local port         Services       Image: Control port       Local port         Repeater #1       Image: Control port       Local port	
Advanced settings	
Radio Networks       Redundant services:         Bradio Networks       IP Address         Control port       Local port         Repeater #1       X advanced setti	
Redundant services:  Redundant services:  Redundant services:  Redundant services:  Redundant services:  IP Address Control port Local port Local port Advanced setti	- \$ ?
Radio Networks     IP Address     Control port     Local port       Objectal Systems     Repeater #1     Advanced setti     IP Address	. [ -
Digital Systems       Services       Repeater #1       Advanced setti	
Repeater #1	
Advanced setti	
Privacy	
DDMS service	
MNIS data serv	
Advanced :	
Add Delete Test	
< > > Add Delete	
Set Defaults Apply OK	



- 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.



C	Adversed colline
Configuration	Advanced settings
💣 Service 🔺	
S Network	Add network routes to the Windows routing table
🛱 Redundancy	Add port forwarding rules to the remote MNIS service
Database	Add port forwarding rules to the remote Mixts service
😪 Reports	Send data to group over control port
Service Management	Radio Range: 1 + 16777215
🔀 Advanced settings	
Geocoding Servers	
Radio Networks	
Digital Systems	
Services	
Repeater #1	
Advanced settings	
Privacy	
DDMS service	
Advanced settings	
MNIS data service	
Advanced settings	
Audio Paths	
Set Defaults	Apply OK 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.

## 5.9.4.5 Slots

- Note: The slots are available only when IP Site Connect is selected in the Repeater pane.
  - In the Configuration pane, under the corresponding Repeater, select Slot #1 or **Slot #2**.



Configuration	Slot #1
Service Network Redundancy Database Reports Service Management Advanced settings Advanced settings Advanced settings Oligital Systems Services Repeater #1 Advanced setti Privacy Slot #1 Cill Local Slots Control Station #1 v Control Station #1 v	✓ Slot #1         Name:       IPSC1         Messaging Delay:       Normal         Use the slot for RX Data only (GPS Revert or Data Revert)         Use Privacy         Privacy Key:         Allow TX interrupt         Allow TX interrupt         Allow TX interrupt         Private Call Confirmed         Private Call Confirmed         ✓ Emergency Jahrn Ack         ✓ 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 TX interrupt

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

Note: This feature is available only when the **Use NAI Voice** option is cleared in the **Repeater** pane.



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

#### 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 cleared 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.

# 5.9.4.6 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 cleared, local slots will be available only through dedicated control stations.
  - In the **Configuration** pane, under the corresponding **Repeater**, select **Local Slots**.



Configuration	Lo	ocal Slots			
🖗 Service 🕥 Network	^	Load Peers Map			
Redundancy		Name		Peer ID	Peer Slot
Database		✓ Local Brine's		1002	Slot #1
Reports					
Service Management					
Advanced settings					
Geocoding Servers					
Radio Networks					
- 🙆 Digital Systems					
🗘 Services					
Repeater #1					
X Advanced settings					
🔒 Privacy					
DDMS service					
MNIS data service					
Advanced settings					
<b>III</b> Slot #2					
Local Slots		Add Remove			Configure
Control Station #1	¥	- Remove			comgare
Set Defaults			Apply	ОК	Cancel

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

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

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

Name:	Local Brine's		
Messaging Delay:	Normal	•	
Use the slot for RX	Data only(GPS Re	vert or Data Revert)	
Use Privacy			
Privacy Key:		Ψ.	
Allow TX interrupt			
🔲 Always transmit wh	en the PTT is pres	sed ("Impolite" channel	access)
Data Call Confirme	d		
Private Call Confirm	ned		
Emergency Alarm A	\ck		
Emergency Call/Ala	rm Indication		

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

## 5.9.4.7 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	1	Audio	Paths			
Network Redundancy	^	Loa	d Groups Map			
Patabase			Call Type	Group I	D	Site ID
Reports		$\checkmark$	Group Call	10		Wide
Service Management		$\checkmark$	Group Call	20		Wide
Advanced settings		$\checkmark$	Private Call			
		$\checkmark$	All Call			
. Radio Networks						
Digital Systems						
Services						
IP Site Connect						
Privacy						
DDMS service						
MNIS data serv						
Advanced :			-			
Audio Paths	_					
Control Station #1						
	~		Add Delete			Configure
×						

- 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>.

## 5.9.5 Adding a TRBOnet Swift Agent

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

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



Configuration		TRBOnet Swift Agent#1		
🗬 Service	^			
🕤 Network		Name:	TRBOnet Swift Agent#1	
🕏 Redundancy		Radio ID:	64250	
Database				
😪 Reports		IP Address:	10.10.110.191 🔹	
🔅 Service Management		Port:	8002 🗘	Test
🔀 Advanced settings		Mode:	Single Control Station	
Geocoding Servers		Mode:	-	
Radio Networks		System Identifier:	Department2	
		Lise the radio for RX D	ata only (GPS Revert or Da	ta Revert)
Services				ancrery
		VoIP port:	4000 🗘	
		Audio Format:	PCM 8 kHz 16 bit	•
TRBOnet Swift Agent#1				
🔀 Advanced settings				
🐺 🛱 Redundancy				
Analog Control Stations				
🔂 Remote Agents				
Friendly Servers				
🔞 Telephony				
↓ Data Sources	¥			
Set Defaults			Apply	OK 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).

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>5.9.3.1, Control Station</u> <u>Connection Modes</u> (page 34).

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.

#### 5.9.5.1 Advanced Settings

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

Configuration		Advanced settings			
💣 Service	^				
🛜 Network		Automatically reset	alarm mode		
🖗 Redundancy		Emergency Call/Alar	m Indication		
Database		Always transmit whe	n the PTT is pressed	("Impoli	te" channel access)
😪 Reports		TX Timeout:	60		seconds
🔅 Service Management				•	
🔀 Advanced settings		PTT Mode:	KeyUp / DeKey	•	
Geocoding Servers		Signaling System:	None	•	Configure
Radio Networks					
Services					
TRBOnet Swift Agent#1					
X Advanced settings					
🔤 🛱 Redundancy					
Analog Control Stations					
Remote Agents					
Friendly Servers					
🔞 Telephony					
∲ Data Sources	~				
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.

# 5.9.5.2 Redundancy

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

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



Configuration		Rec	lundan	су		
Service	^	Re	dundar	nt agents:		
Network				IP Address	Port	Local Port
Redundancy Database		1	$\checkmark$	10.10.0.210	8002	0
Reports						
Service Management						
Advanced settings						
Geocoding Servers						
Radio Networks						
Digital Systems						
Services						
Repeater #1						
Control Station #1						
TRBOnet Swift Agent#1						
Advanced settings						
Redundancy						
Analog Control Stations						
Remote Agents						
Friendly Servers						
Telephony			Add	Delete		Test 🔺 🔻
↓ Data Sources	~		Auu	Delete		
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.

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



Configuration		Controller #1				
Geocoding Servers	^					
Radio Networks		Name:	Controller #1			
Digital Systems		IP Address:	192.168.0.250	•	Test	
		System Identifier:	Connect Plus 1			
Control Station #1		Radio ID list:	105,111			?
TRBONET Swift Agent#1						
Friendly Servers						
Telephony						
$\Psi$ Data Sources						
K Modbus TCP						
Email						
SMS	*					
Set Defaults			Apply		ОК	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.

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".

## 5.9.6.1 Advanced Settings

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



Configuration		Advanced settings					
Geocoding Servers	^						^
Radio Networks		Automatic Registration	service (ARS)				
Digital Systems  Digital Systems  Control Station #1  TRBOnet Swift Agent#1  Control Fall  Advanced settings  Redundancy		Controller port: Local port: Controller port: Local port:	4001 4001				
Analog Control Stations		Use adaptive GPS tri	gger				
Remote Agents		🗹 Text Messaging service	(TMS)				
📑 Friendly Servers 🔞 Telephony		Controller port:	4007	÷			
Pata Sources		Local port:	4007	÷			
Kodbus TCP		Dispatcher ID:	64250	÷			
Kemail SMS ↓ License	•	Multi Gate Connection	1	A V			*
Set Defaults			Apply		ОК	Cancel	

- In the **Advanced Settings** pane, specify the following XRC controller-related advanced settings:
  - 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.

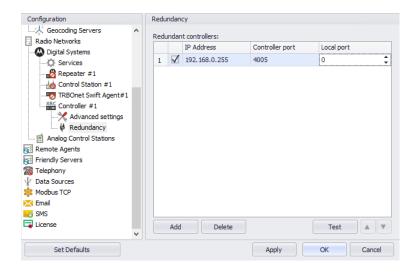
# Multi Gate Connection

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

## 5.9.6.2 Redundancy

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

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



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

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

Controller Port

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

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



## Local Port

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

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

Configuration		Controller #1				
Geocoding Servers	^					
Radio Networks		System Name:	Controller #1			
🚱 Digital Systems		Radio ID:	64250	\$		
Services		Start Local Port:	0	*		
			-	•		
		XRT-9000 Controller I	info:			
		Controller IP Address:	192.168.0.225	•		
XRC Controller #1		Controller TCP Port:	10001	\$	Test	
-X Advanced settings		User Name:	Admin	•		
🐺 🕸 Redundancy		User Name;	Admin			
Controller #1		Password:	•••••			
🔒 Privacy		System Identifier:	Connect Plus 1			
🎲 Data Path		_				
Audio Paths		Monitor Voice sessions	s (without audio)			
🗰 韓 Redundancy						
Analog Control Stations						
Remote Agents						
Friendly Servers						
👸 Telephony						
P Data Sources	۷					
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.

## 5.9.7.1 Privacy

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

Configuration		Privacy					
Geocoding Servers	~						
Radio Networks		Privacy Typ	e:	Enhanced	-		
Digital Systems		Basic Privac	v Kev ID:	1			
Services				-	Ψ.		
Repeater #1		Enhanced A	lgorithm:	ARC4 (40 bit)	•		
Control Station #1		Enhanced P	rivacy Keys:				
TRBOnet Swift Agent#1		ID	Name		Value		
XRC Controller #1		1	A		*****	*****	
Advanced settings							
Redundancy							
XRT Controller #1							
Privacy							
Data Path							
Audio Paths							
🛱 Redundancy							
Analog Control Stations							
Remote Agents							
Friendly Servers							
7 Telephony		Add	Remo	ove			
↓ Data Sources	<b>Y</b>						
Set Defaults				Apply		OK	Cancel

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

# Privacy Type

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

Basic Privacy Key ID

Enter the Privacy Key ID available for the **Basic** Privacy Type.



## Enhanced Algorithm

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

## Enhanced Privacy Keys

Here you add enhanced privacy keys for the selected enhanced algorithm.

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

#### 5.9.7.2 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	
K Geocoding Servers     Radio Networks     Digital Systems     Services     Repeater #1     Control Station #1     TRBOnet Swift Agent#1     K Controller #1     K Advanced settings     Redundancy     XII Controller #1     Privacy     Diata Path     TABOnet Swift Agent#1     Redundancy     XII Control Stations	Data Service: Radio ID:	Autodetect
Remote Agents     Friendly Servers     Telephony     Joata Sources     Set Defaults	•	Apply OK Cancel

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

#### Data Service

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

Radio ID

Enter the Radio ID of the data service.

### 5.9.7.3 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**.



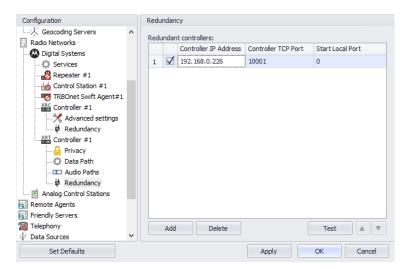
Configuration		Audio Paths		
Geocoding Servers	^			
Radio Networks		Call Type	Source ID	Target ID
Digital Systems		Group Call		10
		Group Call		20
- 🛃 Repeater #1		Private Call	64250	
Control Station #1		All Call		
TRBOnet Swift Agent#1				
XRC Controller #1				
Advanced settings				
Redundancy				
Controller #1				
💭 Data Path				
Audio Paths				
🔤 🐺 Redundancy				
🛄 Analog Control Stations				
Remote Agents				
Friendly Servers				
👸 Telephony		Add Delete		Configure
🖞 Data Sources	۷			Gornigare
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.

## 5.9.7.4 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.

# 5.9.8 Adding a Selex Repeater

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

- In the **Digital Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Digital Systems**.
- In the drop-down menu, click Add SELEX Repeater.

Configuration	Se	lex #1			
Controller #1 Controller #1 Contro	^ N R	lame: Ladio ID: Lepeater Mode:	Selex #1 64250 Digital	\$	•
Set Defaults			Apply	ОК	Cancel

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

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



## Radio ID

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

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

## Repeater Mode

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

## 5.9.8.1 Advanced Settings

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

Configuration	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Advanced settings				
Geocoding Servers	^					
Radio Networks	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Keep Alive Interval:	10	÷	seconds	
Digital Systems	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	TX Timeout:	60	\$	seconds	
Services				•		
	~~~~~					
TRBOnet Swift Agent#1						
Controller #1						
Controller #1						
Selex #1						
Advanced settings						
Slot #2						
Analog Control Stations	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					
Friendly Servers						
Telephony						
Data Sources						
* Modbus TCP	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					
Email	~					
Set Defaults				Apply	ОК	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, 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).

## 5.9.8.2 Slots

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

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



Configuration		Slot #1					
Geocoding Servers	^	✓ Slot #1					
Digital Systems		Name:	Slot 1				
🌣 Services		TRBOnet IP Address:	10.10.100.99	- ¢	Port:	6080	1
		SELEX IP Address:	10.10.9.30		Port:	6080	*
		SELEX IF Address.	10.10.5.30		i or c.	0000	*
TRBOnet Swift Agent#1			Test				
Controller #1		Use the estemay for D	V Data only (CDC D	overt e	Data D	owort)	
Controller #1		Use the gateway for RX Data only (GPS Revert or Data Revert) Use Encryption Always transmit when the PTT is pressed ("Impolite" channel access) Data Call Confirmed					
Advanced settings							
Slot #1							
Slot #2		Private Call Confirmed					
Analog Control Stations		Private Call Confirmed					
Remote Agents							
Friendly Servers							
🔞 Telephony							
🖞 Data Sources							
🍀 Modbus TCP							
🔀 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.

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.



## 5.9.8.3 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	
Geocoding Servers	▲ V Tier III	
Digital Systems	Name:	Tier III
Services	TRBOnet IP Address:	10.10.100.99 - Ø Port: 6080 🗘
	SELEX IP Address:	10.10.9.30 - Port: 6080
	SELEX I Address.	10.10.5.50
TRBOnet Swift Agent#1		Test
Controller #1	Use the gateway for P	X Data only (GPS Revert or Data Revert)
Controller #1	Use Encryption	A Data only (di Sikever tor Data kever ty
Advanced settings		the PTT is pressed ("Impolite" channel access)
Tier III	Data Call Confirmed	are i i i i pressea ( importe : enannei access)
Audio Paths	Private Call Confirmed	
Analog Control Stations	Y mate can comme	
Remote Agents		
Friendly Servers		
🔞 Telephony		
↓ Data Sources		
🍀 Modbus TCP		
🔀 Email	<b>~</b>	
Set Defaults		Apply OK Cancel

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

## Use Encryption

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

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

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
		Audio Pauls
Radio Networks	^	Call Type Group ID
Digital Systems		Group Call 10
Services		Group Call 20
Repeater #1		V Private Call
Control Station #1	-1	☑ All Call
TRBOnet Swift Agent#1		
Controller #1		
Controller #1		
Selex #1		
Advanced settings		
Tier III		
Audio Paths		
Analog Control Stations		
Remote Agents		
Friendly Servers		
📷 Telephony		
↓ Data Sources		
🍀 Modbus TCP		Add Delete
🔀 Email	¥	
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.

### 5.9.8.4 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	Analo	g					
Geocoding Servers	^ I	Analog					
Digital Systems		Name:	Analog				
🗘 Services		TRBOnet IP Address:	10.10.100.99	<b>-</b> ¢	Port:	6080	<b>1</b>
		SELEX IP Address:	10.10.9.30	-	Port:	6080	*
		SELEX II Address.	10.10.5.50	-	i or c	0000	*
TRBOnet Swift Agent#1			Test				
Controller #1		Use the gateway for I	RX Data only (GPS F	levert or	Data H	levert)	
Selex #1		Use Encryption					
Advanced settings	[	Always transmit when	the PTT is pressed	("Impoli	te" char	nnel acci	ess)
Analog		Always transmit when Data Call Confirmed	the PTT is pressed	("Impoli	te" char	nel acc	ess)
Analog		<b>C</b>		("Impoli	te" char	nnel acci	ess)
Analog Control Stations		Data Call Confirmed		("Impoli	te" char	nel acc	ess)
Analog		Data Call Confirmed		("Impoli	te" char	nel acc	ess)
Analog Control Stations		Data Call Confirmed		("Impoli	te" char	nnel acco	ess)
Analog     Analog Control Stations     Remote Agents     Friendly Servers     Telephony     Data Sources		Data Call Confirmed		("Impoli	te" char	nnel acci	ess)
Analog Analog Control Stations Remote Agents Friendly Servers Telephony		Data Call Confirmed		("Impolii	te" char	inel acci	ess)
Analog     Analog Control Stations     Remote Agents     Friendly Servers     Telephony     Data Sources		Data Call Confirmed		('Impoli	te" char	nel acci	ess)
Analog  Analog Control Stations  Remote Agents Friendly Servers  Telephony  Data Sources Modbus TCP  Email		Data Call Confirmed		('Impoli	te" char	inel acci	ess)

• 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.

### 5.9.9 Adding a Kairos Repeater

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

- In the **Digital Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Digital Systems**.
- In the drop-down menu, click Add KAIROS Repeater.

Configuration		Kairos #1	Version: 5.2.5.1409
Radio Networks     TRBOnet Cloud     Digital Systems     Digital Systems     Capacity Max     Capacity Max     Capacity Plus #1     Digital Systems     Control Station #1     Kairos #1     Slot #1     Slot #2     Analog     Ranoc Agents	^	Kairos #1 Name: IP Address: User Name: Password: Radio ID: Repeater Mode:	Version: 5.2.5,1409 Kairos #1 10.10.155.130  kairos tairos tairos test 64250 Mixed (Analog and Digita)
Friendly Servers			
Telephony	×		
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.

#### 5.9.9.1 Advanced Settings

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

Configuration		Advanced settings				Version: 5.2.5.1409
Service Management	^					
🔀 Advanced settings		Keep Alive Interval:	10	÷	seconds	
Geocoding Servers		TX Timeout:	60	÷	seconds	
Radio Networks				•		
		Voice Call Hang Time (	ms):			
Digital Systems		Group Call:	3000	÷		
Services						
		Private Call:	4000	•		
Capacity Plus #1		Emergency Call:	4000	÷		
Kairos #1						
X Advanced settings						
Slot #1						
Slot #2						
Analog						
Analog Control Stations	<b>v</b>					
< >						
Set Defaults			-	Apply	ОК	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.

### 5.9.9.2 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: 5.2.5.1409
Geocoding Servers	^ √ Slot #1	
TRBOnet Cloud	Name:	Slot 1
Digital Systems	Audio Codec:	G.711 µ-Law/8000 👻
Capacity Max	Audio port KAIROS:	40000
Capacity Plus #1	Audio port TRBOnet	40000 🗘
	Data port KAIROS:	40001
Control Station #1	Data port TRBOnet:	40001
Kairos #1		
Slot #2		
Analog Control Station:		
Remote Agents		
Friendly Servers	v	
>		
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.

## 5.9.10 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 **Digital Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Digital Systems**.
- In the drop-down menu, click Add WAVE Controller.

Configuration	Wave controller #1		Version: 5.3.0.1686
Advanced setti A	Name: Connection:	Wave Server 1	
Control Station #1	Controller IP Address: Controller Port:	10.10.150.110     ▼       4502     ↓	
Wave Server 1 Wave Server 1 Analog Control Station:	TRBOnet Local Port: User Name:	0 🗘 test4	
Remote Agents	Password: Profile:	******* all-channels	•
Telephony Advanced settings Internal PBX Server		Test	
Advanced settings			
< > Set Defaults		Apply	OK Cancel

- In the **Wave Controller** 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.

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.

## 5.10 Analog Control Stations

TRBOnet Dispatch Software allows using analog radios as control stations.

- In the Configuration pane, select Analog Control Stations
- In the Analog Control Stations pane, select Enable Analog Control Stations.

Configuration		Analog Control Stations	
	^	Enable Analog Control Stations	
Digital Systems     Services     Repeater #1     Control Station #1     TR8Onet Swift Agent#1     Controller #1     Selex #1     Analog     Analog Control Stations     Control Station A1     Remote Agents     Tredphony     Ve Data Sources		Name     Serial Port       Image: Control Station A1     COM1	
* Modbus TCP	<b>,</b>	Add Delete	
Set Defaults		Apply OK Canc	el

### 5.10.1 Adding an Analog Control Station

• In the Analog Control Stations pane, click Add.

Configuration		Control Station A1				
	^					
Radio Networks		Name:	Control Station A1			
🗘 Services		Playback device:	Primary Sound Driver		- ¢	5
		Recorder device:	Primary Sound Capture D	river	- ¢	5
				,		
		Serial port:	COM1 •			
🌃 Controller #1			the PTT is pressed ("Impol			
		Always transmit when	the PTTTIs pressed (Impoi			
Selex #1		TX Timeout:	60 🗘	seconds		
		Mic delay time:	0	milliseconds		
. Analog			•			
Analog Control Stations						
Control Station A1						
Remote Agents		Extended protocol:	None		-	-
Friendly Servers						
Telephony Telephony						
$\Psi$ Data Sources						
🍀 Modbus TCP						
K Email	¥					
Set Defaults			Apply	ОК	Cancel	

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



#### Name

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

#### Playback device

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

#### 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.

### 5.10.1.1 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					
→ K <sup>z</sup> Geocoding Servers	^						
Radio Networks		Baud Rate:	19200		\$		
		Data Bits:	8				
Services		bata bitar	-		•		
		Parity:	None		•		
		Stop Bits:	1		•		
TRBOnet Swift Agent#1			None		•		
Controller #1		Handshake:	None		*		
Controller #1							
Selex #1							
Analog							
Analog Control Stations							
Serial Port							
Remote Agents							
Friendly Servers							
78 Telephony							
↓ Data Sources							
CP Modbus TCP	۷						
Set Defaults				Apply		OK	Cancel

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

## 5.11 Remote Agents

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

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

Configuration	Re	emote	e Agents			
Radio Networks	^	Regis	stered remote Agents:			
Services			Agent Name	IP Address	Port	Redundancy
		$\checkmark$	Agent: 1	10.10.110.190	4020	No
TRBOnet Swift Agent#1						
- 👸 Controller #1						
Controller #1						
Selex #1						
🛛 🎇 Advanced settings						
Analog						
Analog Control Stations						
Control Station A1						
🛄 📅 Serial Port						
Remote Agents						
Agent: 1						
Redundancy						
Friendly Servers				_		
Telephony Telephony			Add Delete			Test
↓ Data Sources	¥					
Set Defaults				Apply	OK	Cancel

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



onfiguration	Agent: 1	
Radio Networks  Digital Systems  Provides  Repeater #1  Control Station #1  Repeater #1  Controller #1  Selex #1  Advanced settings Analog  Analog  Analog Control Station A1  Remote Agents  Advanced settings  Advanced settings  Analog  Remote Agents  Remote Age	Agent Name:     IP Address:     Port:     Use all services     Use only specif     Service N     Load services	fied services Name
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**.



Configuration		Redu	ndan	cy			
Radio Networks	^	Red	unda	nt agents:			
Services				Name	IP Address	Port	
Repeater #1		1	$\checkmark$	Backup Agent 1	10.10.110.192	4021	
Control Station #1		2	$\checkmark$	Backup Agent 2	10.10.110.101	4022	÷
TRBOnet Swift Agent#1							
Selex #1							
Advanced settings							
Analog Control Stations							
Control Station A1							
Serial Port							
Remote Agents							
Agent: 1							
Redundancy							
Friendly Servers							
Telephony			Add	Edit	Delete	Test	
↓ Data Sources	¥						
Set Defaults					Apply	ОК	Cancel

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

Agent Name:	Backup Agent 2	
IP Address:	10.10.110.101	
Port:	4022	 Test
Ouse all service	es	
Use only spe	cified services	
	e Name	

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

Enter a name of 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	
Radio Networks	^		
		Registered Friendly Servers:	
Services		Name IP Address Port	
		Region Server # 1 10.10.101.167 4	Ю21
		Regio Server # 2 10.10.101.198 4	Ю22
🌃 Controller #1			
Selex #1			
X Advanced settings			
Analog			
Analog Control Stations			
Control Station A1			
📅 Serial Port			
🔂 Remote Agents			
Friendly Servers			
Telephony			
Data Sources			
🍀 Modbus TCP		Add Edit Delete Test	
🔀 Email	~		

• In the Friendly Servers pane, click Add.

Name:	Region Server # 1	
IP Address:	10.10.101.167	
Port:	4021 🗘 Test	

- 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 an external PBX server to the TRBOnet Server configuration.

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



Configuration	Telephony
Solt #1     Solt #1     Solt #2     Control Station #1     Control Station #1     Control er #1     Selex #1     Analog Control Stations     Remote Agents     Trelephony     Advanced settings     Internal PBX Server     Advanced settings     Modbus TCP     Modbus TCP     Selex	✓ Use Telephony         SIP Server         ✓         ✓         Internal PBX Server
SMS	Add Delete Test
Set Defaults	Apply OK Cancel

## 5.13.1 Advanced Settings

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

Configuration	Advanced settings		Version: 5.3.0.1670
Configuration Configuration Privacy Privacy Slot #1 Slot #1 Slot #2 Control Station #1 Control Station #1 Control Station: Remote Agents Friendly Servers Friendly Servers Control PBX Server Advanced settings External PBX Server Control PBX S	Advanced settings Max Ring Time: Max Call Time: Public Address: Phone owner address:	30 10 77.232.61.122 Take from database	seconds minutes
🐺 Redundancy 🗸			
< >			
Set Defaults		Apply	OK Cancel

• 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 pu	blic IP Address	over STUN server	
STUN Server:	stun.ekiga.net		-
Port:	3478	÷	
IP Address detected:	77.232.61.122		
Detect		OK Car	cel



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.

ddress format	×
Address format:	
, %HOUSE_NUMBER%, %STREET_NAME%	•
Availablefields: %HOUSE NUMBER% %FLAT NUMBER% %STREET NAME% %COMMUNITY NAME% %STATE NAME% %POSTCODE% %COUNTRY NAME% %EXTRA_INFO%	
ОК Са	ncel

• 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
Slot #1  Slot #2  Local Slots  Control Station #1  TRBOnet Swift Agent#1	✓ Use Internal PBX Server           Local IP:         10.10.100.99         ▼ Ø   Port: 5060
Controller #1	Dispatch Center
Controller #1	SIP ID: 1234
Selex #1	SIP User: 1234
Remote Agents	
Friendly Servers	
Telephony Telephony	
Internal PBX Server	
Advanced settings	
↓ Data Sources	
CP Modbus TCP	
🔀 Email	
SMS	
📮 License 🔹 🗸	
Set Defaults	Apply OK Cancel

- In the Internal PBX Server pane, specify the following parameters:
  - Local IP

Enter the IP address of the PC with TRBOnet Server.

Port

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

#### **Dispatch Center**

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**.

Configuration	Advanced settings	
Configuration  Services  Services  Control Station #1  Control Station #1  Control Station:  Remote Agents  Friendly Servers  Telephony  Advanced settings  Internal PBX Server  Advanced settings  External PBX Server  Data Sources  Modbus TCP  Semal  SMS	Advanced settings Packet time (ms): Codecs: Registration Interval (sec): DTMF Send Mode: First VoIP port: Use VoIP ports:	60
Set Defaults		Apply OK Cancel

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

Enter the packet length, in milliseconds.

Codecs

In the drop-down list, select/unselect the codecs to be used.

#### • 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 an external PBX server 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	External PBX Server
Advanced settings	✓ Use External PBX Server         Provider options         Address:       yourprovider.com       UDP ▼         Port:       5060 ♀       Test         Local IP:       10.10.100.99 ▼ ♀       Port:       5061 ♀
Controller #1 Controller #1 Controller #1 Controller #1 Controller #1 Control Stations Con	Dispatch Center SIP ID: 57068 SIP User: User 123 Password: ******
Advanced settings  Advanced settings  K Advanced settings  External PBX Server  Advanced settings  Data Sources	Test Call
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.

#### **Dispatcher 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 **External PBX Server**, select **Advanced Settings**.

Configuration		Advanced settings	Version: 5.3.0.1698
Privacy	^		
Slot #1		Packet time (ms):	60 🗘
<b>III</b> Slot #2		Codecs:	G711µ,G711a,OPUS,OPUS-WB,G729,SPE 🔻
Local Slots		Registration Interval (sec):	3600
			•
TRBOnet Swift Agent #1	-	DTMF Send Mode:	RFC 2833 •
Analog Control Stations		Do not register users on a P	BX server (SIP trunk)
Remote Agents		Do not register internal u	isers on a PBX server
Friendly Servers		Configure user's authorizat	ion
Telephony			
Thernal PBX Server		First VoIP port:	Default 🗘
Advanced settings		Use VoIP ports:	All
External PBX Server		Available SIP numbers:	5555-6666
Advanced settings			
Redundancy			
P Data Sources			
Email			
Incoming Mail Server	~		
< >			
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 359).

#### 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.



r		User Name	
	010101	User # 1	
		Internet in the second s	

- 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 available on the PBX server.

### 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 External PBX Server, select Redundancy.

Configuration	Redundancy	Version: 5.3.0.1670
	Redundant PBX Servers:	
Slot #2	PBX Server Address PBX Server Port	TRBOnet Local Port
Local Slots	1 123.321.102.201 5060	5061
Control Station #1		
TRBOnet Swift A10		
Repeater #1		
Analog Control Station:		
Remote Agents		
Friendly Servers		
Telephony Telephony		
Advanced settings		
Thernal PBX Server		
Advanced settings		
External PBX Server		
Advanced settings		
in the Redundancy	Reregister users when changing PBX server	
$\Psi$ Data Sources	Add Delete	Test 🔺 🔻
< >		
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

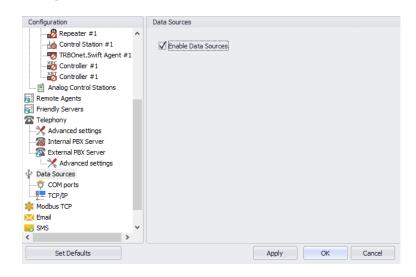
The Data Sources feature allows receiving data from third-party applications and devices.

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.



Image: Controller #1         Image: Control Stations         Image: Control Sta										
Image: Control Station #1       Name       Baud       Parity       Data       Handsh       Stop Bits       Text E         Image: Controller #1       Image: Controler       Image: Controler #1       Im	Configuration		COM p	orts						
Image: Controller #1         Image: Control Stations         Image: Control Sta		^								
Image: Controller #1       Image: Controller #1         Image: Controller #1       Image: Controller #1         Image: Analog Control Stations       Image: Controller #1         Image: Remote Agents       Image: Control Stations         Image: Friendly Servers       Image: Control Stations         Image: Friendly Servers       Image: Control Stations         Image: Control Stations       Image: Control Stations         Image: Control Staticons       Image: Control Stations <tr< td=""><td></td><td></td><td></td><td>Name</td><td>Baud</td><td>Parity</td><td>Data</td><td>Handsh</td><td>Stop Bits</td><td>Text E</td></tr<>				Name	Baud	Parity	Data	Handsh	Stop Bits	Text E
Controller #1 Analog Control Stations Remote Agents Friendly Servers Telephony Advanced settings Internal PBX Server External PBX Server COMports COMports COMports SMS Add Delete Edit			$\checkmark$	COM1	9600	None	8	None	1	ASCII
Analog Control Stations Remote Agents Friendly Servers Friendly Servers Telephony Advanced settings Data Sources COM ports TCP/IP Modbus TCP Email SMS Add Delete Edit Edit	🌃 Controller #1		$\checkmark$	COM2	9600	None	8	None	1	ASCII
Remote Agents Friendly Servers Telephony Advanced settings Data Sources COM ports Modbus TCP Email SMS Add Delete Edit Edit	Controller #1									
Friendly Servers Telephony Advanced settings Telephony Advanced settings Total PBX Server Advanced settings Data Sources COM ports TCP/IP Modbus TCP Kodbus TCP SMS Add Delete Edit	Analog Control Stations									
Telephony Advanced settings Internal PBX Server External PBX Server COM ports COM ports Modbus TCP Email SMS Advanced settings Add Delete Edit Edit										
Advanced settings Thernal PBX Server External PBX Server Advanced settings Data Sources COM ports TCP/IP Modbus TCP Email SMS Add Delete Edit	Friendly Servers									
Advanced settings     Data Sources     COM ports     TcP/IP     Modbus TCP     Email     SMS     Add     Delete     Edit										
Advanced settings										
V Data Sources     COM ports     Modbus TCP     K Modbus TCP     SMS     Add Delete     Edit     C										
COM ports COM ports COM ports Comparison Add Delete Edit										
Modbus TCP Modbus TCP Email SMS Add Delete Edit	0									
Modbus TCP Email SMS Add Delete Edit										
Email     SMS     Add     Delete     Edit										
SMS Add Delete Edit	🗱 Modbus TCP									
		×		Add		Delete			E	dit
	>									
Set Defaults Apply OK Cano	Set Defaults						Apply		ОК	Cancel

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

OM 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)
	OK Cancel

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

#### Serial port name

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

Baud rate

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

Parity-checking protocol

From the drop-down list, select one of the values that represent the 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

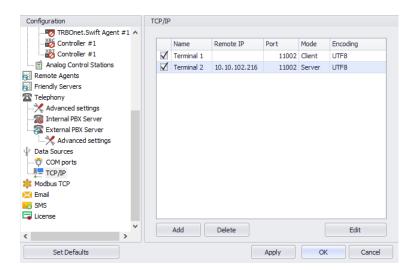
From the drop-down list, select the type of delimiters in the data.

- 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.



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

Name:	Terminal 2
Mode:	Server (TRBOnet connects to App)
Remote IP:	10.10.102.216
Port:	11002
Protocol:	Text
Text Encoding:	UTF8
Ignore the fol	llowing data
During:	30 🌲 min
Do not consider	the following substring:
	\d{2}:\d{2}:\d{2}



• 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.

: Email Server

### 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: 5.3.0.1711
Analog Control Stations	^	Enable	
Friendly Servers		Server:	imap.gmail.com
Telephony Telephony			This server requires a secure connection (SSL)
🛛 💥 Advanced settings			
		Port:	993 ≑
Advanced settings		Protocol:	IMAP -
External PBX Server			A1 17 W
		Check for new messa	ges
🗰 🛱 Redundancy		every:	15 🚖 seconds
Data Sources		Connect using	
COM ports		_	
TCP/IP		O Anonymous a	
🔀 Email		<ul> <li>Windows aut</li> </ul>	hentication
Incoming Mail Server		Use login and	d password
Outgoing Mail Server		Login:	tested383
SMS			
🗔 License		Password:	*******
	Υ.		Check New Emails Now
<	>		CHECK NEW LINAIS NOW
Set Defaults			Apply OK Cancel



- In the **Incoming Mail Server** pane, specify the following incoming mail-related parameters:
  - Enable
    - Select this option to enable Incoming Mail Server.
  - Server

Enter the server hostname or IP address.

This server requires a secure connection (SSL)

Select this option to enable a secure connection. Note that a dedicated port will be used to connect to the mail server via SSL.

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

#### Port

The port number to be used for the connection.

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

#### Protocol

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

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

### Check for new messages every X seconds

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

#### Connect using

Choose one of the following options:

### Anonymous access

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

#### • Windows authentication

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

## Use login and password

Choose this option and specify the credentials for the mailbox:

✓ Login

Enter the incoming mail server login.

### ✓ Password

Enter the incoming mail server password.



### Check New Emails Now

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

## 5.15.2 Outgoing Mail Server

The SMTP Server is used to send emails from users to mail servers as well as between mail servers to deliver emails to the final destination.

For example, the Administrator can enable email notifications from TRBOnet Dispatch Console to particular email users when alarms occur on selected radios. In this case, the radio sends an alarm to TRBOnet Server which in turn converts this alarm to text and then forwards it as an email message to particular email addresses (for example, to <u>admin@yourcompany.com</u>).

• In the **Configuration** pane, under **Email**, select **Outgoing Mail Server**.

Configuration		Outgoing Mail Server	Version: 5.3.0.1711
Analog Control Stations     Remote Agents     Friendly Servers     Telephony     Advanced settings     Advanced settings     Advanced settings     Advanced settings     Advanced settings     Coll ports     TcP/IP     Email     Coll ports     Incoming Mail Server     SMS     License	×	Enable     Sender Email:     SMTP Server:     SmTP Server:     SmTP Server Port:     465     Connect using         Anonymous access         Windows authenticatio         ① Use SMTP user name e     User name:         tested3     Password:         Type:     Auto	nail.com (SSL)  (SSL)  (SSL)
Set Defaults			Apply OK Cancel

- In the Outgoing Mail Server pane, specify the following outgoing mailrelated parameters:
  - Enable

Select this option to enable Outgoing Mail Server.

Sender Email

Enter the email address (optional) of the sender.

SMTP server

Enter the server hostname or IP address of the SMTP server.

Encryption

From the drop-down list, select the encryption protocol (**SSL**, **TLS**) if a secure connection is required, or select **None** if not. Note that three different dedicated ports will be used to connect to the mail server: via SSL, TLS, or with no encryption.

Note: The port number will automatically change when you select the encryption protocol. For example, from **25** (no encryption) to **465** for SSL, and to **587** for TLS.



### SMTP server port

The port number to be used for the connection.

Note: This box is populated automatically depending on the selected encryption protocol.

#### Connect using

Choose one of the following options:

• Anonymous access

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

• Windows authentication

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

• Use SMTP user name and password

Choose this option and specify the credentials for the mailbox:

- ✓ User name Enter the SMTP server user name.
- ✓ Password

Enter the SMTP server password.

✓ 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		
Configuration Controller #1 Analog Control Stations Remote Agents Friendly Servers Control Stations Friendly Servers Composition	^	SMS Sender: Connection to GSM via: Login: Password:	Vianett service (www.vian login@yourcompany.com exerces Send Test MMS	ett.com) V Send Test SMS
SMS				
<	>			
Set Defaults			Apply	OK Cancel



• 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	×
Connect to:		
Address:	127.0.0.1	$\sim$
Port:	4021 Configure	:
Authentication:		
Method:	TRBOnet Authentication	$\sim$
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, Network Parameters</u> (page 17).

### Authentication:

Method

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

• TRBOnet Authentication

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

• Windows Authentication Select this method to log on using the PC name. The system automatically shows the PC name as a User Name.

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



### User Name

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						😫 🐠
💼 🗄 🗄 👶 🔗 🍸 🙆	Radio Interface	Recent Calls/Events					
				Active Calls		×	Clock X
😑 📊 Firemen 🗧						We	ednesday, April 25, 2018
💮 🕅 🗐 🕄						· · · ·	11:17 ам
🐔 125 (Pete) 📮 📢							
£ 222						^ ^ _ (	Quick Commands
★ 235 (		•)) 🛋 🥥	Telephony		🗄 🙆 🛛 🖌 🖌 🖉 Repeater #1: Slot #	1 🛛 🕄 🖉 🔪	nfigure
🖈 Radio 200 📮 📢		All Call 🔹			Fireme	n 🔹	
🖈 Radio 200 🤤 📢					PTT	Q	ueued Messages X
Radio 201				Menu			Record 🔻 👥 File 🔻
		Session:	Line 1	Line 2 Line 3	Session:	To: ;	Selected C 6
Voice Dispatch		Free channel	Line 4	Line 5 Line 6	A Free cha	nel	Patch X
Location Tracking		Sender:	1	2 3	Sender:	Dra	ag and Drop PTT Box here to create new group
Nob Ticketing			4	5 6			
a soo nexcuiry			7	8 9			Radio Bridge
Route Management	RX / TX -		*	0 #	RX / TX		Unknown
-							Any Groups
RFID Trac	Recent Calls/Events						
	🛱 Playback 🛃 Sa	ve 🕶 进 Print 🔢 Pause 🭕	🕴 Clear 👻 🌀 Reload	懫 Filter By Radio 🛛 🚍	Grouping 🍸 Auto Filter 🧇 Default	Settings 🔄 🚰 Details 🗮 Show Not	tes 🧱 Add Note 🛛 🦉
Text Messages	Date	Radio System	Sender	Recipient	Message	Details	Note
Voice Recording	2 14-Nov-2016 12:2		125	All	All Call from '125' (00:02)	Members: 125	▲
Voice Recording	2 14-Nov-2016 12:2		235	All	All Call from '235' (00:02)	Members: 235	
Reports	11-Nov-2016 17:5 3 11-Nov-2016 17:5		235	Al 5	Reset Geofencing Alarm		
	2016 17:5		235		kadio left allowed region 'Route 1' Geofencing Alarm [GPS Date: 11-Nov-20.		
Event Viewer	2 11-Nov-2016 17:5		235	Al	Radio left allowed region 'Route 1'		
	144 4 4 Record 1 c	f 605 + H+ HH 4			· · ·		•
😥 Radio Allocation		Recent Calls Request to Ta	k Radio State Active	Tasks Active Routes	User Activity Map Cameras		
🐻 127.0.0.1 🛞 🔂 🔂 Die	patcher 1 ELicensed 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 94).

• 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 > 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 💌				
					-			
					Ŧ			
	Create	Edit X Delete	[	OK Cancel				

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



### Туре

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

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



/irtual Channel	×
☑ Name: Group	Call
Call Type:	Call Target:
All Call	Select by Dispatcher
Group Call	<ul> <li>Selected from list</li> </ul>
Private Call	<b></b>
Execute call on chan	nels:
Execute call on all ava	
<ul> <li>Execute call only on s</li> </ul>	elected channels
Control Station #	
☐ Intercom	-
Local Brine's	
Repeater #1: Slo	
Repeater #1: Slo	t #2
	OK Cancel

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

Name

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

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



Active Calls	×
Call Types Advanced	1
Show All Call	
Show Group Calls	
Show Emergency Calls	
Show Private Calls	
Show Remote Monitor	
Show Intercom All Calls	
Show Intercom Private Calls	
	OK Cancel

### Call Types

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

### Advanced

On this tab, you can set following options:

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

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

Show Requests To Talk
 Sale at this particular Degree at Ta Talk in the Active Calle name

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.

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

oice Dispatch	Radio Interface						
i 🗄 h 👶 🛠 🏹 😒	Radio Interface Rece	nt Calls/Events					
	Control Station #		Active Cal	ls		X Quick	Commands
🧟 Online Dispatchers (1)	Police					Configure	
Administrator	PTT Administrator					Queue	d Messages
📑 Firemen 📮							d 🔻 😰 File
Police 📮							
	Intercom	•))	∎⊘) (⊡	Control Stati	on #1 🛛 📧 🖉	To: selecte	o channels
		all			Channel 4		Patch
With Reserved	PTT			PTT	Police -	Drag and	Drop PTT Box here
Voice Dispatch						cre	ate new group
GPS Positioning	Sessio				ession:		
,	Free	hannel			Group Call		
Job Ticketing					olice		
-	Sende	r:			ender: Administrator		
Route Management					Administration		
RFID Tracker	RX/TX			RX / TX			
RFID Tracker							
Text Messages							
-	Recent Calls/Events						
Voice Recording					🖥 Filter By Radio 🛛 🚟 Grou		
	Date 29-Sep-2016 17:03:17	Radio System Control Station	Sender Administrator	Recipient Police	Message Dispatcher 'Administrator'	Details Members: Administrator	Note
Reports	29-Sep-2016 17:02:37	Control Station		Police	Dispatcher 'Administrator'		
Event Viewer	29-Sep-2016 17:02:23	Control Station	Administrator	Police	Dispatcher 'Administrator'	Members: Administrator	
Event viewer	29-Sep-2016 17:02:00	Control Station		Firemen	Dispatcher 'Administrator'		
Radio Allocation	29-Sep-2016 17:01:47	Control Station		Police	Dispatcher 'Administrator'		
	29-Sep-2016 17:01:25	Intercom	Administrator	All	Intercom Call: Dispatcher '	. Mempers: Administrator	
Administration	Record 101 312	· // // 1					

### • 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	
[L]	PTT	Intercom	
[Shift]+[H]	PTT	Repeater #1: Slot #1	
[Shift]+[O]	PTT	Repeater #1: Slot #2	
	PTT	Local Brine's	
	PTT	Control Station #1	
	PTT	Group 2	-
144 44 4 Record 5	of 10 + ++ ++ +		•

- 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:



HotKey:	Ctrl		Configure
Caption:	Mute Mode		
Action:	Mute channels	•	
Channels:			
	#1: Slot #1 #1: Slot #2 e's		
Control S	tation #1		
Group 2			

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

• 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.

• Caption

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

• 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	
	Terminate all Transmit	Quick Commands
😑 🤼 Online Dispatchers (1)	Active Calls	Configure
Administrator		Queued Messages X
🐵 📑 Firemen 📮		
Police 📮		Record     File     File     To: Selected Channels
	Intercom 🔃 🔣 🖉 Control Station #1 👘 🕷 🖉	Patch X
Voice Dispatch	All Call Channel 4	Drag and Drop PTT Box here to
	PTT All Call	create new group
GPS Positioning		
	Session: Session:	
🚟 Job Ticketing	Free channel Free channel	
~		
🤔 Route Management	Sender: Sender:	
RFID Tracker		
RFID Tracker	RX/TX	
Text Messages		
	Recent Calls/Events	
🔮 Voice Recording	🛱 Playback 🚽 Save - 😓 Print   II Pause 🥩 Clear - 🧐 Reload   🏋 Filter By Radio   🚍 Grouping 🍸	Auto Filter @ Default Settings *
-		
🕞 Reports	Date         Radio System         Sender         Recipient         Message         Details           29-Sep-2016 18:15:42         Intercom         Administrator         All         Intercom Call: Dispatcher ' Members:	Administrator
	29-Sep-2016 17:53:22 RadioServer All Connection to Control Sta	
Event Viewer	29-Sep-2016 17:27:01 Intercom Administrator All Intercom Call: Dispatcher ' Members:	: Administrator
8	29-Sep-2016 17:27:00 Control Station Administrator Police Dispatcher 'Administrator' Members:	
	29-Sep-2016 17:26:48         Intercom         Administrator         All         Intercom Call: Dispatcher '         Members:           H         K         K         Record 1 of 319         H         H         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K         K	Administrator
Administration	Recent Cals/Events Recent Calls Radio State Active Tasks Active Routes User Activity Map Cameras	<u>·</u>
访 127.0.0.1 🛞 🕵 🕵 😼 Administr	stor 🛛 🛄 Licensed to: demo Demo License	Active

### • View > Add Radio Interface Tab

Choose this menu item to add a new Radio Interface tab to the Radio Interface pane.

Name:	Radio Interface #1			
Туре	Name	View Mode	Available Calls	
Channel	Intercom	Normal		
Channel	Control Station #1	Normal	All	_
Group	Group 1	Normal	Firemen	
Group	Group 2	Normal	Police	
Channel	Repeater #1: Slot #1	Normal	All	
Channel	Repeater #1: Slot #2	Normal	All	
Channel	Local Brine's	Normal	All	
All Call	All Call	Normal		

- In the Configure Voice Boxes dialog box, specify the following PTT box parameters for the new radio interface:
  - Name

Enter a name for the radio interface.

Other parameters can be configured in the same way as when <u>Configuring</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							4	€ 4
🚮 🗄 🗄 👶 🔗 🍸 🚳		Radio Interface Radio	Interface #1	Recent Calls/Ev	ents Radios	1				
Online Dispatchers (1)		Terminate all Transmit	~	Active C	alls	-	×	Quick Configure	ommands e	2
😤 Administrator								Queued	Messag	. [
🛛 📊 Firemen	<b>P</b>								: 🕶 😰 File	
Police							~		ted Channels	
					Control St	ation #1 💿 🖷 Channel 4 All Call		P Drag and D	<b>atch</b> Drop PTT Box H Inte new group	hen
Voice Dispatch						All Call		$\square$		_
GP5 Positioning		Sessio Free o	n: thannel			Session: Free channel				
🚰 Job Ticketing		Sende	r:			Sender:				
Route Management										
RFID Tracker		RX / TX			RX/TX -					
🗹 Text Messages		Recent Calls/Events					~			
Voice Recording		🖽 Playback 🛃 Save - 🖢	👌 Print 📔 Pa	use 🛷 Clear	• 🏐 Reload	ᅚ Filter By Radio 🛛 🚟	Grouping 🍸 A	Auto Filter		
2		Date	Radio System	Sender	Recipient	Message	Details		Note	
Reports		30-Sep-2016 10:48:54	Intercom	Administrator	All	Intercom Call: Dispatche.				
_		29-Sep-2016 18:15:42 29-Sep-2016 17:53:22	Intercom	Administrator RadioServer	Al	Intercom Call: Dispatche. Connection to 'Control S		ninistrator		
Event Viewer		29-Sep-2016 17:53:22	Intercom	Administrator	Al	Intercom Call: Dispatche.		inistrator		
		29-Sep-2016 17:27:00	Control Statio		Police	Dispatcher 'Administrato				
Radio Allocation		29-Sep-2016 17:26:48	Intercom	Administrator	Al	Intercom Call: Dispatche.				
Administration		HI HI 4 Record 1 of 303	► ₩ 4							Þ
						outes User Activity Ma				

### • 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

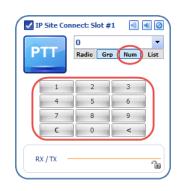
Select this menu item to display the Call Type Buttons panel in PTT boxes.





# • 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:

/		Con	trol Statio	n #1	
		Control Sta	ation #1		- A A A A A A A A A A A A A A A A A A A
Р	TT	Channel 1		-	
Tone	& PTT	RX/TX	Free channel		Terminate
	Call	All Call		•	Check
Ð	<b>(+)</b>	1	2	3	Call Alert
		4	5	6	Monitor
Ĩ	Ĩ	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 > Show Active Calls Panel Select this menu item to display the Active Calls panel in the Dispatch Console. See also Configuring Active Calls panel.
- View > Show Clock Panel Select this menu item to display the Clock panel in the Dispatch Console.
- View > Show Quick Commands Panel Select this menu item to display the Quick Commands panel in the Dispatch Console. For more details, see section <u>6.5.6</u>, <u>Quick Commands</u>.

# View > Show Queued Messages Panel Select this menu item to display the Queued Messages panel in the Dispatch Console. For more details, see section <u>6.5.7, Queued Messages</u>.



- View > Show Patch Panel Select this menu item to display the Patch panel in the Dispatch Console.
- View > Telephony Tab Select this menu item to display the Telephony tab in the Radio Interface pane.
- View > Show Extended Messages Tab
   Select this menu item to display the Extended Messages tab in the Radio
   Interface pane.
- View > Show Radios Tab

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

The Extended Messages and Radios tabs appear on the top of the Calls pane:

Radio Interface		🖢 🔿
Radio Interface Recent Calls/Ev	ents Extended Messages Radios	
Terminate all Transmit	Active Calls	Quick Commands X Configure Queued Messages X
Intercom	I Control Station #1	
PTT All Call		Image: Selected Channels
Session: Free channel	Session: Free channel	Drag and Drop PTT Box here to create new group
RX / TX	RX /TX	

# 6.3.3 Map

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

File View Mar	Tools Help								
Location	Select Active Map.						👲 🕪 🕒	Objects	
d: II II	Save Online Map D	ata						11 h	
· · · · · · · · · · · · · · · · · · ·	Map Content	ee	• 0	Intercom	• • 0	Group 10		interior and	
0 - Em 🗎	Print	2	•) 🛋 🥥	Group 20	•) 🛋 🖉	Group 11	• • •	😔 📝 🦢 Beacons	
P - Fire	Geocoding	-	0 4 0	Private C	J 🕖 🕷 🖉			🗹 🍛 Beer	
<b>1</b>	Open New Map in	Tab						🗹 🎯 Coffee	
گ 🖈	Open New Map in		loor plan X		1		Prowing Papel	🗹 🎯 Tea	
😑 📙 Polic 🕿	Google Earth		- Filter: 🛞 🛞 🤇		Show Beacons: All	- 6	Prawing Panel	- V A Camera 1	
	Delete Route on Go	nale Faith	🏔 🏠 🏦 🏠	🏠 🗟 😒 Cu	stom Object +				
📥 Voice ベ	Show Radios on Go	ogle carth	Na						
		ogie cartri 🔹	P					🕂 🗹 📴 Map Regions	
Location Tr	acking 🔶		0					- Z Region 1	
0-0		-1						🖮 🖉 🦢 Map Routes	
🔡 Job Ticketi	ng					*			
💓 Route Man	agement			-		23			
RFID Track	er			Hospital			25		
🖂 Text Messa	iges	, 30 m	`		Latitu	ude: 59*56'27,63'' N;	Longitude: 30°16'49,88" E		
Voice Reco		Recent Calls/Eve	ents						
Voice Reco	raing	🕮 Playback 📓	Save + 进 Print 🛛	II Pause 季 Cle	ear 🛛 🌀 Reload 🛛 🍸	Filter By Radio 🛛	🖥 Grouping 🍸 Auto Fil	ter 🐵 Default Settings	»
🕞 Reports		Date	Radio Syst					Details	
		209.06.2017 14		Server			ion to 'Capacity Plus 1' h		-
Event View	er	09.06.2017 12						Members: Administrator, 125	
		09.06.2017 12			11 strator 11		25' calls group '11' (00:08) er 'Administrator' calls gr	Members: 125	
Radio Alloc	ation	09.06.2017 12					er 'Administrator' calls gr		-
		141 41 4 Recon				Disputor			F
administra 🚲	tion	Recent Calls/Even	ts Recent Calls R	equest To Talk	Radio State Active Ta	sks Active Routes	User Activity Beacons	Beacon Events Tag List	:
127001	🐟 🦉 Administr	ator Elicensed	to: demo						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.



vailable Maps			
Name	Path		State
MAPNIK			OK
CYCLE			OK
TRANSPORT			OK
LANDSCAPE			OK
BING_ROAD			OK
BING_AREA			OK
BING_HYBRID			OK

- Enter the **Caption** of the map that will be displayed in the Dispatch Console.
- In the list of **Available Maps**, choose the map to be displayed.
- You can also add a custom map using the URL. Click the **Add** button.

Add Map			;
Name:	region		
Map Type:	Custom Map		-
URL :	https://www.openstreetmap.org/#map=11/59.9497/30.0517		
	Example: http://tile.openstreetmap.org/{z}//{x}/{y}.png		
		Ж	Cancel

- Enter the **Name** for the new map.
- Enter the **URL**, as shown in the example.
  - ✓ Z

Enter the zoom value for the map.

✓ X

Enter the latitude coordinate (X-direction).

✓ Y

Enter the longitude coordinate (Y-direction).

# • Map > Save Online Map Data

Click this menu item to save your current map region.

Tiles bulk downloader		-	D X
Region from: N59°57'07.92"	E030°14'33.51'	' to N59°56'48.68" E	030°19'02.27"
Expire tiles days: 30	-		
Redownload all tiles			
Zoom	level: 14 Tiles to d	lownload: 40	
Status: Finished Loading soom level: 14 Loaded from the web: 0 Updated from the web: 39 Local: 1 Failed: 0			
Show tiles preview 🖉 Show tile	s progress		
	Loaded: 40 of 40 (	(100 %)	
		Start	Close



In the dialog box, specify the following parameters:

Expire tiles days

Enter the time the saved offline map will be stored before it is automatically updated.

Redownload all tiles

Select this option to re-download the map tiles before saving to your PC.

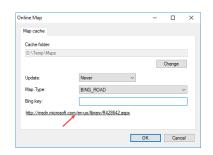
- Zoom level
  - Move the slider from left to right to increase the detail level of the map.
- Show tiles preview
   Select this option to show how the map is divided into tiles.

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.



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, Map Types</u> (page 110).

# <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.

## **Offline Maps:**

- TRBOmap internal map-making resource. A user can customize a part of online maps according to requirements.
- TMap internal map-making resource. A user can create an offline copy of online maps for selected regions according to requirements. A user can create a map from any picture via the TRBOnet Map Edit application.

Click **Start > All Programs > Neocom Software > TRBOnet Map Edit** For more details on map calibration, read the following article at: <u>http://kb.trbonet.com/public.pl?Action=PublicFAQZoom;CategoryID=2;Item</u> ID=111.

- Beacon 2D two-dimension offline map for Indoor positioning. A user can create maps using the Beacon2DMapGenerator tool. To get Beacon2DMapGenerator, contact your local TRBOnet dealer.
- Beacon 3D three-dimension map for Indoor positioning. A 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.

Geo	coding	Х
21	Load data from TRBOnet Server if Geocoding services are inaccessible from local PC	
	Server Name	
7	Google	
$\overline{\mathbf{v}}$	Nominatim	
	Add Delete	V
	Default OK Cance	



# 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.

lap Type:	Online maps	
aption:	Му Мар	
vailable Maps		
Name	Path	State
MAPNIK		OK
CYCLE		OK
TRANSPORT		OK
LANDSCAPE		OK
BING_ROAD		OK
BING_AREA		OK
BING_HYBRID		ОК

# Map Type

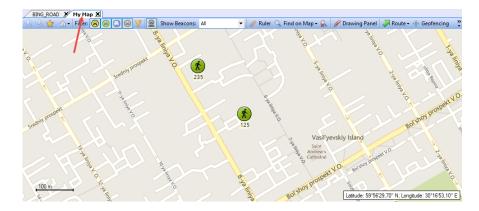
From the drop-down list, select the map type.

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:



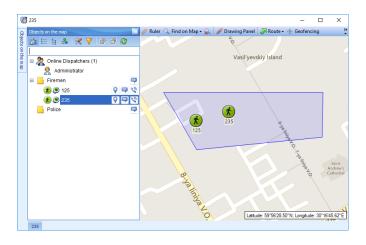
# • Map > Open New Map in Window

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.

er events	Talk Sessions				
All Messages	🗐 Playback 🛃 Save •	🛚 Pause 季 Clear 🍪	Reload 📑 Grouping	🍸 Auto Filter	
Text Messages	Date 🗸	Radio System	Sender	Recipient	
	(i) 05-Oct-2016 15:38:45	Control Station #1	Dispatcher	Al	
	(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	All	
f Sent commands	04-Oct-2016 17:38:32	Repeater #1: Slot #1	235	All	
Talk Sessions	(i) 04-Oct-2016 17:32:42	Repeater #1: Slot #2	Administrator	Al	
Registration in a radio network System Messages	(i) 04-Oct-2016 17:31:55	Repeater #1: Slot #2	Administrator	Al	
💫 System Messages	(i) 04-Oct-2016 17:30:50	Repeater #1: Slot #1	125	Al	
oser messages	(1) 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	
	(i) 04-Oct-2016 17:28:48	Repeater #1: Slot #1	125	All	
	(i) 04-Oct-2016 17:28:45	Repeater #1: Slot #1	235	All	
	(i) 04-Oct-2016 17:18:05	Repeater #1: Slot #1	235	Al	
	() 04-Oct-2016 17:16:01	Repeater #1: Slot #1	Administrator	Al	
	(i) 04-Oct-2016 17:15:58	Repeater #1: Slot #2	Administrator	Al	
	(i) 04-Oct-2016 16:56:17	Repeater #1: Slot #2	Administrator	Al	
	(i) 03-Oct-2016 10:51:39	Control Station #1	235	Al	
	H4 44 4 Record 12 of 290	<b>ь</b> н н н		-	
	Sender:	235 Al	-	Nate: 04-Oct-2016 17:28:4!	

• Tools > Recent Calls/Events in Window

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



	Radio System	Sender	Recipient	Message	Details	Note	
05-Oct-2016 15:42:32		RadioServer	All	Connection to 'Control St			
05-Oct-2016 15:38:45	Control Stati	Dispatcher	All	All Call from dispatcher 'Di			4
05-Oct-2016 15:38:43	Control Stati	Dispatcher	All	All Call from dispatcher 'Di			
05-Oct-2016 15:38:41	Control Stati	Dispatcher	All	All Call from dispatcher 'Di			
05-Oct-2016 09:49:04		RadioServer	All	Connection to 'Repeater			
04-Oct-2016 17:45:36		Administrator	125	Dispatcher 'Administrator'			
04-Oct-2016 17:43:26		Administrator	125	Dispatcher 'Administrator'			
04-Oct-2016 17:38:38	Repeater #1	125	All	All Call from '125' (00:01)	Members: 125		
04-Oct-2016 17:38:32	Repeater #1	235	All	All Call from '235' (00:00)	Members: 235		
04-Oct-2016 17:32:42	Repeater #1	Administrator	All	All Call from dispatcher 'A	Members: Administrator		
04-Oct-2016 17:31:55	Repeater #1	Administrator	All	All Call from dispatcher 'A	Members: Administrator		
04-Oct-2016 17:30:50	Repeater #1	125	All	All Call from '125' (00:00)	Members: 125		
04-Oct-2016 17:30:45	Repeater #1	235	All	All Call from '235' (00:01)	Members: 235		
04-Oct-2016 17:30:40	Repeater #1	Administrator	All	All Call from dispatcher 'A	Members: Administrator		
04-Oct-2016 17:28:48	Repeater #1	125	All	All Call from '125' (00:01)	Members: 125		
04-Oct-2016 17:28:45	Repeater #1	235	All	All Call from '235' (00:01)	Members: 235		
04-Oct-2016 17:28:40		Administrator	125	Dispatcher 'Administrator'			
04-Oct-2016 17:18:05	Repeater #1	235	All	All Call from '235' (00:02)	Members: 235		
44 4 Record 8 of 321	<b>F IH II</b> 1					)	ŀ

- 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.

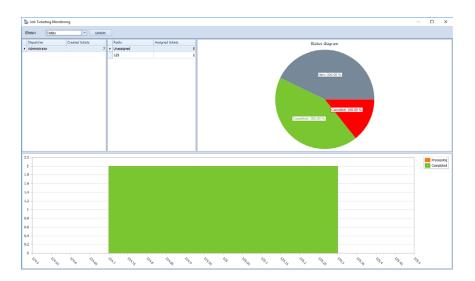
Note		×
Well done		*
		Ŧ
Add Extension	OK	Cancel

- Enter the text of the note in the text box.
- You can extend the form of a note by clicking the **Add Extension** link and adding new fields and their possible values to the form.

# • Tools > Job Ticketing Monitoring

Click this menu item to open the window that visually represents the job tickets created by dispatchers and assigned to radios.





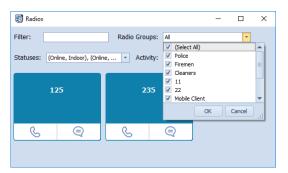
In this window, you can perform the following actions:

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

All data are shown in the form of status diagrams.

#### • Tools > Radios in Window

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



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

# • Tools > Telephony in Window

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

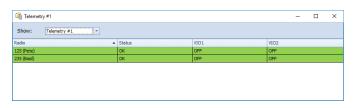


Telephony				-	
1 Finish	Walt	Î	•	-	• •
Hold Forward	00:15		1	2	3
2			4	5	6
	Line free		7	8	9
Call			С	0	<
3		1	L.	Call	
Call	Line free			Walt	
				235	
4	Line free			125	
📞 Call					

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.

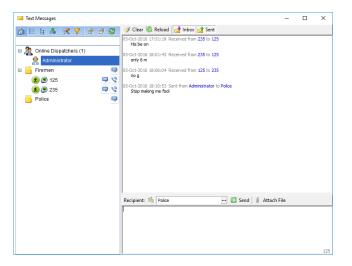


• From the **Show** drop-down list, select the Telemetry profile to display.

See also section <u>6.4.10, Telemetry</u> (page 202).

# • Tools > Text Messages in Window

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



In this window, you can perform the following tasks:

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



- Type messages in the text box in the lower-right pane.
- Send messages by clicking the **Send** button in the lower-right pane.

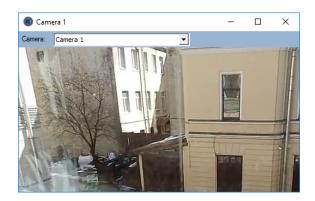
# • Tools > Routes in Window

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

For more details on Route Management configuration, see section <u>6.8, Guard</u> <u>Tour / Route Management</u> (page 304).

# • 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 6.4.8, IP Cameras (page 198).

# • Tools > Reset All GPS Triggers

Choose this menu item to stop/start GPS triggers on all 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	🗏 Configure 🌖 Imp	ort -	
Marker	SIP ID	SIP User	Display Name	
Yellow	2409	2409	Walt	
e Yellow	2235	2235	235	
- Yellow	2125	2125	125	
144 44 4 Record 1	of3 > > > + +			Þ
Call			OI	Cancel

- 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		×
SIP ID:	2125	-
SIP User:	2125	
Display Name:	John	
	OK Cancel	

# • 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	Map	Coverage Map	Hardware	Advanced	Audio	Alarm	Telephony
0,	Cor	nfigure the Sound	Notification				
7 Us	e Sound	Notifications					
To co	infigure	the individual sou	nds notificat	ions on every	system	event,	choose
even	t from t	he list and specify	a demanded	sound file of	r use a fi	le by def	ault
_	_						
	) Talk I						
	) Talk Line I						
		n or Emergency Ca					
		message received mation received					
- 2	<i>y</i>	nauon received					
		n received					
- 2	y	em error					
	Alarn						
		te call from a radi	Network to	dispatcher			
		est To Talk from P			er		
					-		
Soun	d:						
(Sou	nd by d	efault)			$\sim$ $\blacktriangleright$	Se	lect
	n or Eme	ergency Call durat	ion: 5	÷	second	ls	
Narn							

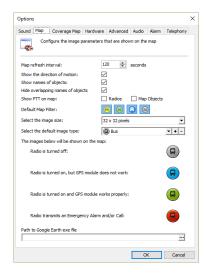
# Sound

- In the **Options** dialog box, click the **Sound** tab.
  - Use Sound Notifications
    - Select this option to enable sound notifications in the Dispatch Console.
  - Select the event in the list and specify the sound.
  - From the Sound drop-down list, select ether 'Sound by default' to play default sound, or 'Disabled' to disable sound notification for the event.
  - Click listen to the sound notification for the selected event.
  - Click Select and browse for the audio file on your PC.
  - Alarm of Emergency Call duration

Enter the time value, in seconds, for the duration of the alarm tone when an emergency call is received.

#### Мар

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





• Map refresh interval

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

- Show the directions of motion Select this option to display a direction of motion for map objects.
- Show names of objects Select this option to display object names on the map.
- **Hide overlapping names of objects** Select this option to hide overlapping object names.
- Show PTT on map

Select this option to allow the dispatcher to make private calls by clicking a corresponding radio icon on the map.

• Default Map Filter

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

- 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 a further extension of their radio networks.

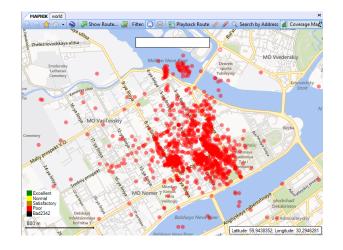
• In the **Options** dialog box, click the **Coverage Map** tab.

Options							$\times$
Sound M	ap Coverage	Map Hardware	Advanced	Audio	Alarm	Telephony	
Dra	w in Dots w Coverage Zon						
Val	ue (dB) 🗸	Description		Col	or		
•	-65	Excellent			0, 128	1, 0	
	-81	Normal			255, 1	65, 0	
	-97	Satisfactory			184, 1	34, 11	
	-113	Poor			139, 0	, 139	
	-00	Bad		-	255, 0	, 0	
A	idd D	elete			Def	ault	
L				0	K	Cancel	



# • Draw in Dots

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



# • Draw Coverage Zone

For a less detailed view, choose this option to configure and display on the map, RSSI zones of average RSSI levels using GPS coordinates.

# ✓ RSSI Zone Size

Enter the size of the RSSI zone within which RSSI levels will be averaged.



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

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

✓ Description

Enter a 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.

otion	15							
loun	d Map	Coverage Map	Hardware	Advanced	Audio	Alarm	Telephony	
X	<ul> <li>External</li> <li>Cont</li> </ul>	ernal hardware op trol PTT button (fo	tions. You ootswitch, l	can attach an nand micropho	additioni ne, etc)	al equipm	ient to	
2	Jse signali	ng device						
	Serial port	:	CON	1			~	1
			Cont	iqure				
Exte	rnal Devic	es:						
	Name		1	Description				1
≑	Footswite	h	0	COM3				
-	Micropho	ne 1	1	RBOnet Mic A	dapter			
055	Keyboard	1		Vired Keyboar	d 600			
25	Keyboard	1	N	Vired Keyboar	d 600			
	Add 🛋	Edit 🗙 Delete RBOnet Microph	1		d 600			
•	Add 3	Edit 🗙 Delete	none Adap		d 600			
- Contraction of the second se	Add Add V III V	Edit 🗙 Delete RBOnet Microph	ione Adap					
First First	Add 3 W T V m T I 🗘 T	Edit 🗙 Delete RBOnet Microph RBOnet Media D RBOnet Footswii	ione Adap		A.			
First First	Add S	Edit 🗙 Delete RBOnet Microph RBOnet Media D RBOnet Footswil ID	ione Adap		A.			
First First	Add J V mathematics V mathemat	Edit 🗙 Delete RBOnet Microph RBOnet Media D RBOnet Footswil ID	ione Adap		A.			
First First	Add V T IF T Js C V T	Edit X Delete 880net Microph RBOnet Media D RBOnet Footswil ID irectX	ione Adap		A.			

# Use signaling device

Select this option to use an external signaling device.

• Serial port

From the drop-down list, select the COM port the signaling device is connected to.

 Click **Configure** and specify the duration of a signal and which call types to include in signaling.

Signaling COM port	×
Duration	10 🔺 seconds
Private Call	
Call Alert	
Alarm	
	OK Cancel

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

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

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



# • First IP Camera port

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

# • Use proxy server

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

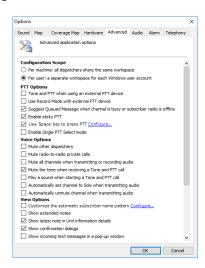
A proxy server can be used when a user's computer cannot be connected directly to the Internet, but there is another computer with Internet access in the network.

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

Configure th	e proxy server	×
🗸 Use an a	alternative server	
Settings		
Address:	177.71.134.70	
Port:	80	
Authentica	ition	
🗹 Use au	uthentication	
Login:	User	
Password		
	OK Cancel	

# **Advanced**

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



# **Configuration Scope**

Per machine

Choose this option to store settings in a common place for all dispatchers of the Dispatch Console.



# Per user

Choose this option to store settings for each dispatcher separately if they are using different Windows user accounts.

## **PTT Options**

Tone and PTT when using external PTT device

Select this option to enable Alert Tone for all subscribers on a channel when the dispatcher presses the PTT button on an 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	×
Radio display name:	
%NAME%	
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)	

#### • Radio display name

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

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

## • Allocated radio display name

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

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

Click the ellipsis (...) button and in the **Format** dialog box pick the fields to display for an allocated (taken) radio in case when a user has more than one radio.

• Click **Defaults** to set default settings for radio display.

# Show extended notes

Select this option to enable Extended Notes in the Dispatch Console.

The Extended Notes feature is intended to add predefined Extended Notes templates, the same as for Extended Messages, for the selected calls and events.



For example, a Taxi Dispatcher needs to check clients' 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 V	Radio System	Sender	Recipient	Message	Ext. Note	Note
9	7/7/2014 3:49:56 AM		Radio 11	All	Geofencing Alarm [Dat		
₽	7/7/2014 3:49:56 AM		Radio 11	All	Radio left allowed region		1
1	7/7/2014 3:47:52 AM	Repeater #1 Slot 1	Radio 105	Dispatcher	Administrator Accept		1
Þ	7/7/2014 3:41:24 AM	Repeater #1 Slot 1	RadioServer	Radio 105	Telemetry status cann		
3	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	
þ	7/7/2014 3:32:55 AM		Administrator	Radio 105	Dispatcher 'Administra		
ŀ	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		4
2	7/4/2014 4:01:35 AM	Intercom	Dispatcher 1	All	Intercom Call: Dispatc		
n	44 4 Record 54 of 83	Totocom	* J	AU			

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.

olce Dispatch		Radio	Interface									€ 4
i 🗄 h 👶 🛠 🍸 💣	00	Radio	Interface	Recent C	als/Events							
						Active	Calls		X	Quick C	ommands	X
Cleaners Firemen Cleaners Difference Cleaners Difference Diff		٩		125 GenetyFLU Text mes			18-Nov-20			Configure Queued Mecore To: Selectr Start Voice		
Job Ticketing			Do not	t show this	message nex	time		on map		Voice Mess	oice Message lage atch	
RFID Tracker		Recent (	<< Pre		nt >>		Request	lose		Drag and D creat	rop PTT Box her te new group	e to
Z Text Messages			ack 📓 Sa				-	🌇 Filter By Radio			-	ttings
Voice Recording			w-2016 13:5 w-2016 13:5	i3:53 Ca	adio System spacityPLUS spacityPLUS	Sender 125	Recipient All	Message okay Call Queued	Detai	5	Note	
Event Viewer		* 18-14	w-2016 13:5 w-2016 13:4 w-2016 13:4	19:08 Ca	ipacityPLUS ipacityPLUS ipacityPLUS	Server 125 125	125 Al Al	Subscriber '125' he ok	is sent			
Radio Allocation		3P 18-No	w-2016 13:4 w-2016 13:3 Record 1	9:37	pacityPLUS	125 235	Al Al	LG Reset Geofencing	Alarm			



# 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	alk		
2	<b>125</b> The Request to Talk h You must accept or rej		red.
	Accept	Reject	Queue

#### 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.

• On Map

Select this option to display coordinates on the map.

#### **Audio**

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

ptions			
Sound	Мар	Coverage Map Hardware Advanced Audio Alarm Telephony	1
De	fault au	udio devices: Configur	e
Re	ecorder:	Primary Sound Capture Driver	/
Pl	ayer:	Primary Sound Driver	/
Sel	ected o	channel: Defaults	
Re	ecorder:	Default 💌	
Pl	ayer:	Default 💌	
Sp	eaker:	Default 💌	
E	cternal P	भा:	
In	dicator:	<b></b>	
Un	selecte	d channel: Defaults	
R	corder:	Default	
Pl	ayer:	Default	
Sp	eaker:	Default	
E	cternal P	•TT:	
In	dicator:	·	
Sys	stem so	ounds: Defaults	
R	ecorder:	<b>_</b>	
Pl	ayer:	Default 🗸	
Sp	eaker:	Default 💌	
E)	cternal P	थाः	,
Res	et All au	udio devices to default Manage Custom Mode	2
		OK Cancel	

# **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 118).

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.

ound Map	Coverage Map	Hardware	Advanced	Audio	Alarm T	elephon
Cor	figure display opt	ions for radio	os in alarm mo	ode		
Alarm Panel:	Main W	/indow				•
Call Button:	None					•
🗹 Always s	how radio on map	,				
Display o	amera in new win	dow				
Display r	adio in new windo	m				
Map: MA						
Select m	ар					



## 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 /	Alarm	—		$\times$
Ceofe	ncing Alarm			×
РТТ	Request Location Copy Coordinates Find on GPS map Find on Beacon map			
<ul> <li>GPS: Region:</li> <li>Coffee</li> </ul>			ul 2018 : Reg ul 2018 :	gion 1
125 • Emerg	iency Call			×
РТТ	Request Location Copy Coordinates Find on GPS map			
	Find on Beacon map			
• Beer • GPS: Region:	Find on Beacon map		ul 2018 : ul 2018 : Reg	

# 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 6.6.2.4, <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.

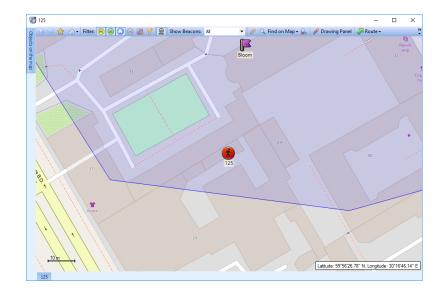
#### Display radio in new window

Select this option to display a radio in alarm mode on the selected map in a new, separate window.

• Map

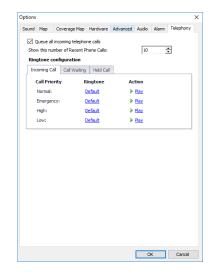
This field displays the map name. Click the **Select map** link and specify the map on which to display a radio in alarm mode.





# Telephony

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



# 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 Setting Language

• On the **Tools** menu, click **Set Language** 

Select Language			
Language:	English	•	
	ОК	Cancel	

• From the drop-down list, select the desired language and click **OK**.

The changes will apply after you restart the Dispatch Console.

# 6.3.4.4 Changing Password

• On the Tools menu, click Change Password

Change Password	×	
Change Passu	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.

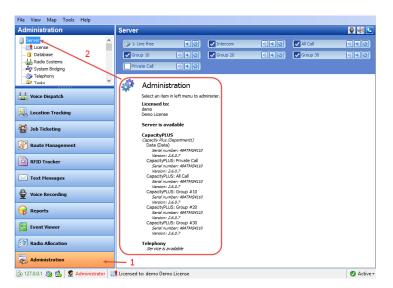
# • Help > About

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

Click the Administration tab to set system elements and options.

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



# 6.4.1 Database

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



File View Map Tools Help				
Administration	Database			ê 🐠 🔽
Server	>>>>>>>>>>>>>>>>>>>>>>>>>>>>		All Call	) # 0 ) # 0
Voice Dispatch	Database Information			
Location Tracking	Server name:	(local) \SQLEXPRESS		
Eocation Tracking	Database name:	TRBOnet		
Job Ticketing	Backup date: Database version:	25-Oct-2016 16:28:26 Microsoft SOL Server 2014 (SP2)	(KB3171021) - 12.0.5000.0 (X64)	
Route Management		Jun 17 2016 19:14:09 Copyright (c) Microsoft Corporatio Express Edition (64-bit) on Windo	n	
RFID Tracker	Data size: Audio size:	17.23 MB 22.77 MB		
C Text Messages	A000 522.	22.77 HD		
Voice Recording				
Reports				
Event Viewer				
8 Radio Allocation	_ 1			
Administration				
访 127.0.0.1 🛞 🐟 💆 Administrator 📗	Licensed to: demo Demo License			🕑 Active -

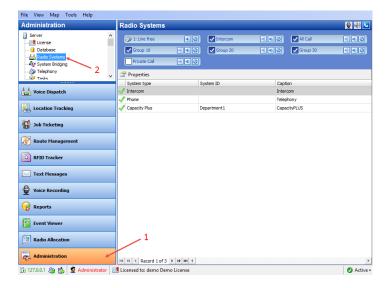
In the **Database** pane, the administrator can restore and back up the database and audio recordings.

For more details on backups, see <u>Appendix D: Backing up and Restoring Database</u> and <u>Audio Recordings</u> (page 348).

# 6.4.2 Radio Systems

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

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).

File View Map Tools Help				
Administration	Radio Systems			🔮 🚸 🕒
Server  Ucense Database Rado Systems	I: Line free	Group 20	I € Ø ✓ Al Cal	
Telephony	Properties System type	System ID	Caption	
Uoice Dispatch	Intercom     Phone     Capacity Plus	Department 1	Telephony CapacityPLUS	
Sob Ticketing				
RFID Tracker	1			
Text Messages				
Voice Recording     Reports	-			
Event Viewer	2			
Image: Second state       Radio Allocation         Image: Administration       Image: Second state				
to 127.0.0.1 (a) to 127.0.0.1	Licensed to: demo Demo License			Active •
Reset Properties				

The administrator is able to see Active and Inactive registered systems. In case you have more than 10 registered systems, systems are grouped and can be seen in the drop-down list.

Common information for all system elements is listed below:

# **Description tab**

On the **Description** tab, you can see the general info:

Repeater #1: Slot #	1	Х
Description Cha	nnels Transmits	
System Type:	IP Site Connect	
System ID:	Department1	
Caption:	Repeater #1: Slot #1	]
	OK Cancel	



# • System Type

The system type for a repeater/control station (in Digital or Analogue mode). For more details on the systems, see section <u>3.2, MOTOTRBO Radio Systems</u> (page 4).

• System ID

The Unique System Identifier configured in TRBOnet Server for a repeater or control stations in the system.

• Caption Enter the system name.

#### **Channels tab**

On the **Channels** tab, you see the list of channels:

Repeater #1: Slot #1		×
Description Channels Transmits		
👚 Properties ່ Control 🚔 Re	set	
Name	Voice	Data
Repeater #1: Slot #1	RX, TX	RX, TX
Channel for private and phone calls:		
		•
	ОК	Cancel

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

Repeater #1:	Slot #1	$\times$
Description	Talk groups Volume	
ID:	8ccc8f18-a3e6-4b4f-b8e7-581e19debceb	
Name:	Repeater #1: Slot #1	
Type:	MOTOTRBO Repeater	
Mode:	IP Site Connect	
Connec	ted	
Serial	Number: 484TMG4110	
Firmw	are version: 2.6.0.7	
	OK	

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>5.9.3.1, Control Station</u> <u>Connection Modes</u> (page 34).

- 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:

Repea	ter #1	: Slot #1			×
Des	cription	1 Talk groups	Volume		
Sp	becify	available talk gr	oups		
Ī	All C	Call		 	
K		emen			
L.	Poli	ce			
				ж	Cancel

 Specify available Talk groups for the system element in the list of created Talk groups.

Selected Talk groups are available on the **Radio** tab in the system element box in the drop-down list:





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	lot #1			×
Description	Talk groups	Volume		
	÷		+	
	$\rightarrow$			
	$\bigcirc$		$\ominus$	
	RX		TX	
	<u>Reset</u>		Reset	
Confi	gure system \	/olume		
			ОК	Cancel

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

#### **Transmits tab**

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

Repeater #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 a DTMF sequence to be used to mute the selected channel.
- **Unmute channel** Enter a 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>6.4.16</u>, <u>Dispatcher Groups</u>).

# **Transmits tab**

Transmits			
me (ms):			
3000		*	
4000		<b>*</b>	
60		÷ se	conds
,			
	0		Cancel
	me (ms): 3000 4000	me (ms): 3000 4000 60	me (ms): 3000 * 4000 *

# 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

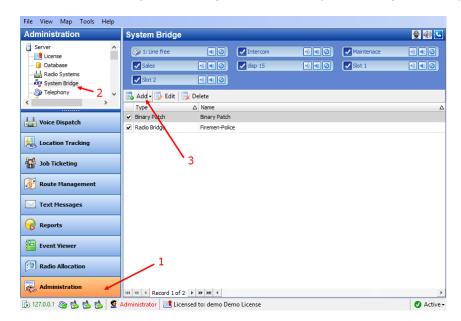
Enter the time, in seconds, to be used as a voice session limit. When the dispatcher starts a voice session over the Intercom channel, transmission will be interrupted after this TX Timeout expires.

# 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).
- 2. **System Bridge for Repeaters (Binary Patch)** allows connecting only the repeater slots in an IP Site Connect system without encoding/decoding voice and data.

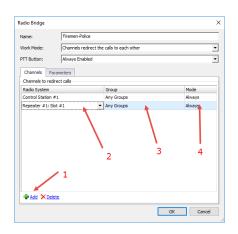


Go to Administration (1), System Bridge (2) to add a System Bridge to the system:

Click the Add button (3) to add a System Bridge.
 From the drop-down menu, select the System Bridge type.



# **Radio Bridge**



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 Bridging types, see <u>6.4.3.1, Radio Bridge Types</u> (page 140).

PTT Button

Set PTT on the System Bridging interface to be able to transmit voice, or do not set only to hear the voice from other channels. 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 System Bridge always, regardless of the radio status (online/offline).

• By Radio

Enables System Bridging 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 System Bridging:



Name:	Firemen-Police		
Work Mode:	Channels redirect	the calls to each other	•
PTT Button:	Invisible		
Channels F	arameters		
Specify ca	ll types for System B	ridge:	
Voice Call		Text Message	
Check Ra	dio	Telemetry	
🔲 Enable/Di	sable Radio	Location (GPS)	
Call Alert		User Data	
Emergence	y Alert		

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

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

File View Map Tools Help		
Voice Dispatch	Radio Interface	😫 🗐
🚮 🗄 🗄 👶 🛠 🍸 🔎 🗗 🚽	Radio Interface Recent Calis/Events	
	Active Calls	Start Voice Message
🔝 💌 125 (Pete) 🗦 🕅 🗖		
(f) 222		Voice Message
🐔 🕑 235 (Basil) 📮 🔇		Voice Message
	Free channel	Patch X
Voice Dispatch	All Call	
Tele Colectoryacca		Drag and Drop PTT Box here to create new group
Location Tracking	🔽 Group 10 📧 🕢	
	Police	System Bridge
📅 Job Ticketing	PTT Administrator	CapacityP PTT
~	Police	All Call CapacityP
👏 Route Management	Group 20 ◎ ● ◎	Cleaners
RFID Tracker	Firemen	Firemen - Police
RTID Tracker	PTT Administrator	A CapacityP
Text Messages	Firemen	Police PTT
		CapacityP Firemen
🚭 Voice Recording	Coroup 30 (1) (4) (2) ∨ Recent Calls/Events	Hremen V
-	🕮 Playback 📓 Save - 🖨 Print 🔢 Pause 🧭 Clear - 🗞 Reload 🏋 Filter By Radio	The second secon
🕞 Reports		Details Note
····	Date Radio System Sender Recipient Message I Annu Sender Recipient Dispatcher 'Administrator Firemen Dispatcher 'Administrat N	
Event Viewer	18-Nov-2016 17:18:52 CapacityPLUS Administrator Police Dispatcher 'Administra N	
19 Radio Allocation	2 18-Nov-2016 17:18:49 CapacityPLUS Administrator All All Call from dispatche N	Members: Administrator
	18-Nov-2016 17:16:31 CapacityPLUS 125 All All Call from '125' (00:01)      H ≪ ≪ Record 1 of 672      H → ₩ ≪ ≪	Members: 125
Administration	Recent Calls/Events Recent Calls Request to Talk Radio State Active Tasks Active Router	s User Activity Map Cameras
🔂 127.0.0.1 🛞 🕵 🧕 Administrator 🗉	Licensed to: demo Demo License	Active •

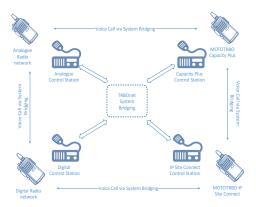
#### 6.4.3.1 Radio Bridge Types

1. Channels redirect the calls to each other

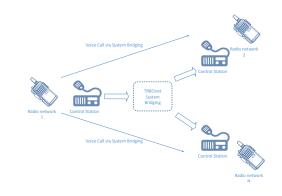
This is the most common type of System Bridging when data exchanges between the channels set in the System Bridging settings. Thus, there is a common channel for all the subscribers of the specified control stations:

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



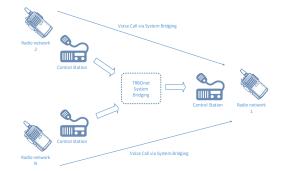


2. A channel redirects calls to many channels



To create this type of System Bridging, 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 Bridging, 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 the radio systems.



# **Binary Patch (for IP Site Connect only)**

lame:	Binary Patch			
Rules				
Rule 1 of 2				/
Slot: Slot 1			Voice	🗸 Data
All Calls		Private Calls	Group Calls	
Groups: (All Gro	iups)			
Repeaters: (All	Repeaters)			
Rule 2 of 2				/
Slot: Slot 2			Voice	🗌 Data
All Calls		Private Calls	Group Calls	
Groups: (All Gro	ups)			
Repeaters: (All	Repeaters)			
🖗 Add 🗙 Delete				

#### • Name

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

• Rules

Specify the rules for redirecting calls.

- Check Voice/Data to transmit on the selected slot.
- Select available **Call types**.
- Select available **Groups** for System Bridging from the drop-down list.
- Select available **Repeaters** to redirect calls in System Bridging from the drop-down list.

The Binary Patches are displayed on the Patch panel of the Radio Interface pane:

oice Dispatch	Radio Interface
li 🗄 🛔 🤱 🗶 🍸 🕡 💡	Radio Interface Telephony Recent Cals/Events
Administrator       Online, Indoor (0)	Active Calls
Online, GPS Fixe Online, No GPS (0) Offline (2)	Control Station #1 di di di PTT Free channel Al Cal Channel 4 PTT Free channel PTT Free channel 7 PTT Bax here to PTT Bax here to
GPS Positioning	Group 2     If If II       PTT     Free channel       PTT     Free channel       PTT     Alcal
Route Management	
Text Messages	Recent Calls/Events
Voice Recording	🕾 Playback 🚽 Save - 🍚 Print   11 Pause 🏈 Clear - 🍣 Reload   🌇 Filter By Radio   🚍 Grouping 🍸 Auto Filter 🗇 Default Settings   🛣 Deta
Reports	Date         Radio System         Sender         Recipient         Message         Details         Note         Ext. Note           2/17-Oct-2016 14/21/07         Repeater #1: Slot #1: 125         Al         Al Call from '125 (00:01)         Members: 125           2/17-Oct-2016 14/21/06         Control Station #1         Dispatcher         Al         Al Call from float form '125 (00:01)         Members: 125
Event Viewer	I POCCADID 14/21/02 Control Station #1 Dispatcher Al Al Call from dispatcher      I POCCADID 14/21/02 Control Station #1 Dispatcher Al Al Call from dispatcher      I POCCADID 14/21/02 Control Station #1     Dispatcher Al Al Call from dispatcher
Radio Allocation	I/P Oct-2016 14:20:51         Repeater #1: Slot #1         IZS         Al         Al Cal from 'IZS' (00:01)         Members: IZS           I/I 20-2016 14:20:51         Control Station at 1         Desathine         Al         All Cal from 'IzS' (00:01)         Members: IZS
	TT TT RECORD 101 333 F F F F TT

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

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 calls	
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 ca	all
✓ Play tone when PTT changed	$\ominus$ $\rightarrow$ $\oplus$
DTMF Access code:	0
DTMF Deaccess code:	#
	OK Cancel

Allow subscribers to make outgoing calls
 Select this ention to enable outgoing phone calls from

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 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 ention to cond a text message to the radio

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 Dispatch Ce	nter: Open voice menu
Call to external nur	mber: Use number as Internal
Extention numb	ers (voice menu)
Start call automa	aticaly
Max. number lengt	h: Unlimited 🔶 Accept code: 🛛 #
Number	Call Description
0	Call dispatcher (any available)
<number></number>	Call radio with Radio ID = <number></number>
	Delete

# • 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		×
Excension number	-		~
Static numb	er		
C Dynamic nu	mber		
Number:	123456		
Call Type:	Call Group		▼
Channel:	Control Station #1		•
Group:	All Call		•
		ОК	Cancel

#### Number

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

#### Call Type

Select the call type from the drop-down list.

• Call Dispatcher

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

• Call Radio

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

• Call Group

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

Channel

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

Dispatcher/Radio/Group

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

#### To add a dynamic number

Choose Dynamic number.



Extension numb	er X
<ul> <li>Static numb</li> <li>Dynamic nu</li> </ul>	-
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  Server Server Server  Server  Server  Server  Server  Server  Server  Server  Server  Server  Server  Server  Server  Server  Server  Server  Server  Server	I: Line free     Intercom     Intercom       Configure Calls     Extensions     Redirect Calls     Alases       Profiles       Add f     Edit     X Delete     Grouping       Add f     Edit     X Delete     Grouping
	SIP Phone SIP User Caption
🐼 Tasks 🗸 🗸	TRBOnet Mobile Client 1234 Internal PBX Server
4.4	📑 Radio 125 125 125
Voice Dispatch	Radio 235 235 235
Location Tracking	
😥 Route Management	
V Text Messages	
Radio Allocation	1
Administration	H4 44 4 Record 1 of 3 ) ) H H4
🚯 127.0.0.1 🛞 🦉 Administrator 📑 Lic	ensed to: demo Demo License 🕜 Active

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

Phone User		Х
SIP ID:	2409	
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				👲 🐠 😉
→ Radio Systems     ▲       → System Bridging     →       → System Bridging     →       → System Bridging     →       → Telephony     2       → Modbus TCP Connections     ✓	<ul> <li>1: Line free</li> <li>disp 15</li> <li>Slot 2</li> </ul>		Slot 1	• 0	
< >	Configure Calls	1	irect Calls Aliases Profiles		
Voice Dispatch			irouping 🍸 Auto Filter 🗇 Defau		
Location Tracking	Call to	direct Call	•3	×	
😸 Job Ticketing	4	Call to: Target:	💑 Dispatcher 1	•	
😥 Route Management		lincouti	30 🗘 seconds		
C Text Messages		Redirect to: Type:	🔞 Radio Group	•	
🔮 Voice Recording			Slot 1	•	
Event Viewer		-	👹 Firemen Normal	- -	
😥 Radio Allocation			ОК Са	ancel	
Administration	HI 41 4 Record 0	of0 + ++ ++ 4			Þ
🐻 127.0.0.1 🛞 🕵 🕵 🕵 Administr	ator 🚺 21 days b	efore your Support e	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**

• Туре

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

Decline

The calls will be declined.

• Dispatcher

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

• Radio unit

The calls will be redirected to a specified radio.

• Radio Group

The calls will be redirected to a specified radio group.

• Phone account

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

Radio System

If a radio group is selected as the redirection destination, select the radio system over which to make a call to the specified radio group.

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  Conse  Conse  Co	>	<ul> <li>1: Line free</li> <li>Sales</li> <li>Group 20</li> <li>Group 22</li> </ul>		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	▶ ₩ <del>4</del>				)
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 Help					
Administration	Telephony				🔮 🐠 🔽
Server	✓ Sales	💻 Grouping 💙	5 0 C		
Voice Dispatch	Name Fedora Mals	Profile General Patterns Name:	5 Inheritance	×	
Job Ticketing	`4	Description:	Restirct dialing to Jeff		
Text Messages		Apply to Incoming	-		
Event Viewer	_ 1				
Administration	HI HI H Record 1 of 2 + ++		OK	Cancel	
🚺 127.0.0.1 🚷 🕵 🕵 💆 Adm	inistrator 🛛 📑 Licensed to: dem	o Demo License			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.

rofile				
General	Patterns	Inheritance		
* - any nu ? - one chi	mber of cha aracter	hars in pattern: racters mbers from xxx to yyy		
1				
*411???				×
0.110-1-11		Negaral		
Call Priorit	y:	Normal		•
			ОК	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.

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

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

Go to Administration (1), Tasks (2) to see the list of the tasks created in the system:

File View Map Tools Help						
Administration	Tasks					👲 🚳 🔽
Server	Intercom		🔉 1: Line free	•0	All Call	
间 Database	Group 10		Group 20		Group 30	
Radio Systems	Private Cal					
System Bridging 						
Tasks	📑 Add 🔹 🛃 Edit	🔍 Delete				
Virtual Modbus Devices 2	Task Name					
Event/Alarm Management	🗆 🔚 Agenda					
👰 Swift Event Profiles	🗸 🗌 🚵 Dispatcher Pres	ence Control				
	🔲 💮 Export to SWD ·	Location of radio				
Voice Dispatch	🗹 📑 Geofencing					
	🗹 💮 Ide Time					
Location Tracking	🗹 💁 Lone Worker 1					
0	Mesages 1_Mes	sages for Period				
😸 Job Ticketing	Missed GPS data	loading				
$\sim$	Radio Allocation	(Sprite Forms)				
🥂 Route Management	🗹 🖼 SMS and Email n	otifications				
	🗹 💮 Timer					
RFID Tracker	💌 🄗 User Activity					
	Voice Message					
Text Messages	🗹 🔖 Voice Message					
🔮 Voice Recording						
Event Viewer	3					
8 Radio Allocation	_1					
Administration	HI II Record 12 of	14 ▶ ₩ ₩ 4				
🔂 127.0.0.1 🛞 🔥 💆 Administrator 📃	Licensed to: demo Demo I	License				Active

Note: After you have created a task you need to enable it. Just select the check box (3) 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.



• Click **Tasks** (1), and double-click **Dispatcher Presence Control** (2) in the **Tasks** pane.

A L Cal   Dabase   A Stable Systems   A System indiging   Takaba Systems   Takaba Systems   Wurde Cal   Takaba Systems   Wurde Cal   Takaba Systems   Database   Database <tr< th=""><th>2 🕪 🔽</th></tr<>	2 🕪 🔽
Active researce     Voice Recording	
Image: System Sides	
Telephon   Telephon   Telephon   Tak Name   Wuke Modus Devices   Woke Dispatch   Dispatche Presence Control   Dispatche Tracking   Sob Ticketing   Noute Hanagement   Net Hensages   Valce Recording   Valce Recording	
Withel Modus Devices   Do Tracking   Do Tracking   Nature Hanagement   Nature Hensagement   Voice Recording   Voice Recording	
Visite Roduct Devices <ul> <li>             Yolke Dispatch</li> <li>             Yolke Dispatch</li> <li>             Second Seco</li></ul>	
Voice Dispatch          Beport to SWD - Looken of rado         Sector in a sector in	-
I voice Dispatch     I is Gefencing       I toation Tracking     I is Briti       I tob Ticketing     I is Ski and Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Email notifications       I tob Ticketing     I is Vision of Ema	
tocation Tracking   totation Tracking <td></td>	
Vicketing   Volt Tracker   Text Hessages   Volce Recording   tvent Viewer	
Image: Solution of the store of t	
You (NetChing)     Image: Control of the state of the sta	
RFID Tracker         Text Hessages         Voice Recording         Event Viewer	
Voice Recording	
Voice Recording	
Voice Recording  Voice Voice recording  Voice Recording  Voice Recording	
Event Viewer	
1 Radio Allocation	
Administration	

• In the **Dispatcher Presence Control** dialog box, specify the following options:

Dispatcher Presence Control	×
Presence timeout Reminder time	10   minutes     30   minutes
All Dispatchers     Selected Dispatchers     Dispatchers     Notifications	Y
	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 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, select **Tasks** (1), and click **Add > Agenda** (2).

File View Map Tools Help		
Administration	Tasks	👲 🚸 🔽
Server	Intercom         0         0         0         0         1         1         0         1         1         0         1         1         0         1         1         0         1         0         1         1         0         1         1         0         1         1         0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1<	•) •: Ø
Telephony     Tass     Tass     Tass     Telephony     Tass     Telephony     Trial Modbus Devices     Event/Alarm Management     Swift Event Profiles     V	Adel -         -         Detete           ****         Lone Worker         -           ****         Dependent Market         -           *****         Dependent Market         -           ************************************	۵
Voice Dispatch	Agenda Import Routes	
Location Tracking	Scheduled Report     HotSOS     d     Timer	
Route Management	Missed GPS data loading Sign-in notification	
RFID Tracker	Image: Image	
Text Messages	✓ ♥ Voice Message     ✓ ♥ Voice Message	
Voice Recording		
Event Viewer		
Administration	int (vt   Record 1 of 14 ) → () → () → () → () → () → () → () →	Active -

• In the Agenda dialog box, specify the following parameters.

Agenda	×
Task name: Agenda Settings	
Outgoing folder (on server): C:\Outgoing Incoming folder (on server):	
C:\Incoming	
Wait for response(sec): Text to confirm:	120 🔹
	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.

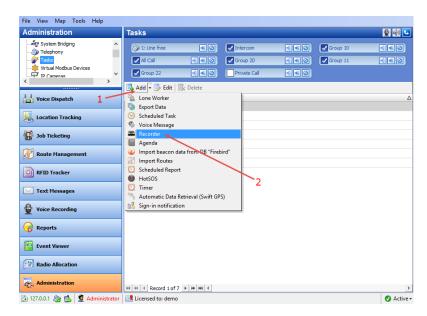
#### Text to confirm

Specify the text to be sent by the subscribers after they receive the message.

#### 6.4.5.3 Recorder

The Recorder feature allows connecting to an audio recorder via IP.

• To enable the task, select **Tasks**, and click **Add** (1) > **Recorder** (2):



The feature allows replicating audio recordings to the recorder:

Audio Re	corder	×
Task nan	me: Audio Recorder	
Settings		
IP:	10.10.169.121	
Port:	9094	
Te	est of Channels	
	l	OK Cancel

• 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.

#### 6.4.5.4 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 enable the task, select **Tasks**, and click **Add** (1) > **Import beacon data from DB** "Firebird" (2):

File View Me	. Taala Ilala						
Administrat	ip Tools Help	Taaka					
		Tasks					ê
	^	1: Line free	•0	Intercom			
		Group 10		All Call			
IP Camera		Group 20		Group 11			
Event/Ala	rm Management	Group 22		Private Cal			
Uoice Disp	atch						
Voice Disp	acci	🛃 Add 🝷 🔜 Edit 📑	Delete	-			
Location T	racking /	Lone Worker Export Data					Δ
		Scheduled Task					
🐨 Job Ticket	ting 1	🍕 Voice Message					
Route Mai		agenda 🗧					
😿 Route Mai	nagement	Import beacon data	from DB "Fireb	ird"			
RFID Trad	ker	<ul> <li>Import Routes</li> <li>Scheduled Report</li> </ul>					
		HotSOS					
C Text Mess	ages	💟 Timer					
0		🐴 Automatic Data Ref	rieval (Swift GP	S)	2		
Voice Reco	ording	Sign-in notification					
Reports							
OD							
Event Viev	ver						
(TE)							
😥 Radio Allo	cation						
administr	ation						
-		141 44 4 Record 1 of 7					•
í 127.0.0.1 📎	🔁 💆 Administ	rator 📑 Licensed to: der	no				🕑 Active 🕶
	Import heaco	n data from DB "Fire	bird"			×	
	import beaco		biru			~	
	Name:	Import beacon d	ata from DB	"Firebird"			
		import boddorr d					
	Settings Imp	port					
	Server:			User:			
	localhos	at		SYSDBA		1	
						_	
	Databas	se path:		Password:		- I	
				•••••			
	Port:			Update (sec):			
	3050	-		10 🜲			
	Te	st					
					OK	Cancel	

• Name

Specify a name for the task.

• Server

Specify a remote server or a server on the local PC.



• User

Type in a 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&gt;</td><td></td><td>-</td><td>In</td><td>port</td><td></td><td></td><td></td></the>			Poss	ible>		-	In	port			
ı ☑ 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.

#### 6.4.5.5 Import Phone Addresses

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

To perform this task:

- Select Tasks, and click Add > Import Phone Addresses (NENA)
- In the **Import Phone Addresses (NENA)** dialog box, browse for the corresponding \*.CSV file, and click **OK**.



## 6.4.5.6 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, select **Tasks** (1), and click **Add > Export Data** (2):

File View Map Tools Help						
Administration	Tasks					👲 🐵 🕒
Server  Conse  Database  Add Systems  System Bridging	Group 10		3: Line free Group 20	<0 •) <0	All Call	0) 4: 0
Telephony Tass Vitual Modbus Devices Utual Vitual Modbus Devices Utual Vitual Modbus Devices Swift Event / Alarm Management Swift Event Profiles	Add - Export Data					۵
Voice Dispatch	<ul> <li>Voice Message</li> <li>Agenda</li> <li>Import Routes</li> </ul>	do				
Location Tracking	Scheduled Report	xd	2			
📅 Job Ticketing	Dimer Timer Missed GPS data lo					
💓 Route Management	Sign-in notification	n				
RFID Tracker	User Activity					
Text Messages	Voice Message					
Voice Recording	-					
Event Viewer	-					
Radio Allocation						
Administration	144 44 4 Record 1 of 14					Þ
🔂 127.0.0.1 🍓 🕵 🙎 Administrator 📑 L	icensed to: demo Demo Lio	ense				Active •

• In the **Export Data** dialog box, specify the following parameters:

Export Data						:	×
Task name:	Ex	port to data	base table -	Location	ofradio		
Type:	Ex	port to data	base table				•
Data:	Lo	cation of rac	dio				•
Connection	Data	Scheduler	Advanced				
C Default							
Server nan	ne	(local)\S	QLEXPRESS				
Database r	name	TRBOnet	t			•	
Window	/s authe	ntication					
User name							
User passv	vord						
					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

Task name:	E	port to data	abase table - Lo	cation of radio	1	
Type:	E	xport to data	abase table			
Data:	L	ocation of ra	dio			
Connection	Data	Scheduler	Advanced			
Table:	Π	Export_Loca	itions]			٦
Column m			-	Create table	Load columns list	t
Table col			Data			1
Date			Location date		-	
Latitude			Latitude			L
Longitud	2		Longitude			L
			Speed			
Speed						
Speed Direction			Direction			
· ·			Direction Accuracy			



#### • 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:

reate	table	;
	Create new table to	
	Active database cor	nection
lable	e name: Export	Locations
Colur	mn list:	
	Table column	Data
	Date	Location date
	Latitude	Latitude
V	Longitude	Longitude
	Speed	Speed
V	Direction	Direction
	Precision	Accuracy
	RadioID	Radio ID
	ID	Unique radio ID
	Name	Radio name
	ExportDate	Export date
	aless 1	ales 1

Select the data fields to add to the table.

# Scheduler tab

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

• Days of week

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

# • Execute recurrently with interval Choose this option to perform data export on a periodic basis.

Start time

Specify the time at which to start data export.



#### Stop time

Specify the time at which to stop data export.

# Repeat every

Specify a time period for periodic data exports.

## • Execute at particular time

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

# Advanced tab

Export Data	×
Task name:	Export to database table - Location of radio
Type:	Export to database table
Data:	Location of radio
Connection D	ata Scheduler Advanced
Export mod	only changed data e ys add new records te existing and add new records te existing records
	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.

#### 6.4.5.7 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.

• Click **Tasks** (1), and double-click **Geofencing** (2) in the **Tasks** pane.



File View Map Tools Help		
Administration	Tasks	🔮 🚸 🕒
Server Server Conse Conse Conse Consection	Comp 10     Comp 20     C	
Tasks     Tasks     Tasks     Virtual Modbus Devices     Event/Alarm Management     Swift Event Profiles	Add +  A	Δ
Voice Dispatch	○     Export to SVD - Location of radio       ✓     I        ✓     I        ✓     I        ✓     I        ✓     I        ✓     I	
Location Tracking	Cone Worker 1	
📅 Job Ticketing	Mosed GPS data loading     GRadio Allocation (Sprite Forms)	
👷 Route Management	SMS and Email notifications	
RFID Tracker	Image: Weight of the state of the	
Text Messages	Voice Message	
Voice Recording		
Event Viewer		
Radio Allocation		
Administration	144 44 4 Record 4 of 14 + 14 194 4	Þ
访 127.0.0.1 🍇 🅵 💆 Administrator	📑 Licensed to: demo Demo License	🕑 Active -

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	General Location Speed Regions Radios Lone Worker	
\4	Name: Monitor Area 3 Description: Watch out for the workers	] ] ]
	✓ Activate the rule on a schedule       Days of week:     Monday, Tuesday, Wednesday, Thursday, ▼       Start time:     9:00       Stop time:     18:00	]
	After the rule is triggered:	
Rerun the rules after each rule edit, s       Add Rule         Disable ti	2 3 erver resolut and at the start of each scheduled time window (not recommended) () uule Delete Rule 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

Mentor Area 1  Mentor Area 3  Mentor Area 3  Mentor Area 3  Mentor Area 3  Define the subcrober's relative positioning conditions which will Higger the rule and choose specific actions to perform when the rule is executed  Troger this rule when a subcrober's relative positioning conditions which will Higger the rule and choose specific actions to perform when the rule is executed  Troger this rule when a subcrober's relative positioning conditions which will Higger the rule and choose specific actions to perform when the rule is executed  Troger this rule when a subcrober's relative positioning regions:  Consess any border  Perform the following actions: Cons	Rules	General Location Speed Regions Radios Lone Worker
Rerun the rules after each rule edit, server restart and at the start of each scheduled time window (not recommended)		Define the subscriber's relative positioning conditions which will trigger the rule and choose specific actions to perform when the rule is executed           Trigger this rule when a subscriber:           Enters the selected regions           For multiple nested/overlapping regions:           Or crosses outer border only           Crosses any border           Perform the following actions:           Activate Lawren mode           Activate Liner Worker mode           Send notification           Recipients
	Rerun the rules after each rule edit,	server restart and at the start of each scheduled time window (not recommended) ()

#### 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 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	lios Lone V	Vorker			
Monitor Area 1 Monitor Area 3	Define the subscriber's motion attribut to perform when the rule is executed	tes which w	/il trigg	er the rule an	id choose specit	ic actions
	Trigger this rule when a subscriber:					
	Moves faster than:	60	÷	km/h		
	Moves slower than:	10	÷	km/h		
	Stands still for longer than:	90	÷	seconds		
	Track speed in relation to regions:	Everywhe	ere		-	
	Send Text Nessage to the source					
	edit, server restart and at the start of each sch	ad lad time	windo	v (pot recom	mended) (i)	

#### 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	General Location Speed Regions Radios Lone Worker
Monitor Area 1	
Monitor Area 3	Select the regions where this rule can be triggered
Monitor Zone 2	O All regions
	Only selected regions
	Regions /
	456789
	My zone
	Route 1
	Route 2
	Zone 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) $({f i})$
Add Rule 🔻 Disable	e 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 Contro	91	×
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	
	Fremen	
	(f) 125 (Pete) 125	
	235 (Basil) 235	
	Police	
	1234	5
		\
	a a a a	<b>1</b>
		101 F
Rerun the rules after each ru	ule edit, server restart and at the start of each scheduled time window (not recommended) (	Ð
Add Rule 🔻	Disable 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	X
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 Al Deselect Al
Rerun the rules after each rule edit,	server restart and at the start of each scheduled time window (not recommended) (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;
		<b>Days of week</b> - 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;



Event type	Tab Name	Parameters Description
		<ul> <li>Only selected radios – choose to apply the rule for one or several radios;</li> <li>Select all – click to select all radios in the list;</li> <li>Clear all – click to unselect all radios in the list.</li> </ul>
Map Region.	General	<b>Regions Control</b> – select to enable regions control;
Allows configuring rules when a		<b>Control mode</b> – 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;
		<b>Control mode</b> – 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;
		<b>Reset Alarm mode if the rule is not triggered</b> - 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	<b>Only selected regions</b> – choose to apply the rule for one or several regions;
		Select all – click to select all regions in the list;
		<b>Clear all</b> – click to unselect all regions in the list.
	Radios	See above.
	Lone Worker.	<b>All Tasks</b> – choose to apply all tasks configured by the administrator when the rule has been triggered;



Event type	Tab Name	Parameters Description
	Enables Lone Worker when the rule has been triggered	<b>Only selected tasks</b> – choose this option, and in the list below, select the Lone Worker tasks to be executed when the rule has been triggered.
Beacons.	General	Control mode:
Allows configuring rules when a radio (s) enters or leaves		<b>Control entering beacon coverage zone</b> – select to enable the rule when a radio enters beacon coverage zone;
the beacon coverage zone		<b>Control leaving beacon coverage zone</b> - 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;
		<b>Reset Alarm mode if the rule is not triggered</b> – select to reset Alarm mode in the Dispatch Console automatically if the rule condition was not triggered (for example, when <b>Control entering beacon coverage zone</b> 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	<b>Only selected beacons</b> – 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		<b>Control Entering Region</b> – 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 coverage zone		<b>Control Leaving Region</b> - 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;
		<b>Reset Alarm mode if the rule is not triggered</b> – select to reset Alarm mode in the Dispatch Console automatically if the rule condition was not triggered (for example, when <b>Control Entering Region</b> 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;
		<b>Minimum distance between radios</b> – specify the distance, in meters. When a distance is less than the selected value, the rule will be triggered according to the settings above.
		<b>Color of region</b> – select the 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	<b>Days of week</b> - 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.

# 6.4.5.8 Idle Time

The Idle Time feature allows monitoring vehicles idle time assigning Telemetry Commands on selected VIOs.

• Click Tasks (1), and double-click Idle Time (2) in the Tasks pane.



File View Map Tools Help		
Administration	Tasks	👲 🚸 🕒
Server   License  Database  Associations  Control of the server of the s	✓         Intercom         ○         I Line free         € (o)         A Cal           ✓         Group 10         ○         € (oup 20         0         € (oup 30)           Private Cal         ○         € (oup 20         0         € (oup 30)           Private Cal         ○         € (oup 20)         0         € (oup 30)           M Ad +          Edit         , belete         Task Name           Image and a         Image and a         Image and a	
Event/Alarm Management	Dispatcher Presence Control	
Voice Dispatch	Bexport to SWD - Location of radio     Geofencing     Geofencing     Gode Time	
Location Tracking	Cane Worker 1	
😽 Job Ticketing	✓ Mesages 1_Mesages To Period     ✓ To Mesages To Period     ✓ To Mesages 1_Mesages To Period     ✓ To Mesages 1_Mesages	
😥 Route Management	G Radio Allocation (Sprite Forms)	
RFID Tracker	<ul> <li>✓ ∰ Timer</li> <li>✓ ∰ User Activity</li> </ul>	
C Text Messages	<ul> <li>✓ ♥ Voice Message</li> <li>✓ ♥ Voice Message</li> </ul>	
🔮 Voice Recording		
Event Viewer		
Radio Allocation		
Administration	144 4 Record 5 of 14 1 19 199 4	Active •

Specify the telemetry command to set the Idle Time:

Idle Time				×
Start Stop	VIO: VIO:		Command: High Command: High	•
		,	ОК	Cancel

#### Start

• Specify the telemetry VIO and Command to start the Idle Time.

#### Stop

• Specify the telemetry VIO and Command to stop the Idle Time.

The administrator can see Idle Time reports and statistics.

Click **Reports** (1), and under **GPS reports**, click **Idle Time Summary** or **Idle Time detailed** (2) to see a common Idle Time report:

File View Map Tools Help		
Reports	GPS reports	🔮 🚳 🔽
GPS reports	③ 1: Line free     €     ○     Intercom     0     €     Maintenace	
Location on Date	Sales 🔊 📢 🖉 Group 10 🔊 📢 🖉 disp	• • •
Drive Activity Details	EMERGENCY GROUP · GROUP · GROUP · GROUP · Group 20	
Drive Activity Summary	All Call 🔹 🖉 🛛 Group 11 👘 📢 🖉 Group 22	
Speed for Period	Group 1 + Private Call + A C	
Ide Time Summary		
Prograde mile becaus	Report Settings	
Le Voice Dispatch	Idle Time Summary	
Location Tracking	Saved Profiles:Not defined	
200 Ticketing	Select data by period:	
Sob Ticketing	Start Date: 4/26/2017 12:00 AM 💌	
🕢 Route Management	End Date: <pre><maximum date=""> </maximum></pre>	
	- Filter:	
Text Messages	Radio:Not defined	
Voice Recording	Logical Group:Not defined	
Voice Recording	Radio ID (e.g. 22,33,40-55,88 ):	
Reports		
	Speed: 1 km/h	
🔞 Radio Allocation	1 3	
Administration	Generate Report Save Report Profile Delete Report Profile	
🔂 Connected 🚷 🕵 🛃 Admi	nistrator 🔣 Licensed to: demo Demo License	🕑 Active -

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



#### 6.4.5.9 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, select **Tasks** (1), and click **Add > Lone Worker** (2).

File View Map Tools Help		
Administration	Tasks	9
Database ^		) 4: 0 ) 4: 0
Virtual Modbus Devices Event/Alarm Management Swift Event Profiles Voice Dispatch	Add Bione Worker	Δ
Location Tracking	Image: Worker State     Image: Worker State       Image: Worker State     Image: Worker State	
😵 Job Ticketing	Scheduled Report     HotoOs     Timer     Missed GPS data loading	
RFID Tracker	iiii     Sign-in notification       Image: Construction     Image: Construction       Image: Constructi	
Voice Recording	<ul> <li>≥ generations with the second second</li></ul>	
Reports	-	
Radio Allocation		
Administration	144 44 4 Record 5 of 14 + 1+ 1+ 14	Þ
🔂 127.0.0.1 🍓 🕵 🙎 Administrator 📑 Li	icensed to: demo Demo License	🕑 Active -

• 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:	٦
- <u>r</u>	_
OK Cano	el

#### **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		$\times$
Task name: Lone \	Norker	
Task Start Conditions	Task Stop	
Response time	30 iminutes	
Send notification to	radio	
Reminder time	60 seconds	
Send Request To	o Talk	
O Send Text Mess	age	
Message:		
Reset Lone Worker	when receiving Text Message	
Message:		
Reset Lone Worker	when receiving Telemetry command	
VIO:	Command: Any event	
Reset Lone Worker	when the distance has been traveled	
Distance:	5 🚖 km	
Do not trigger alarm	i if radio is offline for less than	
Interval:	50 🛓 seconds	
	OK Cancel	

#### • Response time

Specify the time period, in minutes, that determines how long TRBOnet Server waits since the last radio transmission.

#### • Send notification to radio

Select this option so that TRBOnet Server will send a notification to the radio before raising the alarm if the radio has not transmitted for the specified time period.



#### Reminder time

Specify the time period before it comes to raise the alarm, to send a notification asking the radio to respond.

Send Request to Talk

Choose this option to send a Request-to-Talk to the radio.

#### Send Text Message

Choose this option to send a text message to the radio. Specify the message text in the **Message** box.

- Reset Lone Worker when receiving Text Message Select this option to reset the Lone Worker task after receiving the message specified in the **Message** box.
- Reset Lone Worker when receiving Telemetry command Select this option to reset the Lone Worker task after receiving the telemetry command. If you select this option, specify the VIO contact, and from the Command drop-down list, select the signal level at which the user's radio should send the telemetry command.
- Reset Lone Worker when the distance has been traveled Select this option to reset the Lone Worker task after the distance specified in the **Distance** box has been traveled.
- **Do not trigger alarm if radio is offline for less than** Select this option so that the alarm is not triggered if the radio is offline for a time less than the time specified in the **Interval** box.

#### **Task Stop tab**

Lone Worker	×
Task name: Lone Worker 1	
Task Start Conditions Task Stop	
Manually (on demand of dispatcher)	
<ul> <li>Automatically by receiving Text Message from a radio</li> </ul>	
Message:	
<ul> <li>Automatically by receiving Telemetry Command from a radio</li> </ul>	
VIO: 1 Command: Any event	
Automatically by receiving DTMF command from subscriber	
Command: 123 #123#	
Automatically by receive Status from subscriber	
Status: 0 🗢	
Send Text Message to a radio	
Message:	
OK Car	ncel

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):

Voice	Dispatch		Radio Interface			Ŷ
<b>1</b>	🗄 👶 🕺 🕯	7	Radio Interface Telephony Recent Cals/Events			
			Terminate all Transmit		Quick Comman	ıds 🛛 🗙
0	Online, GPS		Active Calls		Configure	
×	🖲 🖲 125 (P 🕇	6	Presence in Network	0	ueued Messa	ges 🛛 🗙
*	🖲 🧶 235 (B	-	Private Call		🕽 Record 🔻 😰	File 🔻
			Send Call		: Selected Chann	
📥 Voi	ice Dispatch		Request Location		aisy.mp3	
		-	Send Message			
🖶 GP:	'S Positioning		PTT		Bobby.m	ip3
			Al Cal	Т	o: Selected Chan	nels
😽 Jol	b Ticketing 1	#1	Find on Google Earth			
2		Ņ	Show Route on Google Earth 🛛 🕡 🕷 🖉 🗌 Group 2 👘 🕷 🥥		Patch	×
🐒 Ro	ute Management		Monitoring ee channel Free channel	Dr	ag and Drop PTT B	lox here to
			Specify Custom Icons 3 PTT		create new g	oup
🗋 RFI	ID Tracker		Set Radio Channel			
_			Set On Duty : Slot #1 II C Repeater #1: Slot #2 II C	F	Patch on Repeat	ers
<u></u> ™	xt Messages		Set On Duty :: Slot #1 1 Repeater #1: Slot #2 1 Repeater #1: Slot #2			
A		_	Start Timer e - 😓 Print 🔢 Pause 🥩 Clear - 🇐 Reload 🍸 Filter By Radio 🗮 Group			1. C. W.
🚽 Voi	ice Recording	-		ping Y Aut		
Rep	ports		Date Radio System Sender Recipient Message Details		Note	Ext. Note
N Ke	ports		21-Oct-2016 17:56:27 Repeater #1: Sio Administra Police Dispatcher Administr Member			
Eve	ent Viewer		21-Oct-2016 17:56:23 Repeater #1: Slo Administra All Al Cal from dispatch Member			
	che viewei		21-Oct-2016 17:56:17 Repeater #1: Slo 125 All All Call from '125' (00 Member			
🗿 Rai	dio Allocation		21-Oct-2016 17:56:14 Repeater #1: Slo 235 All All Call from '235' (00 Member	s: 235		
, o, nu			21-Oct-2016 17:56:11 Repeater #1: Sin 235 All All Call from '235' (00 Member 235' All All Call from '235' (00 Member)	er 235		
🛃 Adı	ministration		((( ( ( Record 1 of 453 ) ) ) ) ) ( ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ) ( ) ) ) ) ) ( ) ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ( ) ) ) ( ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )			D
			Recent Calls/Events Recent Calls Radio State Active Tasks Active Routes User Activity Map C	ameras		

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

File View Map Tools Help				
Voice Dispatch	Radio Interface			👲 🗐
💼 🗄 🗄 🙈 🛠 🍸 💣 🍟	Radio Interface Telephony	Recent Calls/Events		
	Terminate all Transmit			Quick Commands 🛛 🗙 🛆
😑 🦲 Online, GPS		Active Calls	×	Configure
🛞 🕑 125 (P 🗐 🕅 🚃				Queued Messages X
🐔 🖲 235 (B 📮 🔇				Record V C File V
Online No.C				To: Selected Channels
Voice Dispatch	Telephony			Daisy.mp3
	1 2 3	<b>▼</b>		
GPS Positioning	4 5 6 👝 Mer	nu		Bobby.mp3 To: Selected Channels
8-0				10: Selected Channels
📅 Job Ticketing	Intercom			Patch 🗙
Route Management	Free channel			Drag and Drop PTT Box here to
	PTT All Call			create new group
RFID Tracker				
	Group 1			Patch on Repeaters Binary Patch
M Text Messages	Active Tasks		•	onary Pater
Generating	📕 Stop 📑 Grouping 🍸 Auto	o Filter @ Default Settings		
* -	Task	Radio	State	
Reports	Lone Worker 1	125 (Pete) 125	16:55	17:25
<b>6</b>				
Event Viewer				
Radio Allocation				
	H4 44 4 Record 1 of 1 + H+ HH			Þ
Administration	Recent Calls/Events Recent Calls		toutes User Activity Map	
🐻 127.0.0.1 🛞 🔂 🔂 🖉 Administra	stor Etcensed to: demo Demo L	icense		🖉 Active -
				• ricure

# **Enabling Lone Worker from Geofencing**

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



ocation Tracking	Мар						🔮 🛞 🛂	Objects
i 🗄 🗄 🐁 🍸 💱	> 1: Line free		Intercom	Croup 10		🗸 Al Cal 🛛 🕡 📢	0	iii li
	Group 20		-	Group 22		Private Call 🕕 🕷	=	E-V 🗁 Beacons
£ 🕑 235 🔇 🖵	🔍 🔍 👷 🏠 🛛 Fi	lter: 🛞 🛞 🗔 🙆	) 🍸 🧕 Show Beaco	ns: All 🔻 🤞	Ruler 🔍 Find on Map	• 👷 🖋 Drawing Panel 🧦	Route - 🚸 Geofencing 🙄	🗹 🌍 Coffee 📝 🌍 Tea
Police	Ja Inthia V.O.			aliniyaV	~	All		🕞 - 📝 🦢 Map Objects 🖉 🗟 Camera 1
Voice Dispatch				Ja V.O		Camera (asil'yevskiy I	sland	🗹 🔮 Hospital 🗹 💽 Police 🖉 🦢 Map Regions
Location Tracking 🦷	3	43 11		· · ·			_/	L- 🗹 🌱 Region 1
Job Ticketing		Nalimia V.O.			Tea (0)		2	L-V > 111
Route Management		A A			•	<b>(</b>		
RFID Tracker			````		Hospital	235	e.	
Z Text Messages	, <u>60 m</u>	•				125 Coffee (0)	N; Longitude: 30°16'57,04" E	
Voice Recording	Recent Calls/Events	- Print II Pau	ise 🚿 Clear 🛪 崎 Reloa	nd 🛛 🌾 Filter By Radio 🗌 🗏	Grouping 💙 Auto Filt	ter 💮 Default Settings 🖙 De	tails Show Notes 🗰 4	idd Note
Reports	Date	Radio System	Sender	Redpien	t Mei	ssage	Details	
Event Viewer	<ul> <li>09.06.2017 14:43:57</li> <li>09.06.2017 12:43:37</li> <li>09.06.2017 12:43:37</li> <li>09.06.2017 12:40:08</li> </ul>	0 Capacity Plus 1	Server Administrate 125	Al or 11 11	Disp	nnection to 'Capacity Plus 1' has be patcher 'Administrator' calls group ' dio '125' calls group '11' (00:08)		ministrator, 125
Radio Allocation	09.06.2017 12:39:55	5 Capacity Plus 1	Administrate Administrate	or 11	Disp	patcher 'Administrator' calls group ' patcher 'Administrator' calls group '	11' (00:05) Members: Ad	ministrator
	09.00.2017 12:38:34	305 + H+ HH 4	Numifistrati	a Police	Disp	percence Automisio actor cans group i	ouce (01:00) members: A0	ini ibu buði

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

📑 TRBOnet.Enterprise 5.1 / Dispatch C	onsole					-	$\Box$ $\times$
File View Map Tools Help							
GPS Positioning	Geofencing and Speed Control			×	😫 📣 🔽	Objects	
💼 🗄 🗄 🚵 🕺 🍸 🖻	Rules	General Radios Lone V	Vorker			E E	
	Monitor Area 1						
🗆 🥥 Online, GPS	Monitor Area 3	Name:	Lone Worker 2			🖻 - 🗹 🗁 E	Beer
💰 🗶 125 (P 💡 寻 📎	Lone Worker 2	Description:	Department 1				Coffee
🐔 🖲 235 (B 💡 📮 🔌						🗷 🌘	
					encing 🎇		Abiding place
Voice Dispatch						🗷 🚺	Fire dep
GPS Positioning		Days of week:	Monday, Wednesday	•	e v o		Hospital No2 Police depar
-		Start time: Stop time:	0:00 🗢				Ap Regions
😸 Job Ticketing		stop une:	0:00				7 My zone
Route Management					Nortsovaya na	i 🛁 💟 - 🖨 L 📝 🕄	Ap Routes
Koute Hanagement							
RFID Tracker					Palace		
_							
Contemporary Text Messages							
Voice Recording					A		
¥ ·					niralteyskiy		
Reports	1 <sup>1</sup>						
Event Viewer							
	Rerun the rules after each rule edit,	, server restart and at the	start of each scheduled time window (not recommended) $(i)$		TE		
Radio Allocation	Add Rule 🔽 Disable	e Rule Delete	Rule OK	Cancel			
<b>-</b>	7 Map Region				18'40.14"E		
Administration	Beacons     Recent Cals	Radio State Active T	asks Active Routes User Activity Beacons Beacon E	vents Tag List			
🚡 127.0.0.1 🚷 🔂 🕵 🙎 Adminis	stre 🎦 Lone Worker 🕇 emo Demo	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 Cont		
Rules	General Radios Lone Worker	
Monitor Area 1		
Monitor Area 3	Select radios the rule is applied for:	
< rule name >	O All radios	
	<ul> <li>Only selected radios</li> </ul>	
		<u></u>
	(£) 125 (Pete) 125	
	235 (Basil) 235	
		-
	<i>a c</i>	i= -
Rerun the rules after each	rule edit, server restart and at the start of each scheduled time window (not r	ecommended) (j)
	· · · · · · · · · · · · · · · · · · ·	
Add Rule 🔻	Disable Rule Delete Rule	OK Cancel

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
Vir Monitor Area 1	Select He tasks to be executed when the rule is triggered Al tasks Only selected tasks Conservatives I conservatives I conservatives Select All Deselect 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 🔻 Disabl	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.

## 6.4.5.10 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.
- Click Tasks (1), and double-click Radio Allocation (Sprite Forms) (2) in the Tasks pane.

Administration	Tasks	을 🐠 🛂
Server  Database Radio Systems Reg System Bridging 1		1 = 0
Telephony Tasks + Virtual Modbus Devices	Add + D Edit   Delete Task Name □ ■ Apendo	
Voice Dispatch	Bispatcher Presence Control	
Location Tracking	○ @ Export to SWD - Location of radio           ☑ ↓ geoefencing           ☑ ⊕ geoefencing           ☑ ⊕ 100 = Time	
😵 Job Ticketing	🔽 隆 Lone Worker 1	
🧭 Route Management	Image: State Control       Image: State Control       Image: State Control	
RFID Tracker	Image: Scheduled Report Intersession Section       Image: Scheduled Report Intersession Section	
🖂 Text Messages	☑     Image: SMS and Email notifications       ☑     Image: SMS and Email notifications	
🔮 Voice Recording	<ul> <li>✓ &amp; User Activity</li> <li>✓ &amp; Voice Message</li> </ul>	
📔 Event Viewer	Voice Message	
Badio Allocation		
Administration	14 44 4 Record 9 of 15 > >> >> 4	

• Load the Sprite Form (output template) and select the Field Name:

Form Description		
FORMÄTTED= 0203000FB98C0/ 0FB00F50253686 AS_ARRAY=0x02 0x4E, 0x5A, 0x20 0x05, 0x00, 0x02, 0x58, 0x63, 0x66, 0x78, 0x1E METADATA=000 FORM_TITLE=N2 FORM_ID=2 FORM_REVISION	=1 =12/12/2012 8:21:05 a.m. AF502F8004E5A204275730180000001061805000287 396674206E756D62657235AD781E 2, 0x03, 0x00, 0x0F, 0x89, 0x8C, 0x0A, 0xF5, 0x02, 0xF 1, 0x42, 0x75, 0x73, 0x01, 0x80, 0x00, 0x00, 0x01, 0x06 0x87, 0x68, 0xCE, 0x0F, 0x10, 0xFB, 0x00, 0xF5, 0x02 0x74, 0x20, 0x6E, 0x75, 0x6D, 0x62, 0x65, 0x72, 0x35 8000000000000 Z Bus	B, 0x00. ≡ , 0x18, 2, 0x53,
[Field Data #0] Prompt="Shift nun	nber"	-
		Load

• Click **OK** to add a Sprite Form.

## 6.4.5.11 Scheduled Task

This function allows sending scheduled messages to radios.

• To add a scheduled task, click Add (1) > Scheduled task (2):



File View Map Tools Help	
Administration	Tasks 🔮 🚳 🖸
Server S	✓ Intercom         € € € Ø         Al Cal         € € Ø           ✓ Group 10         € € Ø         ✓ Group 20         € € Ø         € € Ø           Monte cal         € € Ø         ✓ Group 30         € € Ø         € € Ø           Monte cal         € € Ø         ✓ Group 30         € € Ø         € € Ø           Add - B Edit         > Detee         ✓         ✓         ✓
Virtual Modbus Devices	as Ado ' as tant as bet as bet as bet as a bet
Voice Dispatch	Scheduled Task Voice Wessge
Location Tracking	Agenda
3 Job Ticketing	C Scheduled Report
Route Management	C Timer Missed GPS data loading
RFID Tracker	Sign-in notification           Image: Control of the second secon
Text Messages	V 😥 User Activity
👻 Voice Recording	🐼 🌒 Voice Message
Event Viewer	
😰 Radio Allocation	
Administration	H4 44 4 Record 1 of 14 + ++ ++ ++ 4
🔂 127.0.0.1 🚷 🥵 💆 Administrator 📑 🛃 L	icensed to: demo Demo License 🥑 Active

Scheduled Task		×
Task name:	Scheduled Task	
Command Sche	duler	
Command:	Send Text Message	1
Message:	Alarm	1
<ul> <li>Send to rac</li> <li>Send to sub</li> <li>Recipient</li> <li>Firemen</li> <li>✓ Police</li> </ul>		-
	OK Cancel	
	OK	

## 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:

Scheduled Task 1          Task name:       Scheduled Task 1         Command       Scheduler         Command:       Send Voice Message         Image: Decord message       Image: Decord message         Image: Decord message       Playback message         Image: Decord message       Image: Decord message         Image: Decord m					
Command       Scheduler         Command:       Send Voice Message         Image: Send Voice Message       Image: Send Voice Message         Image: Send Voice Message: Send Voice Message       Image: Send Voice Message: Send Voice Message         Image: Send V	Scheduled	Task			×
Command:       Send Voice Message         Image: Send Voice Message         Image: Send from file         Record message         Playback message         Playback message         Call Type         Channel       Call Target         Private Call       Auto Detect       125         Group Call       Last Repeater #1: Slot Firemen         Intercom call       Intercom       All         Impolite channel access       Impolite channel access	Task name	e: Scheduled	Task 1		
Load from file Record message Playback message Playback message Call Type Channel Call Target Private Call Auto Detect 125 Group Call Hand Repeater #1: Slot Firemen Intercom call Intercom All All All Impolite channel access	Command	Scheduler			
	Comma	nd: Send Vo	ice Message		•
Playback message         Call Type       Channel         Call Type       Channel         Private Call       Auto Detect       125         Group Call       Land Repeater #1: Slot       Firemen         Intercom call       Intercom       All         ✓       Add       X       Remove         Impolite channel access       Impolite mental access	🔊 Loa	ad from file			
Call Type       Channel       Call Target         Private Call       Auto Detect       125         Group Call       Land Repeater #1: Slot       Firemen         Intercom call       Intercom       All         Add       X Remove         Impolite channel access	Re Re	cord message			
Private Call     Auto Detect     125       Group Call     Last Repeater #1: Slot     Firemen       Intercom call     Intercom     All	🗐 <u>Pla</u>	<u>yback message</u>			
Group Call Hanne Repeater ≠1: Slot Firemen Intercom call Intercom All All All All Impolite channel access	Call Ty	pe	Channel	Call Target	
Intercom call Intercom All	Private	Call	Auto Detect	125	
Add X Remove Impolite channel access	Group	Call	Repeater #1: Slot	Firemen	
Impolite channel access	Interco	om call	Intercom	All	•
Impolite channel access					
Impolite channel access	- Ade	Remova			
OK Cancel	1 Impo	ne channel access			
				ОК	Cancel

## Load from file

Click this link to load an existing file from your PC.

Record Message

Click this link to record a new voice message.

Play back message

Click this link to play back the voice message.

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

Note: To send a Voice Message to a 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
	uled Task 1
Command Scheduler	
Start date:	01 October 2016
Stop date:	13 October 2016
Days of week:	Monday, Tuesday, Wednesday, Thursday, Friday 🔻
<ul> <li>Execute recurrently</li> </ul>	
Start time:	15:00
Stop time:	18:00
Repeat every:	01:00:00
C Execute at particular	r 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.

#### 6.4.5.12 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.



To enable the task, click **Tasks** (1), and double-click **SMS and Email notifications** (2) in the **Tasks** pane.

File View Map Tools Help						
Administration	Tasks					😫 🚳 🕒
Server  Server Server  Server  Server Serve	Group 10	0) * 0 0) * 0	≫ 1: Line free ✓ Group 20	0 # 0 # 0	Al Cal	) #0 )
Tasks 1	Add • 🕞 Edit	Lelete				Δ
Voice Dispatch	Dispatcher Preser					
Location Tracking	Geofencing					
Job Ticketing	Lone Worker 1      Mesages 1_Mess					
🥂 Route Management	P <sup>®</sup> Missed GPS data     Generation (     Generatio	(Sprite Forms)				
RFID Tracker	SMS and Email no	tifications				
Text Messages	User Activity Voice Message					
Voice Recording	Voice Message		2			
Event Viewer			-			
Radio Allocation						
Administration	HI 41 4 Record 10 of 1	14 + + + + 4				Þ
🔂 127.0.0.1 🛞 🥵 💆 Administrator 📑	Licensed to: demo Demo Li	icense				🕑 Active -

#### SMS settings tab

1S and Email	notifications		
SMS settings	Outgoing Email settings (SMTP)	Incoming Email settings	
Send St	1S to recipients if ALARM has bee	n activated	
	MS to recipients if ALARM has bee		
Forward Te	xt Messages to cell phone recipier	ats	
	essages (from radionetwork to di		
🗹 Output	messages (from dispatchers to ra	dionetwork)	
SMS Groups			
	,		
L			
			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 5.15.2, Outgoing Mail Server (page 91).



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**

MS and Email	notifications		
SMS settings	Outgoing Email settings (SMTP)	Incoming Email settings	
Send En	nail to recipients if ALARM has bee	n activated	
Forward Te	xt Messages to email recipients		
🗹 Input m	essages (from radionetwork to dis	patchers)	
Output	messages (from dispatchers to ra	dionetwork)	
Email Group	s		
L			
			OK Cano
			UN Carlo

• Send Email to recipients if ALARM has been activated Select this option to send an Email in case of alarm.

#### Forward Text Messages to email recipients

- Input messages (from radio network to dispatchers)
   Select this option to forward incoming text messages to Email address(es).
- Output messages (from dispatchers to radio network)
   Select this option to forward outgoing text messages to Email address(es).

#### **Incoming Email settings tab**

TRBOnet Server connects to POP3 server, reads emails and sends text messages to radios or talk groups.

- 1. Create an email account on your email server.
- Send an email to <u>radioserver@yourcompany.com</u>. In the **Subject** field, enter Radio ID: XXX to send an email to a selected radio, or **Group ID**: 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 **Radio ID**, 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.

#### 6.4.5.13 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.

• To enable the User Activity task, click **Tasks** (1), and double-click **User Activity** (2) in the **Tasks** pane:

Administration		Tasks					ê 🚯 🖸
		Tasks					
Server	î	Intercom		1: Line free		Al Cal	
📋 Database		Group 10		Group 20		Group 30	•) 📢 🥥
		Private Cal	• • 0				
		📑 Add 🗸 📑 Edit 🗐	k Delete				
📩 📩 Virtual Modbus Devices	~	Task Name					4
		🗆 🔚 Agenda					
Voice Dispatch		Dispatcher Preser					
		Export to SWD - I	ocation of radio				
Location Tracking		🗹 🍇 Geofencing					
-		V 🔅 Ide Time					
🚰 Job Ticketing		Section 2 S					
74		Mesages 1_Messa					
🝸 Route Management		🔛 🔍 Missed GPS data loading					
-		Radio Allocation (					
RFID Tracker		SMS and Email notifications					
		🗹 🎲 Timer					
Text Messages		🔽 🍪 User Activity 🔪					
A		Voice Message					
Voice Recording		🗹 🌯 Voice Message					
Event Viewer			$\sim$	2			
B Radio Allocation				-			
Administration		H4 44 4 Record 12 of 1	4 1 10 10 1				1
) 127.0.0.1 🛞 🕵 🙎 Administrate	r Etic	ensed to: demo Demo Li	cense				Active

## Lists of radios tab

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

• Click **Add** to add a list of radio activities:



User Acti	vity List Set	tings	×
General	Logical Gro	ups	
		[	_
Name:		User Activity # 1	
Descrip	otion:		
Backgr	ound:	🚯 Violet 💌 🔸 –	
Move a	a radio to this	s list if:	
🗹 Ma	nually (on de	emand of dispatcher)	
🗌 Au	tomatically b	y receiving Text Message from a radio	
Me	ssage:		
🗹 Au	tomatically b	y receiving Telemetry Command from a radio	
VIC	D:	1 Command: High level	
Au	tomatically b	y receiving DTMF command from subscriber	
Co	mmand:		
🗌 Au	tomatically b	y receive Status from subscriber	
Sta	atus:		
		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.

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	
Set the default status 10 💭 minutes	

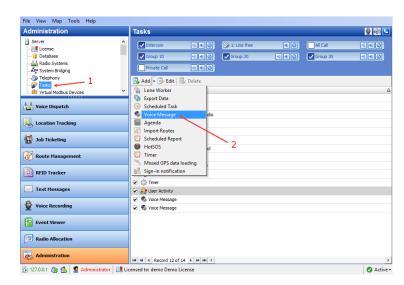
- Automatically set the default status for offline radios
- Select this option to allow assigning the default status for offline radios.
- Timeout

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

#### 6.4.5.14 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, select Tasks (1), and click Add > Voice Message (2).



The user can have several Voice Message policies for different purposes. Specify a name of the policy in the **Task name** box and set the policy's parameters.



#### **Task Start tab**

Voice Message	×
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
<ul> <li>Activated by</li> </ul>	any radio
Activated by	specific radios only
Radio:	125 (Pete), Walt
Send the follo	owing 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**

ask name:	Voice M	essage 1			
ask Start T	ask Process	Task Stop	Message	Telemetry	
C Send void	e message o	nce			
Send void	e message r	epeatable			
Repeat 1	Interval:	60	÷	second(s)	
🔽 Repe	at Count:	10	+		
🗌 Impolite d	hannel acces	s			
🗌 Delay on	start:	1	*	second(s)	

## • Send Voice Message once

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

#### • Send Voice Message repeatedly

Choose this option to send the voice message repeatedly.

#### Repeat Interval

Specify the repeat interval, in seconds.

Repeat Count

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

## • Impolite channel access

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

• Start delay

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

#### **Task Stop tab**

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



/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 Mes	sage 1				
Task Start Task	Process 1	Task Stop	Message	Tele	metry	
Load from f	<u>ìle</u>					
Record mes	sage					
🧐 <u>Playback m</u>	essage					
Call Type		Channel			Call Target	
Private Call	-	Auto Dete	ect		235	
Group Call		💾 Repe	ater #1: Slo	ot	Firemen	
🖶 Add 🗙 E	Remove					
				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.

## **Telemetry tab**

Voice Message		×
Task name:	Voice Message 1	
Task Start Ta	ask Process Task Stop Message Telemetry	
Send Tele	metry before starting task	
VIO:	1 Command: High level	
Delay aft	er send: 0 🖨 second(s)	
Send Tele	emetry after stopping task	
VIO:	1 Command: Toggle level	
Delay be	fore send: 0 🖨 second(s)	
Recipient:	Selected Radios: 1; Selected Radio Groups: 2	
Send Tele	emetry on every Voice Message	
	OK Cano	el



## • 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.

## 6.4.5.15 Scheduled Report

The Scheduled Report task allows reporting on selected parameters and sending these reports to selected Email subscribers groups. The user can have several Scheduled Report policies for different purposes.

Note: Before configuring the task, you need to create a number of the Email groups to send reports to. For more details on Email groups, see section <u>6.4.18</u>, <u>Email Groups</u> (page 232).

 To add a Scheduled Report task, select Tasks (1), and click Add > Scheduled Report (2):



File View Map Tools Help		
Administration	Tasks	ê 🐠 🔁
Server  Dotabase  Solid Systems  System Bridging	✔ Intercom         € (1) € (2)         1: Line free         € (2)         Al Cal           ✔ Group 10         € (1) € (2)         ✔ Group 20         € (2)         ✔ Group 30           Private Cal         € (2)	•) <b>4</b> :0
Telephony 1	Badd • Bett Bette     Cone Worker     Sport Data	Δ
Voice Dispatch	Scheduled Task     Voice Message     do     Agenda	
Job Ticketing	Import Routes     Scheduled Report     Heto's	
Route Management	Timer     Missed GPS data loading     Sign-in notification	
Text Messages	2 2 ∰ User Activity 2 ∰ User Activity 3 ∰ User Activity	
Voice Recording	✓     Ø     Vaice Message       ✓     Ø     Vaice Message	
Event Viewer	-	
Radio Allocation       Administration		
	Imit at a Record 12 of 14     Imit at a Record 12 of 14       Licensed to: demo Demo License	Active •

• Specify a name of the policy in the **Task name** box and set the policy parameters.

Fask name: Mesages 1				
Report Scheduler				
System reports	^			
		Select data by p	period:	
Unregistered Radios		Start Date:	19-Oct-2016 0:00	
GPS Status		End Date:	<maximum date=""></maximum>	
		Filter:		
Channel Change		Message Type:	All Messages	
Common reports		Radio System:	Not defined	
Messages for Period		Radio System:	Not defined	
State of Radios		Private From:	Not defined	
User Messages and Notes		Radio Group:	Not defined	
Radio Allocation				
Radio Disabling		Logical Group:	Not defined	
		Radio ID (e.g. 22,	22 40 55 99).	
Radio Users by Channel		Kaulo ID (E.g. 22,	33,40-33,88).	
State of Radios Summary				
Lone Worker Activity		Find Text:		
CAN graphics				
CAN messages		Print notes		
Job Ticketing		Print coordinate	S	
Change Job Status		Show street na	mes	
Job Ticket Assignments				
Eul Movement Details	~	Internet access:	Server	

 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 7.3.7, Reports (page 341).

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



Scheduled Report			×
Task name: Mesag	jes 1		
Report Scheduler			
Start date:	26 October 2016		•
Stop date:	27 October 2016		•
Days of week:	Monday, Tuesday, Wednesday, Thursday, Friday, Saturda	y, Sunday	•
Start time:	8:00		
Statistic period:	1 + Hours	•	
Email groups:	Police dep		
Check		ОК	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	🔮 🐠 🕒
Server A	✓ Intercom         0.1.00         >>>>>>>>>>>>>>>>>>>>>>>>>>>>	•) <b>•</b> Ø
- Sy Telephony - Sy Tasks - Virtual Modbus Devices	Add -      Edit      Delete     Task Name     Delete     Delete     Delete	Δ
Voice Dispatch	Panda     Suspatcher Presence Control     Stopart SWD - Location of radio	
Location Tracking	September 2015 11111 1111111111111111111111111111	
🚰 Job Ticketing	Reference Contraction Contract	
📝 Route Management	Compared Period     Provide Compared Period	
RFID Tracker	Orman (Sprite Forms)     Scheduled Report 1_Messages for Period_26-Nov-2016 00:00:00	
C Text Messages	Image: SMS and Email noblications       Image: Optimized State	
🔮 Voice Recording	☑     ②     Øser Activity       ☑     Øser Message	
Event Viewer	Voice Message	
년 Radio Allocation		
Administration	₩ ₩ 4 Record 10 of 15 ► ₩ ₩ 4	•
🔁 127.0.0.1 🛞 🛋 🖉 Administrator 🗔 💷 Lie	sensed to dome Dome License	O Antina a

To enable the task, select the check box in front of the Scheduled Report task you have already created.

There are three types of the Scheduled Report status icons:

- Green indicates an active task, meaning the task is enabled (checked).
- Grey indicates an inactive task, meaning the task is disabled (unchecked).
- Red indicates a disabled task, meaning the task period is up in the past.

#### 6.4.5.16 HotSOS (Email)

The **HotSOS (Email)** task is used to automatically create and assign job tickets upon receiving email messages at the address specified for the radio (**Radio > Additional > Email**). In addition, you specify the email address at which to receive email messages about changes to the created ticket status.

- Go to Administration, Tasks.
- In the Tasks pane, click Add > HotSOS (Email).
- In the dialog box, specify the following parameters:

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

Name

Enter a name for the task.



#### Email

Enter the email address at which you want to receive notifications concerning the status of the created tickets.

Source

From the drop-down list, select which part of the email message, Subject or Body, will be included in the job ticket text.

HotSOS Status

Enter the text of the emails that will be sent as notifications upon changes to the job ticket status.

#### 6.4.5.17 HotSOS (Web Service)

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

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

HotSOS Configu	ration 2	×
Name:	HotSOS	
URL:	https://ifc.int.hot-sos.net/api/service.svc/soap	
Login:	Tester 123	]
Password:	******	
Provider:	MOTOTRBO	1
Polling Interval:	15 🜩 seconds	
Message Format:	%TEXT%%PRIORITY%%ORDER_ID% Text Priority Room Name Room Number Remark Order ID Message ID	
Status	HotSOS Status	1
New	N	1
Cancelled	Ca	1
Assigned	Ass	
Accepted	Acc —	1
Rejected	R	i.
Completed	r 💌	1
	OK Cancel	

Name

Enter a name for the task.

URL

Enter the URL of the service.

Login and Password

Enter the login and password of the service account.

Provider

Enter the service provider name.

#### Polling Interval

Enter the interval, in seconds, to check the service for orders (job tickets).



## 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 HotSOS 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.

- Go to Administration, Tasks (1).
- In the Tasks pane, click Add > Automatic Data Retrieval (Swift GPS) (2).

File View Map Tools Help		
Administration	Tasks	😫 📣 🛄
Server	It is free         Image         Image	3
Virtual Modbus Devices	Ad - Dete Ad - Dete Ad - Detee  Cone Worker  Cone Worker  Cone Worker  Cone Works  Cone Morsage  Recorder  Recorder	۵
Uoice Dispatch	Agenda     Jimport beacon data from DB "Firebird"     Import Routes     Monor Phone Addresses (NENA)	
30b Ticketing	Scheduled Report HotSOS (Email)	
Route Management	HotSOS (Web Service)	
Text Messages	Automatic Data Retrieval (Swift GPS) Automatic Voice Download (Swift) Sign-in notification	
🔮 Voice Recording	2	
Reports		
Radio Allocation           Administration	[44] 44 ] Record 1 of 11 ] ▶ ] ₩ ] ₩ ] 4	
🚯 Connected 🛞 🅵 🕵	ministrator 📑 Licensed to: demo Demo License	🕑 Active -

• In the dialog box, specify the following parameters:

Automatic Data Ret	rieval (Swift GPS)		Х
Task name:	Automatic Data Retrieval (Swift GPS)		
General Radios			
Maximum numbe	r of simultaneous requests:	3 🔹	
Data upload			
Retrieve missing	locations if the data gap exceeds:	30 🔹 seconds	
Do not retrieve m	issing locations older than:	30 🔶 minutes	•
		OK Can	cel

#### 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 list of tasks, 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.

- Go to Administration, Tasks.
- In the Tasks pane, click Add > Automatic Voice Download (Swift).

ladios			
		1	3
c:/			
	number of simultaneous requests: c:\ DD%\%YEAR%_%MONTH%_%DAY%_%HOUF	number of simultaneous requests: [e:\ 	number of simultaneous requests: [c:\ 

- 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 list of tasks, activate the **Automatic Voice Download (Swift)** task by selecting the check box next to the task name.

## 6.4.6 Modbus TCP Connections

TRBOnet Server can receive and send data from/to Modbus hardware and interact with Modbus data according to desired scenarios. There are two connection modes between TRBOnet Server and Modbus hardware: Master and Slave.



To connect TRBOnet Server to Modbus hardware:

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

File View Map Tools Help					
Administration	Modbus				👲 🐠 🛂
- Hadio Systems ^ - System Bridging 2 - Telephony 2 - Tasks - Modbus TCP Connections	<ul> <li>I: Line free</li> <li>disp 15</li> <li>Slot 2</li> </ul>		Interce	m	•) <b>•:</b> ()
Virtual Modbus Devices	🛃 Add 🌗 Edit 📑 D				
< >		IP Address	Port	Slave ID	Behavior
I have been as		192.168.77.10	502		
Voice Dispatch	ModBus2 Slave		502	1	Custom
Location Tracking					
30b Ticketing	3				
Route Management					
Radio Allocation	1				
Administration	144 44 4 Record 1 of 2 🕨	• • • •			Þ
🐻 127.0.0.1 🛞 🕵 🕵 🙎 🗛	ministrator 🛛 📑 Licensed t	o: demo Demo	License		🕑 Active 🗸

• 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.

Name:	ModBus_Master
Mode:	Master
Remote Address:	10.10.168.20
Port:	502
ID:	1
	Parallel Requests

## ✓ Parallel Requests

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



## 6.4.7 Virtual Modbus Devices

Once you have created the appropriate TCP connection, you can add a Modbus device:

• Go to Administration, Virtual Modbus Devices, and click Add.

Virtual Modbus [	Device				$\times$
Name:	PLC1				
Description:	[				_
Description.					
Configuration:	ModBus2				
coniguration.	Moubusz				-
Table:	DiscreteInput	ls			•
	Address		Value		
					•
		1		1	
		2		0	
		3		1	
		4		0 🗘	
		5		0	
		6		0	
		7		0	
	~	8		Edit Filt	-
	•			Calt Pit	
		_	011		
			OK	Cancel	

In the Virtual Modbus Device dialog box, specify the following parameters:

Name

Enter a name of the device.

Description

Enter a 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.

## 6.4.8 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:

	>
Name:	
Camera 1	
Description:	
Disposal dump	
JRI:	
rtsp://10.10.102.243:554/	
Protocol:	
UDP  Authorization	
UDP 💌	
UDP  Authorization	
UDP   Authorization User:	
Authorization	OK Capel



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.

## 6.4.9 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	👲 🐠 🕒
Gerver		) E0
Virtual Modbus Devices	Add Date Create a Copy Clette  Add To Create a Copy Clette  Hen Event  S Send Tot	Δ
Location Tracking	3	
Boute Management		
RFID Tracker		
Text Messages		
Voice Recording		
Radio Allocation	1	
Administration	H4 44 4 Record 2 of 2 > >> >> 4	Þ
🔂 127.0.0.1 🛞 🕵 🙎 Administrator 📑 Li	icensed to: demo Demo License	🕑 Active -

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

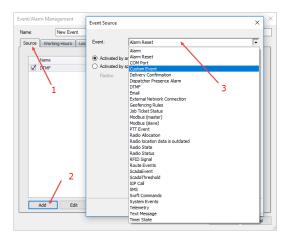


Note: The administrator can also create a copy of the existing Event/Alarm Management rule. Select a rule in the list and click the **Create a Copy** button. The system will create a copy of the rule with the same configuration parameters.

## Name

Enter a name for the rule.

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



## Event

From the drop-down list (3), select the event type to set for the rule.

For a description of the event types, see *TRBOnet Enterprise/PLUS Alarm Management User Guide*.

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

Name:	New Ev	vent	
Source	Working Hours	s Location Action	
	Name	Description	
	Text Message	Active Radios: All; Text: ;	
$\checkmark$	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.

Event/Alarm Management	×
Name: New Event Source Working Hours	Location Action
Enable     Radio Location: Inside Reg	
All Regions     Selected Regions	gions 🔽
Region Region 2 Region_1 wq	/
	Select All
	OK Cancel

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

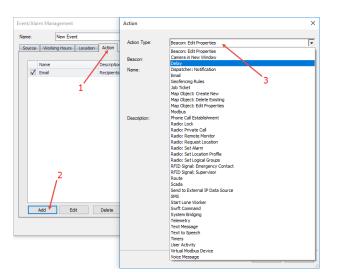
In the list, select the region(s).

• 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 M	anagement				👲 🚳 🔽
Server	A Intercom		1: Line free	•0	Al Cal	
📋 Database	Group 10		Group 20		Group 30	
- 🔛 Radio Systems	Private Cal					
			3.4.1			
🐺 Tasks	📑 Add 📑 Edit 🛽	Create a Copy	🔆 Delete			
Virtual Modbus Devices	Name New Event					
	Send DTMF					
Voice Dispatch						
Location Tracking						
🙀 Job Ticketing						
B Sob Tickeding						
🥂 Route Management						
-						
RFID Tracker						
Text Messages						
,,						
🔮 Voice Recording						
Event Viewer						
1 Radio Allocation						
Administration	H4 44 4 Record 2 of	2 1 10 101 4				
访 127.0.0.1 🛞 🕵 🙎 Administrator 📗	Licensed to: demo Demo					Active

## 6.4.10 Telemetry

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

## 6.4.10.1 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 config	uration				😫 🕪 🕒
Teleshony Taks Vital Modus Devices Vital Modus Vital Vita	Intercom Group 10 Private Cal Edit Telemetry Type:	0) 4:0 0) 4:0 0) 4:0	I: Line free Group 20	0 20	Al Cal	) <b>.</b>
Voice Dispatch	Radio Groups Te					
Location Tracking	<ul> <li>VIO2: VIO2:</li> <li>VIO3: VIO3:</li> </ul>	- High level (High le High level (High le High level (High le	vel) vel)			
💓 Route Management		High level (High le High level (High le				
RFID Tracker						
C Text Messages						
🔮 Voice Recording						
Event Viewer						
Radio Allocation						
Administration	icenred to: demo Demo Li	capra				Active -

Felemetry Type:	MOTOTRBO	
Profile 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	VIO5: High level	High level
Description ID: Name: Command:	VIO1  VIO1 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Αρρίγ

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

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

## 6.4.10.2 Adding Telemetry Profile for Radios

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



File View Map Tools Help		
Administration	Telemetry configuration	😫 🐠 🔽
Telephony Tada Vital Modus Devices Vital Modu	Croup 10 0 € (C)     Croup 20 0 € (C)     Croup 30     Private Cal 0 € (C)     Add    Edit    Collete	9) 46 (7) 9) 46 (7)
Voice Dispatch	Telemetry Type: MOTOTRBO Auto refresh inputs: Disabled	
Location Tracking	Digital Inputs         Generative WK1 (High level)           3         4 VI0:1: Telemetry WK2 (High level)           4 VI0:2: Telemetry WK2 (High level)	
🟰 Job Ticketing	VIO3: Telemetry VK3 (high level) VIO4: Telemetry VK4 (high level)	
😥 Route Management	VIOS: Telemetry VK5 (High level) Digital Outputs	
RFID Tracker	③ VIOS: VIOS: Low level (Low level)	
Contemporary Text Messages		
🔮 Voice Recording		
Event Viewer		
8 Radio Allocation	1	
Administration		
🔂 127.0.0.1 🛞 🕵 💆 Administrator 📑 Li	censed to: demo Demo License	🕑 Active -

Telemetry Profile	×
Telemetry type:	MOTOTRBO
Profile name:	
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

Specify a name of the profile to display in the Dispatch Console.

Click OK.

Telemetry #1		×
Telemetry Type:	MOTOTRBO	
Profile Name:	Telemetry #1	
Common Digital	Inputs Digital Outputs	
Request i		
Trace digi		
Trace and		
	state event to VIO events	
RFID		
	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.

## **Digital Inputs tab**

elemetry Type:	MOTOTRBO	D	
rofile Name:	Telemetry	#1	
Common Digital	Inputs Digita	al Outputs	
ID	Name	Event	
VIO1	③ VIO1	High level	
VIO2	<li>VIO2</li>	High level	1
ID: Name:	VIO2	×	
Name: Reset Name:			
Name:	VIO2 High lev	/el 🔽	
Name: Reset Name: Event: Severity: Imisplay as so	High lev A Wa	vel 💌	
Name: Reset Name: Event: Severity:	High lev A Wa ubscriber state	vel 🔽	Apply
Name: Reset Name: Event: Severity: Display as s Auto reset s	High lev A Wa ubscriber state	vel 💌 rning 📜	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.

Note: Most of the policies are set to replace events, so it is recommended to enable this option.



#### Display as subscriber state

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

#### Auto reset state

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

#### Request location of subscriber

Select this option to request a GPS position of the radio after it sends the telemetry command.

Click **Apply** to apply settings to selected inputs.

## **Digital Outputs tab**

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

- 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.

## 6.4.11 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	0			
Administration	Location Profile			🔮 🐠 😉
Swift Commands Profiles	A Sales	✓ Intercom •)) • ⊘	Maintenace	0
Location Profile     Location Profile     Mobile Cleant Profile     X Tools     Disabled Radios	Group 20         •)        •(         Ø         Group 22         •)        •(         Ø         Group 22         •)         •(         Ø	All Call 9) 4: 0 Private Call 9) 4: 0	Group 11	
Disastebar Orauna	🖌 🛃 Add 🌛 Edit   🖳 Delete			
Voice Dispatch	Profile type: MOTOTRBO			
Location Tracking	Manage trigger manually: Channel type:	Yes Non-scheduled (Regular GPS over 1	Voice or Data Revert Chann	nel)
🔡 Job Ticketing	Location priority: GPS data:	GPS Latitude, Longitude, Direction, Spee		
Route Management	iBeacon data: Fast GPS on Connect Plus systems:	1 iBeacon: Major, Minor No		
V Text Messages	Periodic Trigger:	Interval 30.0 sec		
Reports	Distance Trigger: Telemetry Trigger:	No No		
Event Viewer	Emergency Trigger:	No	*	
Radio Allocation			$\backslash_3$	
Administration 🔶	1		<u> </u>	
🐻 127.0.0.1 🛞 🥵 🕵 🧕	dministrator 🛛 📑 Licensed to: demo Demo I	License		Active

There is a default Location Profile that the administrator can use and edit. The administrator can do the following:

- 1. Use default location profile.
- 2. Create a custom location profile: **Add** button.
- 3. Edit a profile: **Edit** button.

Note: In the default profile, the **Name** and **Description** cannot be changed.

## **6.4.11.1 Adding a Location Profile**

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



## Profile type

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

## Profile name

Enter a 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):

File View Map Tools	Help								
Administration		Registered r	adio grou	os and rad	lios				ê 🚳 🔽
SMS Groups Users Logical Groups Radio Groups	- 2	Intercom	: Slot #1 •))		Group 1 Repeater #1: Sk	•)) ब( ( ot #2 •)) ब( (			) <b>4</b> 0
Voice Dispatch		Registered		OTRBO Radio	Add WAVE	Radio 🔜 Ad	d TRBOnet Mo	bile 📑 Edit	**
GPS Positioning		Callsign ∆	Type MOTOTRBO	Radio ID 125	MDC / Sel-5 0			Logical Groups	Description
bob Ticketing		235	MOTOTRBO	235	0	2235	Firemen		
Route Management								3	
RFID Tracker									
Text Messages									
Voice Recording									
Reports									
Event Viewer									
Radio Allocation		1							
Administration	-	HI 41 4 Record	Lof2 ⊧ ⊮ ⊮	1 4					Þ
127.0.0.1 🛞 🕵 🥵	🙎 Administrator 🛛 📑 Lic	ensed to: demo Der	no License						🕑 Active -

eneral Logical Grou	ps Additional SIP Call Cameras		
Callsign:	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 V		
Location Profile:	(Default) V +		
	(Default)		
Telemetry Servi	Cc		
TLM Source:	Built-in Telemetry		C.
TLM Profile:	(Default) V +		
Text Messages	Service		
TMS Tuper Hide Advanced Set	Standard		Y

- 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**.

## 6.4.12 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>6.4.23.2</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.

## 6.4.12.1 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	#1				;	×		
Profile Name:	Mobile Client Profile #1							
Use GPS location								
Trigger interval:		30 🗘	seconds					
Use Indoor location								
Trigger interval:		30	seconds					
Number of iBeac	ons:	1						
iBeacons filter:						_		
a8934da6-4fa2	498-8024	bc5b71e5278f				1900 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 -		
Add 🗙 Del	<u>ete</u>			OK	≪ <u>Clear</u> Cancel			

## 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 **Add** link and enter the UUID of the beacons that will be used by the mobile client.

Note: If you don't specify the **iBeacon UUID**, the Mobile Client app running on an iOS device won't detect any iBeacons.



## 6.4.13 Tools

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

#### 6.4.13.1 Swift.Tracker Configuration Tool

Note: This tool is available only for TRBOnet Swift.Tracker v1.0

In general, a MOTOTRBO<sup>™</sup> portable radio comes with a standard option board factory-installed in the radio.

The Generic Option Board replaces this standard option board and newer radios (for example, XPR 7550) are now manufactured with Generic Option Boards already installed. Generic Option Boards can be flashed with custom firmware to provide additional functionality: Man Down, No Movement, Crash Detect, Lone Worker and event-driven GPS functionality.

The Event-driven GPS feature provides a method to collect GPS data more frequently and to store and forward this GPS data by event. The feature also allows collecting and storing GPS data while the radio is out of coverage, and, upon request, provide the GPS data when the radio is back in coverage.

Go to **Administration** (1), **Tools**, **Swift.Tracker Configuration Tool** (2) to manage Swift Tracker settings:

Administration		Swift.Tracker	Configuration	Tool		👲 🐠
Telemetry #1	^	1: Line free	• 0	✓ Intercom	•) • Ø	
😠 🚰 GPS Profile		Group 10		All Call		
- X Tools	ration Tool	Group 20		Group 11	•) • Ø	
Templates		Group 22		Private Call	•) • Ø	
Indoor 2D Map Conve 		💫 Add 🌛 Edit 🛛	💃 Delete 🛛 🐷 Clor	ie 🧀 Export 🔄 In	nport	
			Description			Version
	(	Configuration 1				1
Location Tracking		2				
💦 Route Management						
🖂 Text Messages						
Reports						
🔞 Radio Allocation		1				

Click Add (3) to add a configuration for Swift Tracker.

• Name

Specify a name for the configuration to apply to a radio or a group of radios.

• Description

Add a description for the configuration.

## • Set Defaults

Click this button to enable default settings.



• Import

Click this button to import the Swift Tracker configuration from a file (\*.sfc).

• Export

Click this button to save the Swift Tracker configuration as a file (\*.sfc) to the PC.

On the **General** tab, set general settings for Swift Tracker:

Name:	Configuration 1					
Description: General GP	5 Tracker Tasks					
Module	5					
Enable G	iPS Tracker		$\checkmark$			
Enable "	No Movement"					
Enable "	Man Down"					
Enable "	Crash Detect"					
Enable "	Lone Worker"					
Genera	Report					
Number	of Retries:		3	÷		
Retry De	lay (sec):		15	-		
Radio	Settings					
Network	Radio ID (CAI ID):		13	•		
Target R	adio ID:		64250	\$		
Port:			4004	-		
Automati	cally Switch to Revert Channel:		$\checkmark$			
Set Defau	lts Export	Import		ОК	Cancel	

### Modules

• Enable GPS Tracker

When the check box is selected, the GPS enabled radio will send its data to TRBOnet Server according to its Generic Option Board (GOB) settings.

- Enable "No Movement" Select to enable No Movement feature.
- Enable "Man Down" Select to enable Man Down feature.
- Enable "Crash Detect" Select to enable Crash Detect feature.
- Enable "Lone Worker" Select to enable Lone Worker feature.

## **General Report**

#### • Number of Retries

Specify the number of additional attempts to send GPS data to TRBOnet Server if the initial transmission fails. If the channel is busy, as data transfer is a high priority, then the Transmit Interrupt feature will automatically be enabled.

## • Retry Delay

Select the time period between data transfer retries.



#### **Radio Settings**

#### • Network radio ID (CAI ID)

Select the TRBOnet Server ID. ID = 13 is the default ID to route packets to TRBOnet Server. (An ID = 12 will route packets to a control station.)

#### • Target Radio ID

Select the target Radio ID for data transfer. In the case of a direct connection to the repeater, select the TRBOnet Server ID (TRBOnet Peer ID).

• Port

Select the port number for data transfer.

• Automatically Switch to Revert Channel

Select this option to automatically transfer data via the revert channel.

Note: If the radio does not have a revert channel, this option must be disabled.

On the **GPS Tracker** tab, set GPS Tracker settings:

eneral GPS Tra				
	cker Tasks			
GOB Data	Storage			
Save GPS da	ta on passing distance every (m)	50	-	
Adding Dat	a to Report			
Speed and Di	rection:	$\checkmark$		
Add Data to F	Report every (m)	250	-	
Minimal Direct	ion Angle (*)	14	-	
Add Data To	Report every (sec):	6000	-	
Report Tran	nsmit Conditions			
Report Period	(sec):	120	•	
Passed Distar	nce is more than (m)	1000	-	
Speed Excee		120	•	
Stop/Idle Tim	e is more than (sec)	300	-	

#### **GOB Data Storage**

• Save GPS data on passing distance every (m)

Specify the distance a radio will travel before it saves its GPS data to the Generic Option Board's memory; the data is not added to the report.

#### Adding Data to Report

- Speed and Direction
   Select this option to add speed and direction information to the report.
- Add Data to Report every (m)

Specify the distance a radio will travel before it adds its GPS data to the report. The report will be sent to TRBOnet Server at the selected time (see the **Report Period** option).



Note: The distance traveled before adding data to the report must exceed (greater than) the distance traveled before saving the data to the GOB.

## • Minimal Direction Angle

Select the minimum direction angle to add data to the report automatically (if the radio reverses the direction, the current data will be added to the report automatically, and the next data recording will be started).

## • Add Data to Report every (sec.)

Specify the time period for the report. When the indicated time period is passed, the radio adds data to the report.

## **Report Transmit Conditions**

• Report period (sec.)

Select the time interval between the sending of GPS data to TRBOnet Server.

## • Passed distance is more than (m)

specify the distance a radio will travel before it sends its GPS data report type in the distance. When the indicated distance is passed the Option Board sends the report.

Note: The distance traveled before adding data to the report must exceed (greater than) the distance traveled before saving the data to the GOB.

## • Speed exceeds

Specify the maximum speed. If the current speed is greater than the specified one, the radio will send data to TRBOnet Server.

#### • Stop/Idle Time is more than (sec.)

Select the stop/idle time. When the stop/idle time is greater than the indicated one, the radio sends data to TRBOnet Server.

On the **Tasks** tab, set Man Down, No Movement, Lone Worker, and Crash Detect settings:



2:	Configuration 1			_	-
ription:					 _
eral GPS	Tracker Tasks				
Genera	he accelerometer on the radio switching on				
	lam by button click				
	own" Settings				
	n Angle (*):	60	•		
	(1) Timeout (sec):	10	•		
	Tone (1):	RingStyleTone1	~		
"No Mo	vement" Settings				
	Threshold (%)	15	-		
First Pre-	Alam Timeout (sec):	30	•		
First Pre-	Nam Tone:	RingStyleTone1	$\sim$		
"Lone \	Vorker" Settings				
Timeout	(sec):	1800	*		
Pre-Alam	Tone:	RingStyleTone4	$\sim$		
Conned	Pre-Alarm Notification				
Timeout		5	•		
Pre-Alam		TalkProhibit	~		
Volume L	evel Increase (%):	50	÷		
Pre-Alam	Tone Duration (sec):	5	÷		
"Crash	Detect" Settings				
Crash Th	reshold (g):	8	-		
Moveme	nt Stop Timeout (sec):	10			
No Move	ment Timeout (sec):	15	•		
Emerge	ncy Call				
TRBOne	Emergency timeout (sec)	10			
мототи	RBO Emergency timeout (sec)	10	-		
Sound	notification after emergency call				
Timeout	(sec):	0	-		
Tone:		RingStyleTone4	$\sim$		

#### General

- Activate the accelerometer on the radio switching on Select this option so that the accelerometer is enabled when the radio is turned on.
- **Disable alarm by button click** Select this option to enable the radio to turn off the alarm notification by pressing any button on the radio.

## "Man Down" Settings

- Activation angle select activation angle to enable Man Down feature;
- **Pre-Alarm (1) Timeout (sec.)** select time period preceding pre-alarm Tone 1;
- **Pre-Alarm tone (1)** select pre-alarm tone. All pre-alarm tones can be found in radio's codeplug configuration.

#### "No Movement" Settings

- Vibration Threshold (%) select max. vibration threshold for No Movement feature;
- Pre-Alarm Timeout (sec.) select time period preceding pre-alarm Tone 1;
- **Pre-Alarm tone** select pre-alarm tone. All pre-alarm tones can be found in radio's codeplug configuration.



## "Lone Worker" Settings

- Timeout (sec.) select time period to enable Lone Worker alarm;
- **Pre-alarm tone** select pre-alarm tone. All pre-alarm tones can be found in radio's codeplug configuration;

## **Second Pre-Alarm Notification**

When pre-alarm tone (1) activates for **Man Down**, **No Movement** and **Lone Worker**, and there was no user's activity (the radio remains unchanged), the second pre-alarm tone activates:

- Timeout (sec.) select time period preceding pre-alarm Tone 2;
- **Pre-Alarm tone** select pre-alarm tone. All pre-alarm tones can be found in radio's codeplug configuration;
- **Volume Level Increase (%)** select the percentage of the Volume Level Increase for pre-alarm Tone 2;
- Pre-Alarm Duration (sec.) select pre-alarm Tone 2 duration.

## "Crash Detect" Settings

- **Crash Threshold (g)** select acceleration changing value to enable Crash Detect alarm notification;
- **Movement Stop Timeout** select the time period of movement stop to enable Crash Detect alarm notification;
- **No Movement Timeout** select the time period of the radio without any movement to enable Crash Detect alarm notification;

#### **Emergency call**

- TRBOnet Emergency Timeout (sec.) select time period preceding emergency tone to the Dispatch Console for Man Down, No Movement and Lone Worker options;
- **MOTOTRBO Emergency timeout (sec.)** select time period preceding emergency tone to the Dispatch Console.

Note: **MOTOTRBO Emergency Alarm** should be set in radio's codeplug.

#### Sound notification after emergency call

- **Timeout (sec.)** select time period to repeat the alarm notification. To stop the alarm notification Dispatcher should disable alarm notification;
- **Tone** select the notification tone. All tones can be found in radio's codeplug configuration.



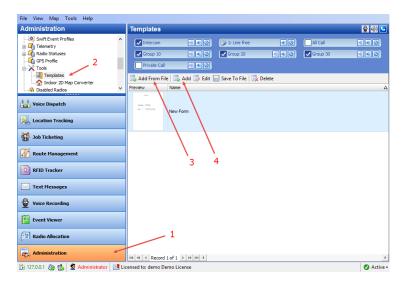
#### 6.4.13.2 Templates for Extended Messages

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), 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>.

## 6.4.13.3 Indoor 2D Map Converter

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

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

File View Map Tools Help			
Administration		Indoor 2D Map Converter	🔮 🜒 🔽
Radio Statuses     GPS Profile     Tools     Tools     If Templates     Tools Dap Converter     Disabled Radios	^		) = 0 ) = 0
Dispatcher Groups 2	¥	Name: Floorplan 1	
Voice Dispatch		Image: D:\Images\RoomSketcher-2D-Floor-Plans.jpg	
Location Tracking		Directory: D:\Images\Bmaps	
Route Management		Start	
RFID Tracker			
Text Messages			
🔮 Voice Recording			
Event Viewer			
Administration	+	1	
🔂 127.0.0.1 🍖 🔥 🙎 Administrator	E Lie	ensed to: demo Demo License	Active

• 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		
	tillininiti							
					-			
	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.

## 6.4.14 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	🔮 🐠 🔽
	Scheduler Scheduler Sales C C C Concentration C C C C C C C C C C C C C C C C C C C	
Radio Allocation		
administration 🖌	HI 4 + > >> HI 4	Þ
🔂 Connected 🍇 🕵 🕵 🕵	Administrator 🔣 Licensed to: demo Demo License	🕑 Active -

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

Name

Enter a 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.



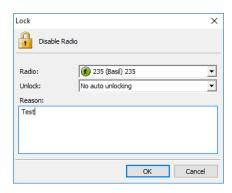
## 6.4.15 Disabled Radios

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>6.4.17</u>, <u>Dispatchers</u> on page 226).
- Go to Administration (1), Disabled Radios (2) to disable selected radio:

File View Map Tools Help						
Administration	Disabled Radios	3				🔮 🐠 🕒
Swift Event Profiles  Gamma Telemetry  Gamma Telemetry  Gamma Telemetry  Gamma Telemetry  Telemetry  Tools  Tools	Group 10	*** *** **	② 1: Line free ✓ Group 20	4:0 •) 4:0	Al Cal	) <b>#</b> 0 ) <b>#</b> 0
Disabled Radios Dispatcher Groups Dispatchers 2 Email Groups	Disable Radio     Radio     125     235	△ Disable 21-Nov		Reason		
Location Tracking		3	4			
😸 Job Ticketing						
RFID Tracker	_					
Voice Recording						
Event Viewer	1					
Administration	HI 41 4 Record 2 of 2	▶ ₩ ₩ 4				Þ
🚺 127.0.0.1 🍓 🕵 🧕 Administrator 📑 L	Licensed to: demo Demo L	icense				🕑 Active -

• Click **Disable Radio** (3) and in the dialog box that appears:



#### Radio

Select a radio from the drop-down list.

Unlock

Select the time period after which the radio will be unlocked.

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
1	
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.

# 6.4.15.1 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.

## 6.4.16 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 Dis	patchers				👲 🕪 🕒
Andro Statuses     GrS Profile     Tools     Sabeled Radios     Dispatcher Groups     Dispatchers     2	<ul> <li>I: Line free</li> <li>Al Call</li> <li>Group 22</li> <li>Sales</li> </ul>	0 0 0 0 0 0 0 0 0	Intercom Group 20 Private Call	) #0 1) #0 1) #0	Group 10	9) 4:0
Voice Dispatch		k Delete → Badio ID	uping 🍸 Auto Filter SIP ID	Default Settin Descript		
Location Tracking	Maintenace Sales	60400 60500	60400 60500			
😸 Job Ticketing						
💓 Route Management		3				
RFID Tracker						
C Text Messages						
Voice Recording						
Event Viewer						
Radio Allocation	_1					
administration	H4 44 4 Record 1 of	2 1 10 10 10				<u>+</u>
访 127.0.0.1 🚷 🕵 💆 Administrate	or 🔄 Licensed to: de	mo				🕑 Active -



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

Dispatcher	Group		$\times$
General	Call Group	Request To Talk	
Name:	Ma	intenace	
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		Х
General	Call Group	Request To Talk	
Radio I	D:	60400	
Phone	e Call		
SIP II	):	60400	
SIP N	ame:	Maintenance	
Passv	vord:	******	
		OK Cancel	

• 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	o Talk		
🗹 AI	utomatically b	by receiving	Text Message fi	om a radio	
м	essage:	60400			
🗹 AI	utomatically b	by receiving	Telemetry Com	nand from a radio	
VI	0:	1 🜲	Command:	Any event	-
🗹 AI	utomatically b	by receiving l	DTMF command	from a radio	
C	ommand:	60400		#60400#	
Ai	utomatically b	by receiving	Status from a ra	idio	
St	atus:	0			

- 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.



# 6.4.17 Dispatchers

The administrator can add, edit, and delete dispatchers in the system. Go to **Administration** (1), **Dispatchers** (2) to work with dispatchers:

File View Map Tools Help								
Administration	Registered Dis	patchers						🔮 🚳 (
Indoor 2D Map Convert A	1: Line free	•0	Intercom		Maintenace		Sales	
🔒 Disabled Radios	Group 10		disp		EMERGENCY GROUP		Regular GGRO	JP 🔊 🕷 🥝
- Spatcher Groups	Slot 1		Group 20		Slot 2		Al Cal	
	Group 11		Group 22		Group 1		Private Cal	•) < 🕗
SMS Groups 2	Dispatchers Role	15						
Logical Groups	🛃 Add 🔹 📑 Edit	🛃 Delete 📑 G	irouping 🍸 A	uto Filter 🌼 Default Set	tings			
Radio Groune V	User Name	∆ Role		Display Name	Radio ID	SIP ID	E	lescription
	🖓 Disp 1	Dispatcher		Dispatcher 1	60100	60100		
Voice Dispatch	R Disp 2	Dispatcher		Dispatcher 2	60200	60200		
	🦷 ivan	Dispatcher		ivan	25			
Location Tracking		$\backslash$						
😸 Job Ticketing		3						
💓 Route Management								
Text Messages								
🔮 Voice Recording								
Reports								
Radio Allocation								
administration 🔶	HI 44 4 Record 1 of 3	3 1 14 141 4						
🐻 Connected 🛞 🕵 🔂 🔂	🔒 🕵 🦉 Administrate	or 📑 Licensed t	o: demo Demo	License				🕑 Activ

• Click Add (3) to add a dispatcher.

General	Dispatcher Rights	Radio Systems	Radio Groups	Dispatcher Grou
Authen	tication:	TRBOnet Authen	tication	~
User Na	ame:	Dispatcher 1		
Passwo	rd :	******		
Repeat	password:	******		
Display	Name:	Dispatcher 1		
Descrip	tion:			
Dispato	her Role:	Dispatcher		•
🗌 Inv	isible to all other use	ers		
🗌 Inv	isible to all except th	ne assigned group	S	
🗌 Alla	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>6.4.20</u>, <u>Users</u> (page 234).

#### 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.

Dispatcher				×
General Dispatcher Righ	ts Radio Systems	Radio Groups	Dispatcher Gr	ou 🔸 🕨
Available Modules:	(All Modes)		•	^
Voice Dispatch Funct Use the Voice Dispat Telephone calls Telephone calls Telephone calls View all other voice Change control stat Configure audio Tone and PTT Save and export rec View System Bridge, Fieldel/disable?	tch module ia the SIP 2.0 phone calls led voice communica calls in addition to as on channels corded voice commun Patch	ations ssigned groups		
Enable/disable encry     Allow Call Preemptio     Application     Customize user inter	n Mode for:	30	minute	s V
		OK	Ca	ancel



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

Dispatcher					×
General	Dispatcher Rights	Radio Systems	Radio Groups	Logical Groups	• •
0.4	Radio Systems avai	lable			
-	ly selected Radio S				
	Radio System			TX	
	Control Station #				
	- ·				
	Repeater #1: Slo	t #2		<b>v</b>	
Ch	eck 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 of 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.

lispatcher				×
Radio Systems	Radio Groups	Dispatcher Groups	Logical Groups	Dispatch • •
All groups	are available			
Only sele	cted groups are	available		
Name		Description		
	Cleaning Cleaning 1		Department 1	
	Security	Groups for S	Security	
L	Security 2			
Select All	Deselect All			
			OK	Cancel

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



ispatcher					>
Dispatcher	Rights	Radio Systems	Radio Groups	Dispatcher Groups	Logic • •
🔿 All gr	roups ar	e available			
Only	selecte	d groups are ava	ilable		
	Group			1	TX
	Mainter	nace			
	Sales				✓
Chec	<u>k All</u>	Incheck All			
Chec	<u>:k All</u> U	Incheck All			

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

Dispatcher					×
Radio Groups Lo	gical Groups	Dispatch Call	Request to Talk	Reports	• •
Radio ID:	60100	1	÷		
Phone Number	123-4567	7			
Email:	billy@gm	ail.com			
Phone Call					
SIP ID:	60100				
SIP User:	60100				
Password:	•••••	••••			
SIP Profile:					$\sim$
			OK	Ca	ancel

• 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			
🛃- Q	Jeries				~
	📑 Lost Device	S			
📑 🗍 S	stem reports				
~~~~~	Registered				
	🔲 Unregistere				
	GPS Status				
		ection History			
	Channel Ch	lging Activity			
	mmon reports	-			
	Messages f				
	State of Ra				
	📋 User Messa	ges and Notes			
	📄 Radio Alloca	ation			
·····	📑 Radio Disab	oling			
	🗊 Telemetry				$\sim$
Check A	II Uncheck All				
			OK	C	ancel

#### • All reports are available

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

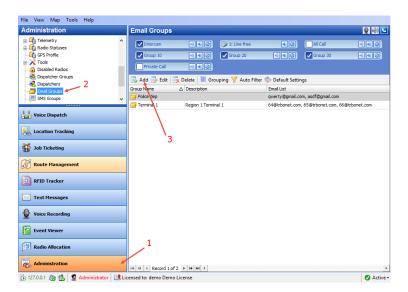
• Only selected reports are available

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

## 6.4.18 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	-		;
Name:	Terminal 1		
Description:	Region 1 Terminal 1		
Email list:	64@trbonet.com 65@trbonet.com 66@trbonet.com		
	Add Remove		
		ОК	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.

# 6.4.19 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					😫 🚳 🕒
Adio Statuses     A     GPS Profile     Construction     Construction     Construction     Construction     Construction     Construction	✓ Intercom ✓ Group 10 Private Call	) = 0 ) = 0 ) = 0	i: Line free ✓ Group 20	4:0 •) 4:0	Al Cal	0 460 -0 460
Email Groups	Group Name 2 Department 2 Department 3	Delete Gro Description Regio 1 Departm Region 1 Departm	ient 2	<ul> <li>Default Settin</li> <li>Phone Numbers</li> <li>79117894561, 7</li> <li>792112374567,</li> </ul>	9217894561	
Uvice Dispatch	3			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
🐮 Job Ticketing						
RFID Tracker						
Text Messages     Voice Recording						
Event Viewer						
Radio Allocation	1					
🐻 127.0.0.1 🛞 🕵 🤦 Administrator 📑 Li	HI II Record 2 of 2					Active -

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



Add/Edit SMS Grou	ups X
Name:	Department 3
Description:	Region 1 Department 3
Phone Numbers:	792112374567 79111234567
	Add Remove
	OK Cancel

Name

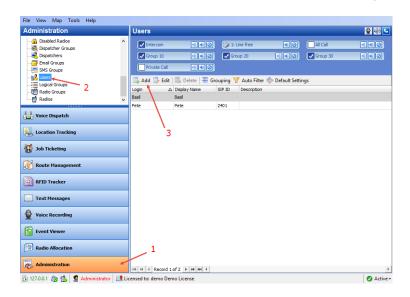
Specify a name for the SMS group.

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

Click **Add** to add a phone number to the SMS group.

## 6.4.20 Users

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



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



d/Edit l	Jser					
General	Radios	Advanced	User Call	Logical Gro	ups	
20	Specify	user inform	ation			
Login:		[	Basil			
Passwo	ord :	[	*******			
Repeat	passwor	d: [	*******			
Display	Name:	[	Basil			
Max ra	dios coun	t:	1	<b></b>		
Descrip	tion:	[				
		L				
				_	ОК	Cancel

Login

Specify the login for the user.

Password

Type in the individual password for the user.

Display Name

Specify a name for the user to display in the Dispatch Console.

- Max 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	Jser					×
General	Radios	Advanced	User Call	Logical Group	ps	
Þ	Specify I	adios that t	ne user can	take		
	v all radios selected	-				
© Only	Callsign			Group		
	-			Police, Fire	emen	
🖌 💰	125			Firemen		
	222			Police, Fire	emen	
	235			Firemen		
144 44	<ul> <li>Reco</li> </ul>	rd 2 of 4 🕨	₩₩ 4			Þ
					ОК	Cancel

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 Advance	d User Call Logical Gro	oups
Lock radio on return		
Allow DTMF managem	ent	
Take radio:	1234	#1234#
Return radio:	5678	#5678#
Allow Text Messages	management	
Take radio:	3214	
Return radio:	5678	
Allow Sign In / Sign O	ut management	
Sign-in ID:		
Send notification to ra	dio after it is taken/retur	med
		OK Cancel

#### Lock 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.

• Sign-in ID

Specify the password that the user enters to sign in when they take a radio.

## 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:

General Radios	Advanced User Call Logica	l Groups
	Advanced 555 558 Eogica	i di dapa
Phone Numb	er: 79211234567	
Email:	2401@gmail.com	
SIP Call		
SIP ID:	2401	
SIP Name:	2401	
Password:		
SIP Profile:		~
Block inc	oming calls	
Block out	going 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.

## 6.4.21 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     Dispatcher Groups     Dispatchers     Enal Groups     Mores     Users     Set Scrups     Veers     More Groups     Gorgen Groups		1: Line free (L) Al Call	0 40
Radios 2	Add as a Root	Cleaning in Department 1	
Voice Dispatch	Cleaning 2	Groups for Security	
Location Tracking	Security 1 Security 2		
🐮 Job Ticketing	3		
Route Management			
RFID Tracker      Text Messages	_		
Voice Recording			
Event Viewer			
Radio Allocation	1		
Administration			
🔂 127.0.0.1 🛞 🕵 💆 Administrator 📗	Licensed to: demo Demo License		🕑 Active -

- Click **Add** (3) to add a logical group.
  - Select **Add as a Root** to add a logical group as a root folder.
  - Select **Add as a Child** to add a logical group as a child folder.

Group properties		Х
Name:	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: 🗄 🗄 👶 🛠 🍸 🗐 🖓 🛇	
<b>X</b>	
Diline crepatoners (1)	
Administrator	
😑 🐴 Cleaning	9
😑 🏪 Cleaning 1	9
💰 💌 125 (Pete) 125	e 🗞
Cleaning 2	9
😑 🐴 Security	9
🗉 🐴 Security 1	
🚷 🖲 235 (Basil) 235	90
Security 2	9
Voice Dispatch	
GPS Positioning	
📅 Job Ticketing	
🥡 Route Management	
RFID Tracker	
Text Messages	
🔮 Voice Recording	

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

# 6.4.22 Radio Groups

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

Administration	Radio Groups				🔮 🕪 🕻
Disabled Radios     Sispatcher Groups     Dispatcher Groups     Dispatcher Groups     Dispatcher Groups     Dispatcher Groups     Sits Groups     Sits Groups     Sits Groups	▲ Intercom ✓ Group 10 Private Cal ▲ Add → Edit		> 1: Line free Group 20 Oroup 20 MDC / Sel-5 (H)	Group 30	•) 4:0 •) 4:0
Radio Groups 2	Cleaners	30 Kadio ID	5 MDC / Sel-5 (H	ex) Description Cleaning g	
	Firemen	20	0		
Voice Dispatch  Location Tracking  Job Ticketing  Route Hanagement  RFID Tracker	Police 3	10	0		
Text Messages     Voice Recording					
	1				

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



Group Properties	5					×
Name:	Cleaners					
Group ID:	30	-				
MDC / Sel-5:	5	-	(Hex)			
Description:	Cleaning group					
Use custom	Call Tone					
Load from						
🧐 Playbad	k message					
				ОК	Cance	1

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>).



# 6.4.23 Radios

The administrator can add/edit/delete radios in the system.

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

Administration		Radios							ê
	^	> 1: Line free		= =	Intercom Group 10	•) •			
- 🚝 SMS Groups - 💦 Users - 📑 Logical Groups - 📸 Radio Groups 💋 2		Group 20	Unregistered		Al Cal	NE Dadia			Add Deser
Radios 4	>		Type MOTOTRBO Radio	Radio ID	MDC ID	SIP ID 125	Radio Gro	Logical Gr	-
Voice Dispatch		£ 13 £ 235	MOTOTREO Radio MOTOTREO Radio	13	0	235	All Firemen; P		
Location Tracking		5 3333	TRBOnet Mobile MOTOTRBO Radio	3333	0	3333	11; 22 All	,	
📅 Job Ticketing		🔊 Radio 300	MOTOTRBO Radio	300	6		All		
Route Management					\ 3				
Text Messages									
🔮 Voice Recording									
Event Viewer									
Radio Allocation		_1							
Administration	-	HI HI I Record	1of6 ▶ ₩ ₩ ·	C					

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

oice Dispatch 125		Х
General Logical Group	s Additional SIP Call Cameras	
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 Servio	ce	
TLM Source:	Built-in Telemetry	Ц
TLM Profile:	(Default) V +	
Text Messages S	ervice	
TMS Type Hide Advanced Sett	Standard	~
nice Advanced Sett		
	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.

• Location Profile

From the drop-down list, select the default or preconfigured Location Profile. For more details on Location Profiles, see section <u>6.4.11, Location Profile</u> (page 206).

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 extended device.

• TLM Profile

From the drop-down list, select the default or preconfigured Telemetry Profile. For more details on Telemetry Profiles, see section <u>6.4.10, Telemetry</u> (page 202).

### **Text Messages Service**

• TMS 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 new Text Messaging service.

Standard

Select if the radio is equipped with a display and supports DMR Compatible text messages.

## **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.

On the Logical Groups tab, specify logical groups for the radio:

Voice Dispatch 125	X
General Logical Groups Additional SIP C	Call Cameras
Name	Description
🖃 🗆 🦢 Cleaning	
···· 🖌 🔁 Cleaning 1	Cleaning in Department 1
🗋 🗁 Cleaning 2	
E Decurity	Groups for Security
🗁 Security 1	
Im Dig Security 2	
	OK Cancel

- Select a logical group in the list of available groups.
- For more information about logical groups, see section <u>6.4.21, Logical Groups</u> (page 237).



Voice Dispatch 235		Х
General Logical Gro	Additional SIP Call Cameras	_
Load Image	Name: Radio 235 Description: Test radio	
Make:		
Plate Number:		
Phone Number:	+7 911 1234567	
Email:	tester@gmail.com	
Max speed:	0 🗘	
Route Color:	Powder 💌	
	OK Cancel	

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

#### • Name

Specify a name for the radio subscriber.

• Description

Add a description for the radio subscriber.

- Click the **Load Image** button and browse for the photo or image to assign to the radio subscriber.
- Make

Specify a make of the vehicle as additional information.

• Plate number

Specify a plate number of the vehicle as additional information.

• Phone number

Add a telephone number for the radio subscriber.

• Email

Add an email address for the radio subscriber. This email address can then be used to create and assign job tickets to the radio (see section <u>6.4.5.16</u>, <u>HotSOS</u> (<u>Email</u>)).

• 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.

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



Voice Dispatch 125	j	×
General Logical G	roups Additional SIP Call Cameras	
SIP ID:	2125	
SIP Name:	2125	
Password:	•••••	
SIP Profile:	SIP 1	~
Block incom		
	OK	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:

Voice Dispatch 125	×
General Logical Groups Additional SIP Call Cam	eras
Name	
Camera 1 Camera 2	
	OK Cancel

## 6.4.23.1 Importing Radios

The administrator can also import radios from an Excel file (\*.xls).

Notes: The Excel file you are importing from must contain at least two columns (**Radio ID** and **Radio Name**). Also note that the first non-empty row in the table will be considered as a header row.

• Click the arrow on the right of the Add MOTOTRBO Radio button and choose Import from File.

Radio ID	Callsign	Home Group	GPS	TMS
10	10		$\checkmark$	$\checkmark$
11 220	11 220		N N	N
Total: 3				

In the Import Radios dialog box:

- Click Load > Excel.
- In the **Open** dialog box, locate the desired file and click **Open**.
- Click Import.

As a result, imported radios will be added to the list of registered radios.



## 6.4.23.2 Adding TRBOnet Mobile

In addition to MOTOTRBO radios, you can create accounts for TRBOnet Mobile Clients that can connect to your radio systems.

• Click Add TRBOnet Mobile.

General	Logical Groups	Addressed	C			
serierar	Logical Groups	Additional	Cameras			
Radio	Name:	3333				
Radio I	ID:	333	*			
Radio (	Groups: F	iremen			$\sim$	÷
Home (	Group: F	iremen			$\sim$	٠
Dispate	cher Groups:	All			$\sim$	+
Profile:		Mobile Client P	rofile #1		$\sim$	÷
Use icc	on: (	🚯 Portable R	ladios			$\sim$
SIP ID:	:	3333				
SIP Us	er:	3333				
Passwo	ord:	•••••	•			
Passwo	ord (repeat):	•••••	•			
🗌 Blo	ck incoming pho	one calls				

In addition to MOTOTRBO 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>6.4.12.1</u>, Adding a Mobile Client Profile.

## 6.4.23.3 Adding WAVE Radio

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

• Click Add WAVE Radio.



WAVE Radio		×
General Logical Group	s Additional SIP Call Cameras	
Radio Name:	Wave 145	
Radio ID:	145 Wave ID: 145	
Radio Groups:	Firemen V +	
Home Group:	Firemen 🗸 🔸	
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		
TLM Source:	×	
TLM Profile:	× +	
Text Messages S	iervice	
TMS Types Hide Advanced Sett	ings	~
	OK Cancel	

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 groups.
- Click 📃 to view radios by radio list.



- Click 💷 to view radios by logical groups.
- Click 📩 to view radios by their statuses.
  - Yellow

A radio is online and enters the beacon coverage zone; has Indoor positioning lock.

Note: When GPS location is available and the radio enters the beacon coverage zone, the status turns yellow from green.

Blue

A radio is online; GPS data is not available.

Green

A radio is online; GPS data is available. This status is shown if the Server has received GPS data during the last 10 minutes (the time interval is set in the server configuration).

Grey

A radio is offline.

• 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	V Private Call
Find on Google Earth	Send Message
Show Route	Request To Talk
Show Route on Google Earth	Elocking On/Off
Coogle Street View	Monitoring Radio
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	
Sonny	
😑 🔡 Radio Group	🖵 🔔
🖈 Radio1	📴 Q 📮 😵
Radio2	
	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 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.

😑 📙 Firer	nen		P	
* 3	111	GPS 📮	0	
ی 🐔 🗧	) 125 (Pete)	GPS 📮	0	
ی 🖈	222	GPS	0	
ی 🐔 🗧	235 (Basil)	GPS 📮	8	
* 🖉	Radio 200	GPS 📮	8	
	Radio 201	on 😑	0	▼

• 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).

# Filter the Radio List

• Click **7**, and select which radio list elements to display in the Radio List pane.

Voice Dispatch
d: 🔚 h: 👶 🛠 🍸 🛇
Radio, Radio Group, Online, GPS Fixed 🗾 🗾
Type:
Radio
Dispatchers 1
Dispatcher Group 2
🔽 Radio Group
Logical Group
Status:
🖸 Online, Indoor 🧹
☑ Online, GPS Fixed
Online, No GPS
🗋 Offline
OK Cancel



- Click the arrow button (1).
- Select the object types and statuses (2) to filter radios.

For example, you may select to display only radios and radio groups that are online and have fixed GPS signal.

• Click **OK** (3) to apply filter settings.

# **Refresh the Radio List**

• Click 🔯 to reload the Radio List contents.

## 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	
🚮 🗄 🗄 👶 🔗 🍸 🗇 🗗 🛇 👘	
125	
🧟 Online Dispatchers (1)	
🖃 📙 Firemen	Ş
觰 🕙 125 (Pete)	GPS 루 📎
*******	

# 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 50% 3 4	
12:44 PM City Mall	6	12:45 PM
Accepted Accepted		7
GPS:	7/12/2018 6	5:24:36 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
	sil'yevskog 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 state, 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 limit 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.

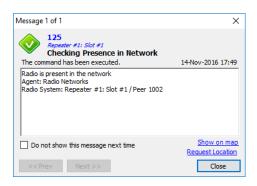
# 6.5.1.4 Radio Shortcut Menu

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:



## • 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	×
Reset Location Trigger	
Reset location trigger	
<ul> <li>Stop location trigger</li> </ul>	
Start location trigger	
Change periodic interval	
Interval: 30,0 🛓 second	
OK	Cancel

# 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

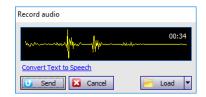
Choose this menu item to disable the selected radio.

#### • Advanced > Send Audio Record

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



• Click **Start** and start talking to the microphone.



- Click **Send** to send the recorded message to the radio.
- You can also load your message from file, or from Saved Audio Files. Just click the Load button.



 Or, you can send a text message converted to speech. Just click the Convert Text to Speech link.

Convert Text to Speech	X
Text:	
Pete, get back at work	▲ ▼
Listen	OK Cancel

# • Advanced > Send Coordinates To

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

Send Text Messag	e		×		
Target:	235 (Basil);				
Templates:			~ 🌗		
Text:	125 (Pete) Latitude: 59°5 30°16'47.91"E	6'25.69''N; Longitude:			
			66		
Attachments:	Add File				
Select Radios and	Groups				
Filter:	235				
<table-cell> 🧏 235 (Ba</table-cell>					
🔽 Send copy by Er	nail				
Send copy by SI	☐ Send copy by SMS				
Send to offline radios					
Hide Advanced Options 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)	$\sim$
From:	15-Nov-2016 0:00	•
To:	<last known="" location=""></last>	•
Color:	105, 105, 105	•
	Optimize Route (group all nearest points)	
	OK Cano	cel

# • 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 Status Colors

Choose this menu item to select to set individual parameters for the radio icons.

	Status		lor						
Þ	Offline	E	) Offline				-	+	
	Online, No GPS	۶	) Online,	No GPS			•	+	
	Online, GPS Fixed	۲	) Online,	GPS Fixed			•	+	
	Online, Indoor	٠	) Online,	Indoor			•	+	
	Alarm	6	Alarm				•	+	
							Re	eset	
re	view						Re	eset	
	view	Online		Online (GPS)	Online (Bea	con)		eset	



- In the Status Colors dialog box, you can specify icons for the statuses of the selected radio. Select icons from the drop-down list. To set a custom color for the radio status icon, click 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>6.4.5.13</u>, <u>User Activity</u> (page 182).

# 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
PIT	All Call 🔻
	Session:
	Free channel
	Sender:
RX / TX	]

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.

## • 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 call.

Note: The current transmission can also be terminated by clicking the **Terminate** button in the PTT box.



## • Reset

Click this menu item to reset connection to the selected channel/group.



# • Minimize/Maximize

Click to minimize or maximize the PTT box.

# 6.5.3 Voice Calls

The dispatcher can make the following types of calls:

• Private Call

This is an individual call from the Dispatch Console to a radio via the radio channel.

All Call

This is a call from the Dispatch Console to all radio groups registered in the system.

• Group Call

This is a call from the Dispatch Console to a selected radio group registered in the system.

# • Intercom Call

This is a call from the Dispatch Console to other dispatchers. There are three types of Intercom Call:

- Intercom Call to all dispatchers
- Group Intercom Call to a group of dispatchers
- Private Intercom Call to a selected dispatcher

# • Phone Call

This is a call from the Dispatch Console to a selected phone number.

In addition, the dispatcher can send voice mails to offline radios.

## 6.5.3.1 Private calls

The dispatcher can make a call to any online radio registered in the system. To make an individual call from the Dispatch Console to a selected radio via the radio, channel do the following:

- Select the radio in the Radio List.
- Click the 💟 button on the right.

Or:

- Right-click the radio in the Radio List.
- On the drop-down menu, click Private Call.
- To terminate a private call, do the following:
  - Click the PTT button on the PTT box.

Or:

• Click the 💟 button in the Radio list.

Note: You can also create a special PTT box for Private Calls. For more details, see <u>View > Configure PTT Boxes</u> on page 96.



# 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.



• 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 96.

# 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
8	Sender:
RX/TX -	

• Click the **PTT** button.

# 6.5.4 Predefined Voice Messages

The dispatcher can send predefined voice messages (recorded or voice messages, or audio files) to a radio or a selected radio group:

File View Map Tools Help								
Voice Dispatch	Radio Interface							😫 🗐
G: E: H: 👶 🛠 🍸 🖻 🗗 😒	Radio Interface Recer	nt Calls/Events						
			Active Calls		(	×	Quick Comman	is 🗙 🖌
🖈 🧭 Radio 204 🛛 🔤 🔍 🍊							Configure	
🖈 🕑 Radio 205 🔤 🖵 🔇							Queued Messag	jes 🗙
Firemen								
						^	🥥 Record 🔫 😰	File 🔻
	Repeater #1: Slo	t #1 🕘 🛋	⊘ ) ( ☑ ₽	epeater #1: Slot	#2 🕖 🛒 🖉		To: Selected Channels	
🐔 🕒 125 (Pete) 📴 🖵 🚫 🗮	All C	all	-	All Ca	- II			
🛞 🥸 222 🔤 📮 📎 🗕	PTT		- P	TT			Voice Message	ige
🛞 🕲 235 (Basil) 🛛 🛄 🖵 💙							voice message	
🖈 🧭 Radio 200 🛛 🚟 루 义	Session	n:		Session			Patch	X
💰 🧭 Radio 201 🛛 📟 🔍	Free d	hannel		Free ch	annel			
🚯 🖓 Radio 202 🔛 💷 😒 🖬							Drag and Drop PTT Box here to	create new group
Voice Dispatch	Sender	r:		Sender:			<u> </u>	
Voice Dispatch				2			Patch on Repeaters	
Location Tracking							Binary Patch	
······································	RX / TX		76 R	к/тх —	<u></u>			
🙀 Job Ticketing							System Bridge	
						~ [	Repeater #1: Slot #2	PTT
🕢 Route Management	Recent Calls/Events							
	🖾 Playback 🛃 Save 🗸 🦢	Print II Paus	e ợ Clear 🛛 🏐	Reload   懫 Filte	er By Radio 🛛 🚟 Grouping	7	Auto Filter 🗇 Default Setting	s 🚰 Details
RFID Tracker	Date	Radio System	Sender	Recipient	Message		Details	Note
	15-Nov-2016 15:43:52 3 15-Nov-2016 13:28:52	Repeater #1: Sl		125 All	Private Call: Dispatcher 'Disp Reset Geofencing Alarm	oat	Members: Dispatcher 1, 125	-
Text Messages	* 15-Nov-2016 13:28:52		235	Al	The Geofencing - Monitor An			
A	2016 13:28:48 2016 13:28:48		235	Al	Radio left allowed region 'My			
👻 Voice Recording	3 15-Nov-2016 13:28:48		235	All	Radio left allowed region 'My			-
Event Viewer	144 44 4 Record 1 of 578							F
	Recent Calls/Events Recen		o Talk Radio Stat	e Active Tasks	Active Routes User Activit	ty	Map Cameras	
🐻 127.0.0.1 🛞 🕵 🕵 💆 Dispatcher 1 📑	Licensed to: demo Demo Lice	ense						Active

- 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).



	Radio Interface							
🗄 h 🎝 🗶 7 🗊 🗗 🕯	Radio Interface	Recent Calls/Events						
	-		Active Calls			X	Record	🔹 🗘 File 🔻
🕷 🛞 Radio 203 🛛 🔛 寻 💐							To: Selected Channel	
🖈 🕑 Radio 203 🔐 🖵 💐								2
							Voi	ce Message
Ҟ 🧭 Radio 205 🛛 🐺 寻 💐	Repeater #	1: Slot #1 🕘 🖣		epeater #1: Slot #	2 🕘 📢 🙆	^	Voice Message	-
Firemen 5	- Repeater -			<u> </u>				
🚯 🕑 111 🛛 🔐 💷 💐	DTT	Police	· .	Fireme	1 <u>*</u>		Pat	ch
🚷 오 125 (Pete) 🛛 📴 🛡 🕅	PTT		P	ГТ			Drag and Drep PTT Day	chere to create new grou
🎓 🕑 222 🛛 🔛 📮 💐							or ag and prop PTT B0)	chere to create new grou
🏂 奧 235 (Basil) 🛛 🔛 📮 💐	a 🤁	Session:		Session:				
<u> </u>		Group Call	_ [ ] 🎽	Group Ca			Patch on Repeate	rs
Voice Dispatch		Firemen		Police Sender:			Binary Patch	
voice bispateir		Sender: Dispatcher 1		Dispatche			Firemen - Polic	
Location Tracking		Uspatcher 1			F1		Repeater #1: 9	ilot #2
· · ·				177			Police	PTT
Job Ticketing	RX / TX			(/тх ———	<u></u>		Repeater #1: 9 Firemen	ilot #1
-						~	Fremen	
Route Management	Recent Calls/Event			1.000				
	Playback 📓 Sa	ve 🕶 ڬ Print 🛛 🚺 Pau	ise 💜 Clear 🗕 🧐		By Radio   🖶 Groupir	ng 🍸	Auto Filter 🐵 Default	Settings Metails
RFID Tracker	Date	Radio System	Sender		Message		Details	Note
	15-Nov-2016 17:3 15-Nov-2016 17:3				Radio '125' calls group 'Fi Radio '125' calls group 'Pi			
Text Messages	15-Nov-2016 17:3				Radio 125 calls group P Radio '235' calls group 'Pi			
	15-Nov-2016 17:3				Radio '235' calls group 'Fi			
Voice Recording	15-Nov-2016 17:3	4:37 Repeater #1: Sl.			All Call from '235' (00:01)		Members: 235	
Event Viewer	144 44 4 Record 14				Active Routes User Ac			

## 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			9
1 🗄 1 👶 🛠 🍸 🗇 A 🛇	Radio Interface Recent Calls/Events Active Calls	X	Quick Commands	×
🏦 🛞 Radio 203 🛛 📟 🔍 🎽			Configure	
🖈 🕑 Radio 203			Queued Message	s 🛛
🖈 🕑 Radio 204 🔤 📮 🔇				
Firemen	Telephony		🥥 Record 🔻 🖆	File 🔻
👔 🖉 111 🔤 🖵 😒 =			To: Selected Channels	
🐒 🔊 125 (Pete)	Free channel		Voice Messag	
	4 5 6 Menu Al Cal		Voice Message	
	🔽 Repeater #1: Slot #1 🛛 🖷 🖉 🔽 Repeater #1: Slot #2 🗐 🕷 🖉		Patch	2
😭 🧭 Radio 200 🔤 👎 🔌	Free channel		Firemen	
🗶 🧭 Radio 201 🛛 🚟 早 义 🚽	Al Cal		Cleaners	Clear
1		2-	Create	Cical.
Voice Dispatch	Firemen 🕘 🖷 🕗 🔽 Cleaners 🕖 🕷 🕗		Patch on Repeaters	
Location Tracking	Free channel		Binary Patch	
5	PTT Firemen Cleaners		Firemen - Police	<b>N</b>
🐕 Job Ticketing			Repeater #1: Slot #2	
- -	Recent Calls/Events		Delice	PTT
🕐 Route Management	🗐 Playback 🚽 Save - 🔄 Print 🔢 Pause 🥩 Clear - 🇐 Reload 🌾 Filter By Radio 🗮 Group		Auto Ellers 🚖 Default Cattings	Dataile
RFID Tracker	Date Radio System Sender Recipient Message	ang T		lote
RFID Tracker		1' cals	Members: Dispatcher 1	lote
Text Messages			Members: Dispatcher 1	
			Members: Dispatcher 1	
Voice Recording			Members: Dispatcher 1	
	Is-Nov-2016 17:55:01         Repeater #1: Sl         Dispatcher 1         Cleaners         Dispatcher 'Dispatcher           ₩         ≪         Record 1 of 675         ▶         ▶         ₩	1 cals	Members: Dispatcher 1	
Event Viewer	Recent Calls/Events Recent Calls Request to Talk Radio State Active Tasks Active Routes User A	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.



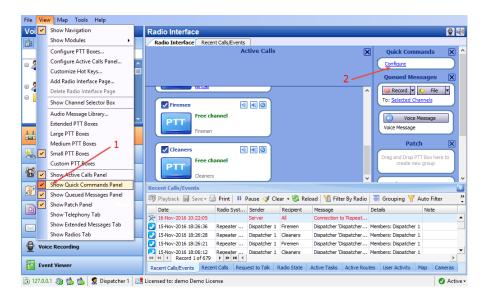
File View Map Tools Help		
Voice Dispatch	Radio Interface	👻 🚳
💼 🗄 🛔 👶 🛠 🍸 🕫 🛱 🔕	Radio Interface Recent CallyEvents Active Calls	Voice Message
€       ○       Radio 204       □       □       ▼       ♥         €       ○       Radio 205       □       □       ♥       ♥         ●       ●       Firemen       ■       ●       ●       111       □       ■       ♥       ♥         ●       ●       111       □       ■       ♥       ♥       ●	Telephony C 0 200 mm 56 mm 456 mm Henu mm	Voice Message Patch Pag and Drop PTT Box here to create new group Patch on Repeaters
★ 222       □□ → ↓         ★ 235 (Basil)       □□ → ↓         ★ 235 (Basil)       □□ → ↓         ★ 235 (Basil)       □□ → ↓         ★ 236 (Basil)       □□ → ↓	Repeater #1: Slot #1     If I III       Free channel     Image: State of the s	Sinary Patch  Sinary Patch  Sinary Patch  Sinary  Sinary Patch  Sinary  Sina
Voice Dispatch Location Tracking Contracting	Fremen     Image: Constraint of the Cons	Firemen - Police     Repeater #1: Slot #2     Police     Repeater #1: Slot #1     Fremen
Route Management	Recent Calls/Events 🛱 Playback 🚽 Save - 🕒 Print   11 Pause 🛷 Clear - 🍪 Reload   🌇 Filter By Radio   🚍 Grouping 🍸	Auto Filter 🐵 Default Settings 🚰 Details 🐥
RFID Tracker	Date         Radio System         Sender         Recipient         Message           7 15-Nov-2016 18:06:05         Repeater #1: Sl         Dispatcher 1         Firemen         Dispatcher 1'calls	Details Note Members: Dispatcher 1
V Text Messages	I 5-Nov-2016 18:06:05         Repeater #1: Sl         Dispatcher 1         Firemen         Dispatcher 1'ospatcher 1' cals           I 5-Nov-2016 18:03:06         Repeater #1: Sl         Dispatcher 1         Cleaners         Dispatcher 1'ospatcher 1' cals	
Voice Recording	Dispatcher 1         Firemen         Dispatcher 1'slas           15-Nov-2016         158:03:01         Repeater #1:Sl         Dispatcher 1         Firemen         Dispatcher 1'slas           15-Nov-2016         158:21         Repeater #1:Sl         Dispatcher 1         Firemen         Dispatcher Dispatcher 1'slas           14(4) ≤ (         Keroord 16 f 578         H (M)         H (M) <th></th>	
Event Viewer	Recent Calls/Events Recent Calls Request to Talk Radio State Active Tasks Active Routes User Activity	Map Cameras
🔂 127.0.0.1 🙈 🔂 🔂 💆 Dispatcher 1	Licensed to: demo Demo License	🖸 Active -

# 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 Comman	d	×
Name:	Test	
Command		
Command:	Send Text Message	•
Message:	This is a test	
C Send to Ra	adio Group	
Send to Rate	adio	
Recipient:		
		9,
13		*
🗹 👧 125		
235 🗹 😥		
<b>(*)</b> 555		U
3333		
<b>6</b> 5555		-
Selected: 2		
d d	[	<b>▼</b> • [ ≕ ] •
	ОК	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	dio Group	
Send to Rad	dio	
Recipient:		
		0,
13		*
125		
🗹 🗭 235		
555 🛞		U
🗆 🎓 3333		
(★) 5555		<b>T</b>
Selected: 2		
d d		<b>7 • = •</b>
		OK Cancel

### Command

From the drop-down list, select **Send Telemetry**.

VIO

Specify a VIO to which to send a telemetry command.

Command

From the drop-down list, select a telemetry command for the selected VIO.

Send to Radio Group

Choose this option to send the telemetry command to radio groups registered in the system. In the **Recipient** box, select target groups.

Send to Radio

Choose this option to send the telemetry command to individual radios registered in the system. In the **Recipient** box, select target radios.



# 6.5.6.3 Request Location

Quick Command	×
Name: Location of 125 and 235	
Command	
Command: Request Location	
Recipient	
9	
13	
125	
235	
555	
3333	
☐ ★ 4444	
5555	
Radio 300	
Radio 333	
🗌 💰 Radio 3662	
Selected: 2	
OK Cancel	

## Command

From the drop-down list, select **Request Location**.

# Recipient

Select radios to which to send a location request.

# 6.5.6.4 Send Voice Message

Quick Command				>
Name:	We are on	fire		
Command				
Command:	Send Void	e Message		•
Load from f Record mes Play back m	sage			
Call Type	(	Channel	Call Target	
Group Call	d	L Capacity Plus #1	Firemen	-
Priority:	Remove Normal			•
		Г	ОК	Cancel

Command

From the drop-down list, select **Send Voice Message**.

Load from file

Click this link and locate the audio file on your PC.

Record Message

Click this link to record a new voice message.



Play back message

Click this link to play back the voice message.

- Specify Call Type, Channel, and Call Target for a voice message.
  - Note: To send a Voice Message to a subscriber from the phone book, click the ellipsis (...) button in the Call Target column and select a contact from the phone book.

#### Priority

From the drop-down list, select the priority with which the voice message will be sent.

## 6.5.6.5 Send Signaling

Quick C	ommand					×
Name:	s	ignal :	1			
Comma	ind					
Com	mand:	Send	Signaling		•	
Radi	io System:	Capa	city Plus #1		•	
Targ	jet:	Firen	ien		<b>~</b>	
Туре	e:	Cust	om		•	
	Freq. 1 (Hz)		Freq.2 (Hz)	Duration (ms)	Pause (ms)	
1	288.5		0.	1000	0	
	<u>Add</u> X Del	ete		⊗ Move Li	p ⊗ Move Down	
		cić		× Move of	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.

Type

From the drop-down list, select the signaling system type (Quick Call I, Quick Call II, DTMF, or Custom).

If the **Custom** type is selected, specify the **Frequency 1**, **Frequency 2**, **Duration**, and **Pause** for the signal to be sent.



# 6.5.6.6 Send Command to Control Station

Quick Command		×
Name:	Command to Control S	tation
Command		
Command:	Send command to C	ontrol Station
Control Station	n	Command
TRBOnet Swift	t Agent #1	
		PIN5 SET ON
		PIN6 SET ON
		PIN6 SET OFF
		PIN6 PULSE
🖶 Add 🗙 D	<u>elete</u>	
		OK Cancel
		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:	.Π 1		
Command			
Command:	Request To Talk		•
C Send to Radio	Group		
Send to Radio			
Recipient:			
			9
13			*
125			
235			
<ul> <li></li></ul>			
<b>1 (*)</b> 4444			
5555			0
🗌 🛞 Radio 300	)		-
Selected: 1	•		
d d			= *
		ОК	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

	d			
Name:	Swift 1			
ommand				
Command:	Send Swift Commar	nd		-
Swift Comman	nd: Swift Command 1			-
Parameter 1:				
Parameter 2:	0 🜩			
Send to Ra	dio Group			
-				
C Send to Ra	idio			
Recipient:	dio	Group		
		Group Firemen		•
Recipient: System	#1			-
Recipient: System Capacity Plus	#1		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 Interface	9
💼 🗄 🐁 🛠 🍸 🗇 🗇 🕲 🗌	Radio Interface Recent Calls/Events	
	Active Calls Quick Commands	× ^
😑 🤶 Online Dispatchers 🔤	Configure	
🙎 Dispatcher 1	Queued Messages	X
🗉 🤵 Group1	Arcon	
🛛 📊 Cleaners 📮	To: Selected Channels	
🖈 🧭 Radio 200 🛛 📟 🖵 🔇	Firemen 🕺 📧 🖉	
🖈 🙆 Radio 201 🛛 🔛 🔍 🚽	Free channel	
	Firemen Voice Message	
Voice Dispatch	Patch	X
Location Tracking	Cleaners 🗃 📧 🖉	_
	Free channel Drag and Drop PTT Box h create new group	ere to
😸 Job Ticketing	Cleaners	= 1
	Recent Calls (Swents	
🥂 Route Management	💷 Playback 📓 Save - 🍚 Print 🔲 Pause 🍼 Clear - 🍣 Reload 🏾 🖫 Filter By Radio 🛛 🚟 Grouping 🍸 Auto Filt	er »
RFID Tracker	Date 🛆 Radio Syst Sender Recipient Message Details Note	, ei
	Pare a robe gran action response resource below rote	
C Text Messages	15-Nov-2016 18:26:28 Repeater Dispatcher 1 Cleaners Dispatcher 'Dispatcher Members: Dispatcher 1	
0	15-Nov-2016 18:26:36 Repeater Dispatcher 1 Firemen Dispatcher 'Dispatcher Members: Dispatcher 1	
Voice Recording	16-Nov-2016 10:22:05 Server All Connection to 'Repeat	-
Event Viewer	H4 44 4 Record 679 of 679 > >> >> 4	Þ
Event Viewer	Recent Calls/Events Recent Calls Request to Talk Radio State Active Tasks Active Routes User Activity Map C	ameras
访 127.0.0.1 🛞 🥵 🕵 🧕 Dispatcher 1 📑	Licensed to: demo Demo License	Active

To queue an audio message for delivery to the selected recipients, first record a message by clicking the Record button. Alternatively, you can select 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.

Filename	Description	Severity	Hot Key	Visibility
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:

Record audio	
	00:00
Convert Text to Speech	
Start Cancel	

• Click **Start** and start talking to the microphone.

Record audio	
-hanna the hard the hanness	00:17
Convert Text to Speech	
Stop Cancel	

• Click **Stop** to stop recording the message.



- 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.

File View Map Tools Help					
Voice Dispatch	Radio Interface				👲 🚳
📑 🗄 🗄 🛠 🍸 🖉 🖓 🐼	Radio Interface Recent Cals/Events				
(a)       (b)       (c)       (	Repeater #1: Slot #1 @ @ PTT Free channel A Cal Repeater #1: Slot #2 @ @ PTT Free channel A Cal Veccent Calle/Events			Quick Con     Configure     Queued M     @ Record •     To: Selected C     Voice Message     voice Message	essages X ty File T Channels
Location Tracking	🖾 Playback 🔙 Save - 🎃 Print 🛛 Pause	🥩 Clear 👻 🍪 Reload   懫 Fi	lter By Radio 🛛 🗮 Gro	uping 🍸 Auto Filter	» *
💥 Job Ticketing	Date Radio System	Sender Recipient	Message	Details	Note
Route Management	<ul> <li>16-Nov-2016 15:22:16 Repeater #1: Slot #2</li> <li>16-Nov-2016 15:22:16 Repeater #1: Slot #1</li> <li>16-Nov-2016 15:22:15 Intercom</li> </ul>	Administrator All Administrator All Administrator All	All Call from dispat	Members: Administrator Members: Administrator Members: Administrator	r
RFID Tracker	<ul> <li>16-Nov-2016 15:22:15 Intercom</li> <li>16-Nov-2016 15:22:12 Repeater #1: Slot #2</li> <li>16-Nov-2016 15:22:12 Repeater #1: Slot #1</li> </ul>		Dispatcher 'Adminis	Members: Administrator Members: Administrator Members: Administrator	r
C Text Messages	<ul> <li>16-Nov-2016 15:22:07 Repeater #1: Slot #1</li> <li>16-Nov-2016 15:22:07 Repeater #1: Slot #2</li> </ul>	Administrator All Administrator All	All Call from dispat	Members: Administrator Members: Administrator	r
Voice Recording	№ 16-Nov-2016 15:22:06 Intercom № 16-Nov-2016 13:33:09	Administrator All 235 All	Intercom Call: Disp Reset Geofencing	Members: Administrator	-
Event Viewer	Recent Calls/Events Recent Calls Request to	Talk Radio State Active Tasks	Active Routes User	r Activity Map Cam	
🚺 127.0.0.1 🍓 🕵 🕵 💆 Dispatcher 1 📗	Licensed to: demo Demo License				Active •

# **Voice Recording**

# Play back selected call(s)

• Select the voice call recording you want to play back and click the Playback button on the left of the toolbar.

The Audio player box will appear.

🛅 Audio player	×
Duration:	00:03
Left:	00:02 00:01
Position	00.01
▶ Play <mark>  </mark> Pause ■ 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 | 📮 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).

🕮 Playback 📓 Save	- 进 Print   🛚 Pause 🛷	Clear 🗕 🏐 Reload   🌇 Filt	ter By Radio 🛛 🚟 Grouping	🍸 Auto Filter 🖙 🛛	Details 📋 Show Notes 🛛 🙄
Date	Radio System	Sender	🗵 Redpient	Messag	ge 🖉
		dis	- 2		•
💋 16-Nov-2016 16:54:	16 Repeater #1: Slot #1 1	Dispatcher 1	Firemen	Dispato	her 'Dispatcher 1' calls group '
💋 16-Nov-2016 16:54:	09 Repeater #1: Slot #2	Dispatcher 1	AI	All Call	from dispatcher 'Dispatcher 1'
16-Nov-2016 16:53:	57 Repeater #1: Slot #2	Dispatcher 1	Police	Dispato	her 'Dispatcher 1' calls group '
16-Nov-2016 16:53:	57 Repeater #1: Slot #1	Dispatcher 1	Firemen	Dispato	her 'Dispatcher 1' calls group '
16-Nov-2016 15:35:	23 Repeater #1: Slot #1	Dispatcher 1	Al	All Call	from dispatcher 'Dispatcher 1'
💋 16-Nov-2016 15:35:	16 Repeater #1: Slot #1	Dispatcher 1	Al	All Call	from dispatcher 'Dispatcher 1'
	36 Repeater #1: Slot #1	Dispatcher 1	Firemen		her 'Dispatcher 1' calls group '
14 44 4 Record 0 of 8	10 Panastar #1, Clat #1	Constraint 1	Channer	Disease	har Dimatchar S' calls aroun '
🗙 🔽 Contains([Sender	], 'dis') 🔻				Edit Filter
Recent Calls/Events	Recent Calls Request to Talk	Radio State Active Tasks	Active Routes User Activit	y Map Cameras	

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	2 Recipient	Message Details	
16-Nov-2016 16:54:	16 Repeater #1: Slot #1	Dispatcher 1	Firemen	Dispatcher 'Dispatcher 1' c Members: Dispatcher 1	
16-Nov-2016 16:54:	09 Repeater #1: Slot #2	Dispatcher 1	All	All Call from dispatcher 'Dis Members: Dispatcher 1	
16-Nov-2016 16:53:	57 Repeater #1: Slot #2	Dispatcher 1	Police	Dispatcher 'Dispatcher 1' c Members: Dispatcher 1	
16-Nov-2016 16:53:	57 Repeater #1: Slot #1	Dispatcher 1	Firemen	Dispatcher 'Dispatcher 1' c Members: Dispatcher 1	
16-Nov-2016 15:35:	23 Repeater #1: Slot #1	Dispatcher 1	All	All Call from dispatcher 'Dis Members: Dispatcher 1	
16-Nov-2016 15:35:	16 Repeater #1: Slot #1	Dispatcher 1	All	All Call from dispatcher 'Dis Members: Dispatcher 1	
15-Nov-2016 18:26:	36 Repeater #1: Slot #1	Dispatcher 1	Firemen	Dispatcher 'Dispatcher 1' c Members: Dispatcher 1	
15-Nov-2016 18:26:	28 Repeater #1: Slot #2	Dispatcher 1	Cleaners	Dispatcher 'Dispatcher 1' c Members: Dispatcher 1	
15-Nov-2016 18:26:	21 Repeater #1: Slot #1	Dispatcher 1	Firemen	Dispatcher 'Dispatcher 1' c Members: Dispatcher 1	



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:	All		•
Severity:	Information	<b>_</b>	
Message:	Test		<b>A</b>
			-
		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:

	<u> </u>	All Call 🛛	🌶 Clear 🏾 🍸 Filter				
Most Recent Call	Caller					Call Number	Actions
27.04.2017 12:19	125	<b>`</b> 3				5	2
All Call	<b>`</b> 2	4	Group Call Calls: 3	ſ	Call		
27.04.2017 1	2:19		27.04.2017 12:18		27.0	4.2017 12:18	

- 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-Radio (Radio is displayed in the Sender column).

Click the 💟 button to mark the calls as viewed.

Click the 送 button to clear the recent call history.

# 6.5.8.3 Request to Talk

On the **Request to Talk** tab, the dispatcher can see Missed Calls and Requests to Talk:

Types: 🛛 💐 Missed Call	💄 Request To Ta	lk 🛛 View: 📰 Table	e 🔠 Cards 🛛 🍼	Clear 🏾 🍸 Filter	i 📑 Option
lost Recent Call	Caller	Accepted/Queued	Call Type	Call Number	Actions
8.04.2017 17:30	🚯 125	Dispatcher 1	🔔 Request To T		1 🔇 🖑 🖇
	U		_		

- 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 Notification	ons			
✓ After clicking	ations in a pop-up window Accept, start a return call			
✓ Play a sound when RTT notifications arrive ✓ Show notification in the Windows tray				
✓ Synchronize with other dispatchers ✓ Automatically delete Reguest To Talk record after responding				
Wait for response				
Enable Response	es 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	alk		
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 notification type					
C Send Text Message					
C Send Audio I					
Notification t	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 🧾 Ade	d Note 👒 Add Message	
	Date	Dispatcher 🛆	State
Repeater #1: Slot #2	17-Nov-2016 11:35:22		Reset Geofencing Alarm
GPS: 17-Nov-2016 11:35:15	- 17-Nov-2016 11:35:15		Geofencing Alarm [GPS Date: 17-Nov-2016 11:35:15; Latitude: 59°56'27.78'N; Longitud
GPS: 17-NOV-2016 11:35:15 Speed: 0.4 km/h	17-Nov-2016 11:35:15		Radio left allowed region 'Route 1'
Altitude: Unknown	17-Nov-2016 11:35:15		Radio left allowed region 'Route 1'
Latitude: 59°56'27.78"N	16-Nov-2016 10:34:20		Radio Online
Longitude: 30°16'47.08"N	15-Nov-2016 18:47:22		Radio Offline
	15-Nov-2016 14:01:27		Radio Online
	15-Nov-2016 14:00:25		Radio Online
	15-Nov-2016 11:29:26		Radio Online

In the Radio 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).

Task	Radio	State
Lone Worker 1	125 (Pete)	12:01 - 12:3
Timer	235 (Basil)	0.00:29:16 - Timer started.
₩ ₩ 4 Record 1 of 2 ▶ ▶ ₩ 4 Recent Calls Events Recent Calls Request to Tak	Radio State Active Tasks Active Routes User Active	nty Mao Cameras

The dispatcher can manage active tasks as follows:

Click the **Stop** button to stop executing the selected task.

Click the **Grouping** button to group the tasks. Select the column you want to group tasks by. Drag and drop the selected column header to the Grouping field.

Click the **Auto Filter** button to set a filter for the active tasks. You can filter the tasks by any parameter. For example, to filter by selected radio select the **Radio** column, and start typing the radio name.

Click the **Default Settings** button to apply default settings to all active tasks.

## 6.5.8.6 Active Routes

On the Active Routes tab, the dispatcher can monitor all active routes.

		*	
top 📑 Edit 🚳 Exp	oort • 📑 Grouping 🍸 Auto	o Filter 🐵 Default Settings	
Route			
00:01 12:21	12:21 10:00 10:40		
			,
- HH			
	00:01 Route	Route 00:01 12:21 12:21 10:00 10:40	00:01 12:21 12:21 10:00 10:40

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 Activity #1	∆ Time	
£ 111			235	13:15:01	125	13:15:0	9
222			-		-		
Radio 200							
Radio 201							
Radio 202							
Radio 203							
Radio 204		-					
Padio 204							

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

## 6.5.8.8 Map

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

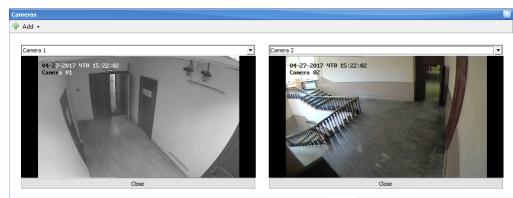


For more details on map options, see section <u>6.6, Location Tracking</u> (page 281).

## 6.5.8.9 Cameras

On the **Cameras** tab of the Activity Monitor panel, you can monitor cameras connected to Dispatch Console.





Recent Calls/Events Recent Calls Request To Talk Radio State Active Tasks Active Routes User Activity Map Cameras

• 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 🔹 Ø
Tel: 240	9 🖌	<b>▼</b> …
3	Menu	-
Line 1	Line 2	Line 3
Line 4	Line 5	Line 6
1	2	3
4	5	6
7	8	9
*	0	#

In the Telephony box, select the Line (1), enter the phone number (2) and click the
 (3) button.

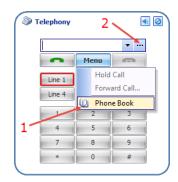
# Terminate a phone call

• In the Telephony box, click the **ease** button.

### Open a phone book

 In the Telephony box, click the ellipsis (...) button (2) or click Menu > Phone Book (2):





# 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	
125 (Pete)	
A Dispatcher 😥 235 (Basil)	
Radio1	
Radio Group 2	
Phone 4 3	
Conference Forward Can	cel



• 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".

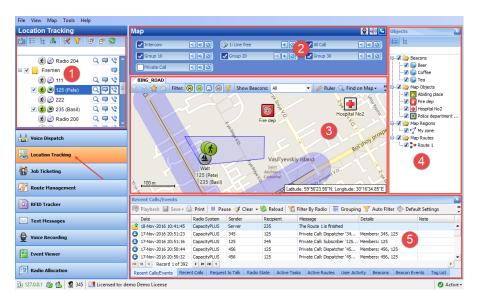
## **Terminate a call**

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

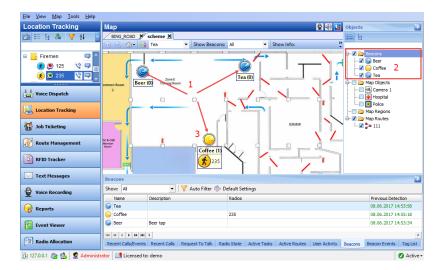
On the Objects panel, the dispatcher can view and enable/disable the following objects:

- **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).



# 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 322)

# 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 287).

In addition, the dispatcher can import and export map objects.

## **Importing map objects**

- In the **Objects** panel, right-click the **Map Objects** folder and choose **Import**. In the **Import Map Objects** dialog box:
  - Click Load and select on the drop-down menu select the file format (Excel, CSV, or KML/KMZ).
    - Note: The Excel file you are importing from must contain at least three columns (**Name, Lat** and **Lon**). Also note that the first non-empty row in the table will be considered as a header row. The .CSV file must contain 8 comma-separated values in each row.
  - In the Open dialog box, locate the desired file and click Open.



Click Import.

As a result, imported map objects will be added to the list of map objects.

### **Exporting map objects**

- In the **Objects** panel, right-click the **Map Objects** folder and choose **Export**.
  - In the **Export Map Objects** dialog box:
  - Select the required objects by checking their check boxes.
  - Click **Export** and from the drop-down menu select the file format (Excel or CSV).
  - In the Save As dialog box, locate the folder where you want to save the file, type a filename, and click Save.

# 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 287).

In addition, the dispatcher can import and export map regions.

#### Importing map regions

- In the **Objects** panel, right-click the **Map Regions** folder and choose **Import**. In the **Import Map Regions** dialog box:
  - Click Load > Excel.
    - Note: The Excel file you are importing from must contain at least two columns (**Name** and **Points**) and at least three points in the second column. Also note that the first non-empty row in the table will be considered as a header row.
  - In the **Open** dialog box, locate the desired file and click **Open**.
  - Click Import.

As a result, imported map regions will be added to the list of map regions.

#### **Exporting map regions**

- In the **Objects** panel, right-click the **Map Regions** folder and choose **Export**. In the **Export Map Regions** dialog box:
  - Select the required regions by checking their check boxes.
  - Click Export > Excel.
  - In the Save As dialog box, locate the folder where you want to save the file, type a filename, and click Save.



# 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 289).

# 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 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 *button* and select which radios to hide according to the radio groups and/or logical groups they belong to, and the map regions they are currently in.

Click the 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.

Search by Address (BING_ROAD)	×
Broadway 18	<u>_</u>
18 Broadway, Tanytown, NY 10591, USA	
18 Broadway, Somerville, MA 02145, USA	
18 Broadway, Denver, CO 80209, USA	
18 Broadway, Denver, CO 80203, USA	
	Close
	51036

• Click the address in the list to display it on the map.



cation Tracking	Мар					9	🗐 🔽 Obje	ects
🗄 🗄 👶 🍸 ĝi	1: Line free	Inte	rcom 🔊 🕷	0 🗸	Group 10		1	ŧ
Firemen 📮 🦱	All Call	🗉 📢 💽 🔽 Grou	p 20 🔊 📢	0 🗸	Search by Ad	dress (My Map)	×	🔤 Beacons
😭 👏 125 🛛 🔍 📮	Group 22	🔍 🕊 🥥 🛛 🔽 Priva	ite Call 🔊 📢	0	Broadway 18		٩.	- ☑ 😳 Beer - ☑ 😳 Coffee
🗶 💌 235 🛛 🔍 🖵 🔳	My Map 🗶 Floor plan	×						- 🗹 🌍 Tea
Police 📮	🔍 🔍 👷 🏠 🖌 Filter:	88387	Show Beacons:	Al	10 December	Somerville, MA 02145, USA		Map Objects
Voice Dispatch			T		18 Broadway 18 Broadway 18 Broadway	Tanytown, NY 10591, USA Lawrence, MA 01840, USA Park Ridge, NJ 07656, USA		- 🖉 < Camera 1 - 🖉 🖶 Hospital - 🗹 💌 Police
			Bro		18 Broadway	Amityville, NY 11701, USA Taunton, MA 02780, USA		Map Regions
Location Tracking	5 <sup>CL</sup>		Ka		18 Broadway	Asheville, NC 28801, USA Bayonne, NJ 07002, USA		- Z 7 Region 1
Job Ticketing	Ourt St 140		T and		18 Broadway	Newport, RI 02840, USA Deriville, NJ 07834, USA		Map Routes
Route Management			138					
RFID Tracker								
Text Messages	90 m	. Fice SQ	140	chool St				
Voice Recording	Recent Calls/Events		Chan in Paland	Citere D			Close	tails Show Not
Reports	Date	Radio System	Sender	Recipient		Message	Details	talis Show Not
Reports	09.06.2017 14:43:57	Radio System	Server	All		Message Connection to 'Capacity Plus 1' has been		
	09.06.2017 12:43:30	Capacity Plus 1	Administrator	11		Aspatcher 'Administrator' calls group '11		inistrator, 125
Event Viewer				11		Radio '125' calls group '11' (00:08)	Members: 125	
Event Viewer	09.06.2017 12:40:06	Capacity Plus 1	125					
		Capacity Plus 1 Capacity Plus 1	125 Administrator	11		Sispatcher 'Administrator' calls group '11	. Members: Adm	inistrator
	09.06.2017 12:40:06				1	Dispatcher 'Administrator' calls group '11 Dispatcher 'Administrator' calls group 'Po		

# 6.6.2.7 Drawing Panel

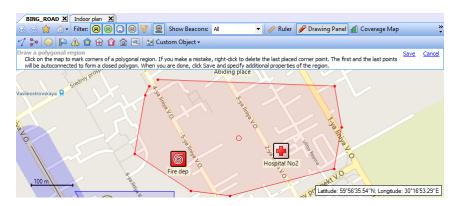
• Click *Prawing Panel* to display the Drawing toolbar:



# 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.



• Click the **Save** link to add a new polygon region.



Object on I	Map			×
General	Region	Logical Groups		
Name:		Zone 2		
Descript	ion:	becrete area		^
				$\sim$
			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 a	rea
Transparen	cy: 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

- Create Region by Coordinates
   X

   Image: constrained by constrai
- Click the **Add** link to add a point.

Coordinates input	-		$\times$
Coordinate system: Coordinates	Decimal Degrees		~
Latitude:	59.9419768 ° 30.2874584 °		
	ОК	Can	cel

#### 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.



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



- 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	Х
General Route Logical Groups	
Color: 255; 0; 255	
☑ Fill region area	
Transparency: 90 🚖 %	
Tolerance zone (m): 100 🔹 meters	
OK Cance	

# 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:		iBeacor	ı	•				
Name:		Coffee						
Major I	D:	1		* *				
Minor II	D:	1		* *				
Descrip	tion:	Coffee	shop at the	comer				
					_			_
						OK	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 **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 R 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 con will appear 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.

now Route			
			9
C @ 111		LimeGreen	
🖌 😥 125 (Pete		105, 105, 105	
<b>(€)</b> 222		RoyalBlue	
🗹 💰 235 (Basil)		Aqua	
🗌 🛞 Radio 200		SkyBlue	
🗆 🛞 Radio 201		DarkGray	
🗌 🛞 Radio 202		DeepSkyBlue	
🗆 🛞 Radio 203		DarkSlateBlue	
🗆 🛞 Radio 204		LightGreen	
🗆 🔊 Radio 240	mobile	Lime	-
0			:= -
Route Type:	Static		
	Show Route for La	ast: 48 📥 Hours	-
From:	22-Nov-2016 0:00		-
To:	<last known="" location=""></last>		•
Route Style:	Dots and lines with direction	•	
	Optimize Route (group all ne	earest points)	
	Automatic correct GPS erro	03	
	Configure	-	
	Show Events (telemetry, ala	(ata bag ang	
		anns and etc)	
	Show CanLog Events		
	Show CanLog Events		
	Show CanLog Events		



• In the list of radios, select a radio and the color with which to display the route for the radio.

#### Route Type

Select the route type, either Static or Dynamic.

#### Show 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.



R	adio	Date	Δ		(	GPS Dat	a	Speed	Events	
125	22-No	v-2016	10:17:17	Latitude: !	59°56'25	.88"N;	Longitude: 30°1	0.6 km/h	0	
125	22-No	v-2016	10:18:17	Latitude: !	59°56'25	.86"N;	Longitude: 30°1	0.0 km/h	0	
125	22-No	v-2016	10:18:47	Latitude: !	59°56'25	i. 16"N;	Longitude: 30°1	0.6 km/h	0	
125	22-No	v-2016	10:19:17	Latitude: !	59°56'25	i. 18"N;	Longitude: 30°1	0.4 km/h	0	
125	22-No	v-2016	10:19:47	Latitude: !	59°56'25	.27"N;	Longitude: 30°1	0.9 km/h	0	
125	22-No	v-2016	10:20:17	Latitude: !	59°56'25	i.37"N;	Longitude: 30°1	0.9 km/h	0	
125	22-No	v-2016	10:20:47	Latitude: !	59°56'25	i.37"N;	Longitude: 30°1	0.8 km/h	0	
	otal: 660									
		A ⊆	utomatic o onfigure	oute (group correct GPS ts (telemet	errors					
				og Events						
	Radio					Δ	Color			
4										
	111						LimeGreen			
1	125 (Pete)						105, 105, 10	15		
<b>9</b>	222						RoyalBlue			
	235 (Basil)						Aqua			
	Radio 200						SkyBlue			

- 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.

ocation Tracking	Map			Playback	Route						×	-
i 🗄 🛓 🗶 💙 🖉 Ø Ø	Intercom		St: Line free	Radio 125 125	22-Nov- 22-Nov-	2016 10:21:47	Latitude: 59*56'25.38' Latitude: 59*56'25.39'	N; Longitude: 30°1 N; Longitude: 30°1	0.3 km/h		•	
Image: Second state     Image: Second state       Image: Second state     Image: Second state       Image: Second state     Image: Second state	Private Call		C and D	125 125 125	22-Nov-	2016 10:22:47	Latitude: 59*56'25.41' Latitude: 59*56'25.42' Latitude: 59*56'25.42'	N; Longitude: 30°1	0.0 km/h	0		
Online, Indoor (0) Online, GPS Fixed (2)	BING_ROAD X Ind		🛛 🍸 🖋 Drawing Pa	125 125 Total	22-Nov-		Latitude: 59*56'25.42' Latitude: 59*56'25.43'					
★ ● 125 (Pete)         Q □ ↓           ★ ● 235 (Basil)         Q □ ↓           Online, No GPS (1)         0						22-Nov-2016	ort 💌			Load	02	e 2 tment No
Voice Dispatch			°		To:		location > oute (group all nearest ; correct GPS errors	points)		•		
Job Ticketing	_30 m		125			Configure Show Ever	nts (telemetry, alarms ar .og Events	d etc)				
j Route Management				Ra	dio			△ Color				
RFID Tracker	Recent Calls/Events	- 进 Print   💷 I	Pause 🥩 Clear - 🆏	M 11				LineGreen			•	e
] Text Messages	Date 22-Nov-2016 15:22:3		Dispatcher 1	22	2			RoyaElue	15			
Voice Recording		D	235 235 235	Ra Ra	dio 200			SkyBlue DarkGray				
Reports	<ul> <li></li></ul>	0	235	Sele	xt Al	Unselect All	]					
Event Viewer	22-Nov-2016 12:57:1	19 1 10 10 4		235			Dispatcher 'Dispatcher .					Þ
Radio Allocation	Recent Calls/Events Re	ecent Calls Requ	est to Talk Radio State	Active T	asks Active	Routes User	Activity Beacons	Beacon Events Tag	List			

#### 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.

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>6.4.5.7</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 doverage Map

ocation Tracking	Мар						🛓 🔄 🖬 🛄 🖉	objects	
li 🗄 li 💰 🛠 🌱 🖉 🎜 🔇			0 1: Line free	•0	Al Cal		[	11 li	
A Online Dispatchers	Group 10 Private Call		Group 20		Group 30			- V 😂 Beacons - V 🎯 Deer - V 🎯 Coffee	
Online, Indoor (0)     Online, GPS Fixed (2)	BING_ROAD 🗶 In	doorplan 🗴 ten: 阁 🔘 💭 🙆	Y 🛞 Show	Beacons: Al	👻 🥒 Ruler	Prawing Panel d Cov	erage Map 👋	-V Goffee 2	
(2)         (2) <td></td> <td></td> <td></td> <td>- An</td> <td>Select RSSI data Start Date:</td> <td>15-Nov-2016 16:39</td> <td>×</td> <td>Map Objects     Map Objects     Abiding place     Fire dep     Hospital No2     Police depart</td> <td>2</td>				- An	Select RSSI data Start Date:	15-Nov-2016 16:39	×	Map Objects     Map Objects     Abiding place     Fire dep     Hospital No2     Police depart	2
Voice Dispatch				( i	Rado:	Selected Radios: 2			
Location Tracking	Excellent Normal Satisfactory		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	235 (Basil) Walt 125 (Pete)	2	III € 111 III (1) 125 (Pete)	-	- C 2 Map Routes	
🔓 Job Ticketing	Poor Bad	1			4	☐ (£) 222 ☑ (£) 235 (Basil)		- 🛄 🗫 Route 2	
👸 Route Management	100,m	20		B-1 a Hunda	Bolishoy P	ttude: 53 (f) Radio 200	_		
RFID Tracker	Recent Calls/Events	- 🕀 Print   II Pau	ise 🦪 Clear - 🗑		ter By Radio 🛛 🚟 Grou	eing	-	Details Show Note	6
Text Messages	Date 22-Nov-2016 15:22:	Radio System	Sender Dispatcher 1	Recipient 235	Message Private Call: D	@ 0	- Ra	Mate .	_
Voice Recording	22-Nov-2016 12:58:		235	Al	Reset Geofen	icing Alarm ng - Monitor Area 1, M		gical Groups dio Groups	
Reports	22-Nov-2016 12:58: 22-Nov-2016 12:58:		235 235	AI AI		wed region 'My zone' wed region 'My zone'			
Event Viewer	22-Nov-2016 12:58: 22-Nov-2016 12:57:	11 CapacityPLUS	235 Dispatcher 1	Al 235		larm (GPS Date: 22-No Dispatcher 'Dispatcher Membe	rs: Dispatcher 1, 2	35	
Radio Allocation	HI HI I Record 1 of		In Talk Parlo St	Artice Tasks	Arthur Druden - Unar	Activity Beacons Beacon Ev	ante Tan List		Þ

For more details on configuring the Coverage Maps, see section <u>Coverage Map</u> (page 119).

#### 6.6.2.11 Select Map

On the Map toolbar, click Select Map

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

- Enter the **Caption** of the map that will be displayed in the active tab.
- In the list of **Available Maps**, choose the map to be displayed.
  - Note: For more details on available map types, see section <u>Map</u> <u>Types</u> (page 110).

#### 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 Ticketing	👲 🚳 🔽
💼 🗄 🗄 🍰 斜 🗶 🍟	🐼 1: Line free 🛛 📢 🔽 Intercom 🔊 🐗 🥥	
🛛 📑 Firemen 🛛 📮 🎴	Group 10 →	
★ ● 125 ● ■	🖉 Group 20 🔊 🛋 🖉 🖉 Group 11 🔊 🛋 🥥	
🐔 💌 235 🛛 🔍 📮 🗖	Group 22 •)) ● Private Call •) ● ●	
😑 📕 Police 📃 🖃 🖾	Job Ticketing Statuses Custom Fields Templates	
La Voice Dispatch	📑 Add (F2) 🔹 📑 Edit (F4) 🌜 Assign (F5) 📑 Grouping 🍸 Auto Filter 🧇 De	fault Settings 🎇
Tele Polec Dispatcal	Status ID Text Specified End Time	City
Location Tracking	x New #A00006 Check the pipe in 07.05.2017 15:40:00	Mo
	* New #A00007 Medium, Check the	St
📲 Job Ticketing 🛛 👡		
Route Management	H4 44 4 Record 1 of 2 1 3 3 3 4 4	Þ
RFID Tracker	Processing tasks:	
1	Status ID Start Time End Time	Specified
Context Messages	+ Accepted #A00008	
	→ Assigned #A00009	
🔮 Voice Recording		
Reports		
Event Viewer	H4 44 4 Record 2 of 2 > >> >> 4	•
🔂 127.0.0.1 🔉 🔂 🦉 Administr		Active -

# 6.7.1 Adding a Status for Job Ticketing

• In the **Job Ticketing** pane, click the **Statuses** tab to see the statuses available for job tickets.

Name	Description	Status
New		☆ New
Cancelled		× Cancelled
Assigned		→ Assigned
Accepted		+ Accepted
Rejected		- Rejected
Completed		✓ Completed
Progress		In Progress

• Click the **Add** button to add a Job Ticket status.



Job Ticket Statu	s X	(
Name:	Accepted	
Description:	Accept	
Status:	+ Accepted	
	+ Accepted	Ĺ
	Completed     G In Progress	ŀ
	- Rejected	

#### Name

Specify a Job Ticket status name to display in the system.

Note: The **Name** value must match the value of the corresponding *Action/Response* field configured for a radio in *MOTOTRBO CPS, Job Tickets*.

#### Description

Add a description for the job ticket status.

Status

From the drop-down list, select the Job Ticket status.

# 6.7.2 Adding Custom Fields for Job Ticketing

In addition to the default fields (Priority, Deadline, etc.), you can add custom fields with pre-defined values to be used in tickets/ticket templates.

• In the **Job Ticketing** pane, click the **Custom Fields** tab to see the list of custom fields available for job tickets.

Job	Ticketing	Statuses Custom	Fields Templates
🛃 Ade	d 🌗 Eo	lit 🛃 Delete	
Name		Values	
Town		Kotka;Hamina;Loviisa	
Quality		High;Low;Middle	N

|--|

• Click the **Add** button.

Job Ticket C	ustom Field	×
Name:	Town	
Values		
Kotka		
Hamina		
Loviisa		
		Total: 3
🖶 Add 🔀	Delete	
		OK Cancel



In the Job Ticket Custom Field dialog box, specify the following:

Name

Enter a name for the field.

Values

Click the **Add** link and enter a pre-defined value for the field.

### 6.7.3 Creating a Job Ticket

• In the **Job Ticketing** pane, click the **Job Ticketing** tab to see the list of created job tickets.

ł	Add (F2		(F4) 🐒 /	Assig	n (r .	<i>י</i> ן ני	- 010	uping		uto Filter 🌼 Def	aun sen	nys statu	s coloi	2			
	Status	ID I	Text				Pe	Cr	Specifi	ied End Time		Created By	Prio	. C			Qu
*	New	#A00007	Medium,	Chec	k the	pi		07				Administrator	Medi.				
¢.	New	#A00010	Medium	%City	%			07				Administrator	Medi.				High
	44 4 Re ocessing			4													
				<b>∢</b>			Start Tim	ne		End Time		Specified End	Time				
	cessing	tasks:					Start Tin	ne		End Time		Specified End	Time	••••	_	•••	

HI HI H Record 1 of 2 + H HI H

Þ

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

Note: To create a ticket from a template, click the arrow on the right of the **Add** button to select from the available ticket templates. For directions on how to create templates, see section 6.7.4.

Job Ticket	×	(
Ticket ID:	#A00000	
Priority:	Medium ~	
Deadline:	21.04.2017 11:54	
	+5min +10min +30min +1hour	
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 Option	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 🗙 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	
Notify Dispatchers	
Administrator	
Dispatcher 1	
Dispatcher 2	
ок с	ancel
OK C	uncor

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 (clcik 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%			

- Click the **Templates** tab to see the list of templates available for job tickets.
- Click the **Add** button to create a ticket template.
- In the Job Ticket Template dialog box, fill in the desired fields, and click OK.

Note: For information about the fields, see section <u>6.7.3, 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											
	Status	ID	Text	Δ			Specified End Tin	ne	Γ		 	Town
☆	New	#A00010	Medium %City%	6								Kotka
☆	New	#A00007	Medium, Check									St.Peter.

In the Select Job Status Color dialog box that opens:

_						
Se	elect Job Status Color				×	
	Status	Color				
	New		Yellow	/Green	-	
	Cancelled	Cu	stom	Web	System	
	Assigned		DarkK	haki		*
	Accepted		Beige			
	Rejected			Goldenro	dYellow	
	Completed		Olive			
	Progress		Yellov			Π
			Light'	ellow	1	0
	Expiring Job Ticket		Olive	Drab		
	Time to complete Job Ticket (minute		Yellov	Green		
				liveGree	n	
	Color:			Yellow		
			Chart	reuse		 Ŧ
			De	fault		
_		_				
		K		Cancel		
	0	NX.		Cancel		

• 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**.

	Status	ID	Text		Pe	Cr	Specified End Time	Created By	Prio	C	 Qu
¢	New	#A00007	Medi			- <b>-</b>  -		Administrator	Medi		 -
¢	New	#A00010	Medi	Assign				Administrator	Medi		 High
	•• • R	ecord 1 of 2		<ul> <li>Cancel</li> <li>Archive</li> <li>Create Bas</li> </ul>	ed on			 			 <u>)</u>
				🗼 Archive	ed on			 			
				Archive Create Bas Resend			End Time	 Specified End	Time .		 •
	ocessing	tasks: ID		Archive		•	End Time	 Specified End			 •••••••••••••••••••••••••••••••••••••••

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



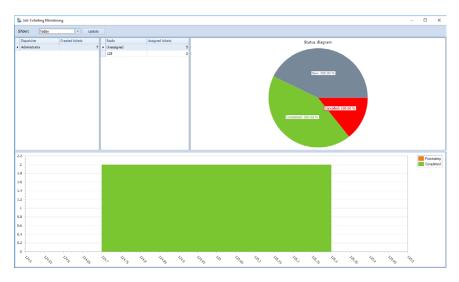
Assign Job	Ticket		×
K Assi	gn Job Ticket		
Radio:	€       111         ✓ €       125 (Pete) 125         €       222         ✓ €       235 (Basil) 235         €       Radio 200         €       Radio 201         €       Radio 202         ∅       □		•
		ОК	Cancel

- In the list, select a radio, radio group 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(s) will receive the job ticket.

# 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 **Common Reports** (2) **Job Ticketing** (3).
- On the **Common reports** pane, click the **Query parameters** tab, and specify the appropriate parameters and then click **Generate Report**.
- Click the **Job Ticketing** tab to see the generated report.



eports	•	Commo	n reports									<b>9</b>
Common reports 2	^	Group			31: Line free Group 30					Group 10	•) • Ø	
- [] State of Radios - [] User Messages and Notes - [] Radio Allocation - [] Radio Disabling	2	Query ; 8'8 G		Job Ticketing 🗙 % 💌 🍳   🛛	 	〕- � ⊠	<b>≧</b> • ⊠•					
Telemetry Telemetry State of Radios Summary Cano Worker Activity Cano graphics Cano Tracesges 3	v			icketing								
Voice Dispatch			Ticket ID	Text	Performer	Status	Creation Time	Start Time	End Time	Specified End Time	Created by	Priority
Location Tracking			#A00000	%PRIORITY%% PRIORITY%		New	07-Nov-2016 14:04:31			07-Nov-2016 14:19:00	Administrator	Medium
🔓 Job Ticketing			#A00001	%PRIORITY%		Accepted	07-Nov-2016 14:04:58		07-Nov-2016 14:49:55		Administrator	Medium
🕅 Route Management			#A00002	%DATE%		Assigned	07-Nov-2016 14:25:12		07-Nov-2016 14:50:09		Administrator	Medium
RFID Tracker			#A00003	%TIME%		Accepted	07-Nov-2016 14:25:25		07-Nov-2016 15:00:35		Administrator	Medium
Text Messages			#A00004	jkg		Assigned	07-Nov-2016 15:01:59		07-Nov-2016 15:17:57		Administrator	Medium
Voice Recording			#A00005	Abc		Assigned	07-Nov-2016 15:18:13		07-Nov-2016 15:21:07		Administrator	Medium
Reports	-	- 1	#A00006	123	125 (Cleaning 1)	Completed	07-Nov-2016 15:29:19		07-Nov-2016 15:35:02		Administrator	Medium
Event Viewer			#A00007	456		New	07-Nov-2016 15:38:32				Administrator	Medium
Radio Allocation			#A00008 Duration	∨isit mortre <b>1</b> :		Completed	07-Nov-2016 15:38:39	07-Nov-2016 17:58:21 02:19:41	07-Nov-2016 17:58:49		Administrator	Medium
			Duration						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 Monop         <
	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	
	Route Points   Checkpoint Statuses   Notifications   Tags   Logical Groups	
Start Route		:
Manually by e		
	r by receiving Text Message from a radio	
Message:	12 by receiving Telemetry Command from a radio	
VIO:	1 Command: Any event	
	v by receiving DTMF command from a radio	
Command:	123 #123#	
	123 #123#	
	0 +	
Status:	0 -	
Wait for co	nfirmation from a radio	
Pause Route		
Pause Route Resume Route		:
Pause Route Resume Route Finish Route		:
Pause Route Resume Route Finish Route	dapatcher	:
Pause Route Resume Route Finish Route Manually by o Automatically		:
Pause Route Resume Route Finish Route	spatcher by receiving Text Message from a radio	:
Pause Route Resume Route Finish Route	sispatcher by receiving Text Message from a radio by receiving Telemetry Command from a radio	:
Pause Route Resume Route Finish Route Manually by a Automatically Message: Automatically VIO:	Ispatcher by receiving Text Message from a radio by proceiving Telemetry Command from a radio to Command: Any event	:
Pause Route Resume Route Finish Route Manually by a Automatically Message: Automatically VIO:	sispatcher by receiving Text Message from a radio by receiving Telemetry Command from a radio	:
Pause Route Resume Route Finish Route Manually by ( Automatically Message: Automatically VIO: Automatically Command:	dispatcher by receiving Text Message from a radio by receiving Telemetry Command from a radio to receiving DTMP command: from a radio	:
Pause Route Resume Route Finish Route Manually by ( Automatically Message: Automatically VIO: Automatically Command:	Ispatcher by receiving Text Message from a radio by proceiving Telemetry Command from a radio to Command: Any event	:
Pause Route Resume Route Finish Route Manually by ( Automatically Message: Automatically VIO: Automatically Command:	dispatcher by receiving Text Message from a radio by receiving Telemetry Command from a radio to receiving DTMP command: from a radio	
Pause Route Resume Route Finish Route Manually by (     Automatical), Message: Automatical), VIO: Automatical), Command: Automatical), Status:	dispatcher by receiving Text Message from a radio by receiving Telemetry Command from a radio to receiving DTMP command: from a radio	
Pause Route Resume Route Finish Route     Manually by (     Automatically     Message:     Automatically     VIO:     Automatically     Command:     Automatically     Status:     Automatically	dispatcher by receiving Text Message from a rado by receiving Telemetry Command from a rado tree Command: Any event v by receiving DTMF command: from a rado by receiving Status from a rado	:
Automatically     Command:     Automatically     Vio:     Automatically     Vio:     Automatically     Vio:     Automatically     Status:     Automatically     Status:	dispatcher by receiving Text Message from a radio by receiving Telemetry Command from a radio by receiving DTMF command from a radio by receiving Status from a radio by receiving Status from a radio after all points have been attended	2

#### • 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.

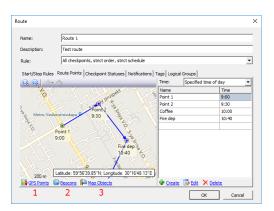
#### Automatically when all points have been attended

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:

1ap Type:	Online maps		
Caption:	Му Мар		
vailable Maps			
Name	Path		State
MAPNIK			OK
CYCLE			OK
TRANSPORT			OK
LANDSCAPE			OK
BING_ROAD			OK
BING_AREA			OK
BING_HYBRID			OK

- Select the map. For more details on map types, see section <u>Map Types</u> (page 110).
- 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>5.9.2 Services</u> on page 29).<u>Services</u>
- In the **Configuration** pane, under **Digital Systems**, select **Services**:

Name:	Route 1				
Description:	Test route				
Rule:	All checkpo	ints, strict order, strict sche	edule		
Start/Stop Rules	Route Points	Checkpoint Statuses   Noti	ifications   Tags   Logica	al Groups	
Beer			Time:	Specified time of	day
Coffee			Name		Time
🥪 Tea			Point 1		9:00
			Point 2		9:30
			Coffee		10:00
			Fire dep		10:40
			Tea		10:50
GPS Points				: 🕞 Edit 🗙 Dek	

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

Point properties		×
Name:	boffee	
Beacon:	🚱 Coffee	-
Radius:	meters	
T Intermediate	way point (not served)	
Time:	10:00	
Time delta:	5 minutes	
	OK	Cancel

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

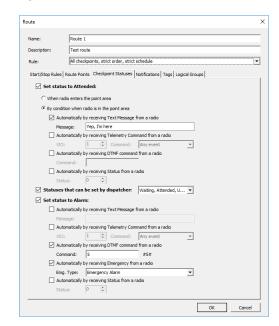
Route							×
Name: Description:	Route 1 Test route						
Rule:	,	ints, strict order, strict		anel Lonica	Groupe		•
Abiding place		[ checkpoint bibliobes ]	- Tourications	Time:	Specified tin	ne of day	-
Tire dep				Name		Time	
Hospital No2				Point 1		9:00	
Police departm	ent No 1			Point 2		9:30	
				Coffee		10:00	
				Fire dep		10:40	
GPS Points	Beacons	A Map Objects		· Create	<b>₽</b> ₩ ×	Delete	
					ОК	Can	:el

• Click the **Create** link and then click an object in the list.

Point properties		$\times$
Name:	Fire dep	
Map Object:	Tire dep	•
Radius:	10 meters	
Intermediate	way point (not served)	
Time:	10:40	
Time delta:	5 iminutes	
	OK	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:			
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 order,	strict schedule	
Start/Stop Rule	s Route Points Checkpoint Stat	uses Notifications Tags Logical Groups	
Name		Description	
🖃 🗆 📴 Clean	ing		
🖌 🦢 O	leaning 1	Cleaning in Department 1	
L 🗁 d	leaning 2		
E De 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>6.4.21, Logical Groups</u> (page 237).
- Click **OK** to save settings.

The new route is now added to the route list (1):

# 6.8.2 Starting a Route

File View Map Tools Help	
Route Management	Route Management 🔮 🏽 🕻
🕨 Start 🛛 II Pause 📕 Stop	🚱 1: Line free 📲 🖉 🖉 Intercom 🗐 🖷 🖉 Group 10 🗐 🖷 Ø
▶ Route 1 00:07 235 31.05.2017 14:58	▲ Cal         d. ۯ         ▲ Group 20         € €Ø         ▲ Group 11         € €Ø           ♥ Group 22         € €Ø         ■ Private Cal         € €Ø         ■         ●
	Management Monitoring
Voice Dispatch	Name         Route           Route 1         15:00         15:15         15:30         16:00           Test muse         Sign 1         Sign 1         Sign 1         Sign 1
😵 Job Ticketing	
Route Management	1 2
Text Messages	
🔮 Voice Recording	Hit (H) ← Record 1 of 1 → H) Hit (A           Active Routes
Reports	▶ Start         II         Pause         ■ Stop         □         Edit         ④ Export ~         ■ Grouping         Y Auto Filter         ◎ Default Settings           Name         Route
Event Viewer	▶ Route 1         00:07         15:00         15:15         15:30         16:00           235         31:65:2017 14:58         31:6
1 Telemetry	
Radio Allocation	144 44 Record 1 of 1 > >> >> 44
🔂 127.0.0.1 🛞 🥵 🙎 Administrator 📗	🗄 Licensed to: demo 🥑 Active

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



Start Route		×
Name: Start Date:	Route 1	
Route:	Route 1	
Radio:	🚯 125 (Pete) 125	
Radio Owner: Dispatcher:		- -
	0	

In the Start Route dialog box, specify the following parameters:

#### Name

Enter a name for the route to be started. This name will be displayed in the **Active Routes** pane.

• Start Date

Select a date to start the route on.

Route

From the drop-down list, select the route to start. Click the **Create Route** button to create a new route based on the selected route. Click the **Modify** button to modify selected route parameters.

Radio

From the drop-down list, select the radio to assign the route to.

Radio Owner

From the drop-down list, select the <u>Users</u> to assign the route to.

Note: Select only one of the two (**Radio** or **Radio Owner**) to prevent an incorrect route.

Dispatcher

From the drop-down list, select the dispatcher to monitor the route.

• Click **OK** to start the route.

The active route appears (1) in the **Active Routes** panel.

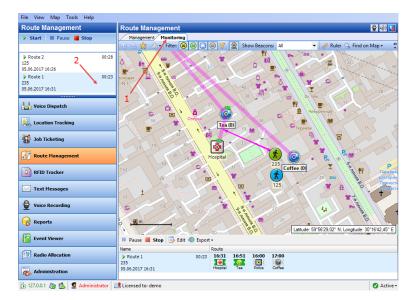
File View Map Tools Help		
Route Management	Route Management	👲 🕪 🕒
🕨 Start 🛛 II Pause 📕 Stop	🛞 1: Line free	
▶ Route 1 00:37 235 31.05.2017 14:58	☑ Al Cal         III @ Ø         ☑ Group 20         III @ Ø         ☑ Group 11           ☑ Group 22         ☑ @ Ø         Private Cal         ☑ @ Ø         ●	•) •: 0
	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 15:30 16:00 Test route @ @ @ @ @ Coffee Hospital Tes Police	
😴 Job Ticketing		
💓 Route Management		
RFID Tracker	1	
Text Messages	I will a Record 1 of 1 b J Will a	•
Uvice Recording	Active Routes	
😪 Reports	▶ Start         II         Page         Stop         ⇒         Edit          ©         Edit         Stop         E         Grouping         Y         Auto Filter         ©         Default Sett         Name         Route	ings
Event Viewer	koute 1         00:37         15:08         15:15         15:30         16:00           235         235         235         100	
Telemetry		
Radio Allocation		Þ
🚯 127.0.0.1 🍇 🥵 💆 Administrator 🛛	Licensed to: demo	🕑 Active -



If a route point is attended in time, it is displayed in green (2) If a route point is not attended in time, it is displayed in red (3). For more operations with checkpoints, see section <u>6.5.8.6</u>, <u>Active Routes</u> (page 277).

# 6.8.3 Tracing Active Route on Map

• In the **Route Management** pane, click the **Monitoring** tab (1).



• In the upper-left pane, select the route (2) to be traced on the map.

# 6.8.4 Stopping a Route

Depending on the route configuration settings, a route/guard tour can be stopped automatically:

- by a command sent from the radio;
- when all checkpoints are attended;
- when the route time is elapsed.

To manually stop the route:

• Click the **Stop** button to stop the route. Once the route is stopped, it will disappear from the **Active Routes** panel.

After the route is stopped, the checkpoint statuses cannot be modified neither automatically, nor manually.

#### 6.8.5 Generating Route Reports

The administrator can generate reports on the finished routes.

 Click the Reports (1) tab, and in the Reports pane select Common reports > Completed Routes (2):



Reports       Common reports         CAM Messages       Common reports         Cold Service       Status free         So Totaketing       Participation         So Totaket Response       Response Totaket         So Totaketing       Participation         So Totaket Response       Response Totaket         So Totaket Response       Response         Management       Index response         Index response       Sect data by period:         State Totaket       State Totaket         So Totaketing       Filter:         Response       Intercom         Response       Intercom         Response       Intercom         Response       Sect data by period:         State Totaket       Sect da	File View Map Tools Help		
CAM Graphics       Camposities         CAM Graphics       Camposities         Sob Tober of the Assignments       Sob Status Changes         Sob Status Changes       Camposities         Sob Tocketing       Saret Data         Sob Tocketing       Filter:         Rado:       - Voit defined         Sob Tocketing       - Not defined         Sob roucets with eccep	Reports	Common reports	👲 🐠 🛂
Consistent Route       Full Movement Details       Completed Routes       Saved Profiles:       How reports       Woken Details       Saved Profiles:       How reports       Saved Profiles:       How routes       Saved Profiles:       How routes with exceptions only       Profiles:       How routes with exceptions only       Print detailed data       Construction Branch Routes       Saved Nameath Indiffi	CAN Graphics CAN Messages Dob Ticketing 2	Sales         0.40         Ø Graup 10         0.40         Jdap           DMERCENCY GROUP         0.400         Regular GGROUP         0.400         Group 20	0 * 0
Saved Profile:tot defined   Solute Dispatch Saved Profile:   Saved Profile:tot defined   Start Date:tot defined   Solute Hanagement Logical Group:   Route Hanagement Logical Group:   Text Messages Uder:   Voice Recording Dopatcher:   Poports Solute with exceptions only   Print detailed data Print detailed data	Completed Roules Completed Roules Full Movement Details Security reports Management	Group 1 🕖 🕊 🖉 Private Call 🖉 🕊 🖉	
Start Dete:   Location Tracking   Start Dete:   Data:   Hiter:   Rado:   Pilter:   Rado:   Pilter:   Rado:   Text Messages   Voice Recording   Dipatcher:   -Not defined   Dipatcher:   -Not defined   Route Name:   Corrects   Point Newer   Show routes with exceptions only   Print detailed data   Corrects Detailed data	Movement Details v	Saved Profiles:Not defined	
in Job Ticketing     Radio:     -Not defined     Logical Group:     -Not defined     Radio:     Text Messages     User:   -Not defined   Dispatcher:   -Not defined   Dispatcher:   -Not defined   Route Name:   Show routes with exceptions only   Print detailed data     Construct Instruct Instruction Constructions   Print detailed data		Start Date:         10/10/2016 12:00 AM         ···           End Date:           ···	
✓ Text Hessages       ✓ Voice Recording       Department       → Not defined       ✓ Reports       ✓ Event Viewer       ✓ Show routes with exceptions only       ✓ Print detailed data       1	~	Radio:Not defined 💌	
Dispatcher:     -Not defined-       Reports     -Not defined-       Show routes with exceptions only     Show routes with exceptions only       Print detailed data     1			
Radio Allocation     Print detailed data     Department Department     Depar	-		
Administration Generate Report Save Report Profile Delete Report Profile		N The second sec	
访 Connected 🔉 🔂 🙀 🕺 Administrator 📑 Licensed to: demo Demo License 🕜 Active	-		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	🔮 🚸 🔽
💼 🗄 🐁 🗶 🏹 🗇 🗗 🚽	Intercom 🕫 📢 💿 1: Line free 🖷 🕢 🗖 Al Cal	•) • Ø
□ Firemen 📮 ^	▲ Group 10         ■ € € Ø         ▲ Group 20         ■ € € Ø         ▲ Group 30           Private Call         € € € Ø         €         € Ø         Ø	) . ()
125 (Pete)       Image: Constraint of the second seco	Simple Extended	^
Voice Dispatch	21-1v     400     Online Dispatchers       21-1v     400     General	
Location Tracking	21-19 2% Firemen 21-19 2% Police 2 111	
30b Ticketing	21-4 2 125 (Pete) 222	
Route Management	22-4 3 235 (Baal) C 3 Radio 200 201 8 Radio 201	
RFID Tracker	C 8 Radio 202	- 1
Text Messages	¢ 12. Radio 204	- 1
Voice Recording	CZCTCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	~
Reports	Recipient: 🎎 Firemen 🔤 🔛 Send 🖉 Attach File	
Event Viewer	STARK # 101 HPE	
Telemetry		
Radio Allocation		106
🔂 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.
- 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	A 🗐
	Send Message
	Advanced
<b>*</b> 🔊 12	Specify Status Colors
* 22	VIO1: High level
📌 🕒 23	VIQ2: 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:	~ <b></b>
Text:	Shack # 1 is on fire
	105
Attachments:	0 Add File
Select Radios and (	Groups
Filter:	Q
🔽 🎎 Firemen	<b>^</b>
🔲 🤽 Mobile C	Client
🔽 🤽 Police	=
🔽 🍓 Online 🛙	
Cleaning	g 🗸 🚽
Send copy by En	nail
Send copy by SM	IS
Send to offline ra	adios
Confirmed Group	Text
Hide Advanced O	SEND Cancel

#### Target

This box displays the target for the message.

- In the **Text** box, type the message text. You can insert a template text from the **Templates** list box.
- In the Target list, add recipients by selecting radios/radio groups/logical groups/dispatchers.
- Send to offline radios

Select this option to store the message on the server if a radio is offline, and to send it as soon as the radio becomes online.

• 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

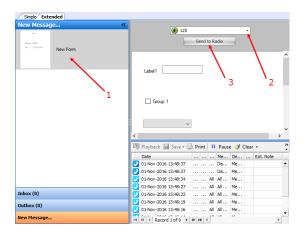


service. Also note that an extended message can only be viewed on a Dispatch Console.

#### 6.9.2.1 Send Extended Text Message to a Radio

ex 🖌 Show Navigation	Text Messages								<b>\$</b>	] 🕪
Show Modules	Intercom		> 1: Line fr		•0				•) •	
Show Voice Panel			~			_	_	_		_
Large PTT Boxes	Group 10		Group 20			Grou	p 30	_	•)) 46	Ø
Small PTT Boxes	Private Cal									
Show Extended Messages Tab	Simple Extended									
🖍 🛞 Radio 240 m 2 💷 😵	New Message		<b>«</b>							
					125 🛞				*	
Voice Dispatch					-	Send to R	adio			
Location Tracking	- New For	rm	, in the second s				<b>1</b>			_
- •						New Fo	m	<u>\</u>		
🐕 Job Ticketing								5		
Job Ticketing	-	3						5		
~		3	8	٤				5		>
Route Management	1	3	8.	🚳 Playback	k 🛃 Save - (	🖢 Print	11 F	Pause 🦪		-
Route Hanagement REID Tracker Text Hessages	1	3	Ē	Playback Date				Pause 🥥 Mes	Details	• N
Route Management	1	3	đ	Date	016 11:13:21	 C 2	 35 All	Pause 🥥 Mes All C	Details Mem	-
Route Hanagement       RFID Tracker       Text Hessages       Voice Recording	1	3	Ē	Date 21-Nov-2 21-Nov-2		 C 2: C 1:	 35 All 25 All	Pause 🥥 Mes All C	Details Mem	• N
Route Management RFID Tracker Text Hessages	1	3	Ē	Playback Date 21-Nov-2 21-Nov-2 21-Nov-2	016 11:13:21	C 12 C 12	 35 All 25 All 25 All	Pause Sause All C	Details Mem	• N
Route Hanagement       RFJD Tracker       Text Hessages       Voice Recording       Event Viewer	1 Inbox (0)	3	8	<ul> <li>Playback</li> <li>Date</li> <li>21-Nov-2</li> <li>21-Nov-2</li> <li>21-Nov-2</li> <li>21-Nov-2</li> <li>21-Nov-2</li> <li>21-Nov-2</li> <li>21-Nov-2</li> <li>21-Nov-2</li> </ul>	016 11:13:21 016 11:13:12 016 11:13:09 016 11:08:19 016 11:08:18	C 2: C 1: C 1: C 1: C 5. C 5.	 35 All 25 All 25 All 125 125	Pause Mes All C All C	Details Mem	• N
Route Hanagement       RFID Tracker       Text Hessages       Voice Recording		3	8	Playback           Date           21-Nov-2	016 11:13:21 016 11:13:12 016 11:13:09 016 11:08:19 016 11:08:18 016 10:56:55	 C 2: C 1: C 1: C 5. C 5. C 5.	 35 All 25 All 25 All 125 125 35 All	All C All C All C All C The Rese	Details Mem Mem	• N
Route Hanagement       RFJD Tracker       Text Hessages       Voice Recording       Event Viewer	1 Inbox (0) Outbox (0) Rev Message	3		Playback           Date           21-Nov-2           21	016 11:13:21 016 11:13:12 016 11:13:09 016 11:08:19 016 11:08:18	 C 2: C 1: C 1: C 5. C 5. C 5.	 35 All 25 All 25 All 125 125	Pause Mes All C All C All C The The	Details Mem Mem	• N

- Click Text Messages (1)
- Click the View menu, and select Show Extended Messages Tab (2)
- In the Text Messages pane, click the Extended tab (3), and New message (4).



- Select the template in the list (1).
- 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 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.

ice Record	ling			9	Playback 🛃 Save - 🧯	🖢 Print   🚟	Grouping	Y Auto Filt	ter 💿 Default Setting	s 🛛 🚰 Details 🛛 🧮	Show Note	s
					Date	Radio Sy	Sender	Recipient	Message	Details	Note	ī
Select data by			_		17-Nov-2016 18:37:28	Capacity	Administr	235	Private Call: Dispat	Members: Adminis		
Start Date:	16-Nov-2016 0:00	•		0	17-Nov-2016 18:47:41	Capacity	Tel: 2409	125	Private Call: Dispat	Members: Tel: 24		
End Date:	24-Nov-2016 0:00	-			17-Nov-2016 19 59:46	Capacity	Administr	Radio 24	Private Call: Dispat	Members: Adminis		
Filter:				0	17-Nov-2016 19:59:56	Capacity	Administr	Radio 24	Private Call: Dispat	Members: Adminis		
					17-Nov-2016 20:30:22	Capacity	345	125	Private Call: Dispat	Members: 345, 125		
Call Type:	Private Call		-		17-Nov-2016 20:30:42	Capacity	456	235	Private Call: Dispat	Members: 456, 235		
Radio System:	Al		-		17-Nov-2016 20:30:52	Capacity		345	Private Call: Subscr			
Members:	AL	-	Ŧ		17-Nov-2016 20:32:46	Capacity	456	235	Private Call: Dispat	Members: 456, 235		
				-	17-Nov-2016 20:32:54	Capacity		456	Private Call: Subscr			
Radio Group:	Selected items: 1		-		17-Nov-2016 20:33:06	Capacity	345	235	Private Call: Dispat			
Logical Group:	Al		-		17-Nov-2016 20:33:14	Capacity	345	235	Private Call: Dispat	Members: 345, 235		
			_		17-Nov-2016 20:34:58	Capacity	456	235	Private Call: Dispat			
ladio ID (e.g. 22,	33,40-55,88):		_		17-Nov-2016 20:37:00	Capacity		235	Private Call: Dispat			
					17-Nov-2016 20:37:12	Capacity	345	235	Private Call: Dispat			
ind Text:					17-Nov-2016 20:39:23	Capacity	456	235	Private Call: Dispat			
					17-Nov-2016 20:40:16	Capacity	235	456	Private Call: Subscr			
Hide zero sessio	on audio message				17-Nov-2016 20:40:50	Capacity	235	456	Private Call: Subscr			
				0	17-Nov-2016 20:42:05	Capacity	345	125	Private Call: Dispat			
Load Data	-				17-Nov-2016 20:42:11	Capacity	456	235	Private Call: Dispat			
					17-Nov-2016 20:44:00	Capacity	125	345	Private Call: Subscr			
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				17-Nov-2016 20:45:07	Capacity	125	456	Private Call: Subscr			
<i>,</i>				0	17-Nov-2016 20:48:46	Capacity	125	456	Private Call: Subscr	Members: 125		
Job Ticketine				0	17-Nov-2016 20:49:05	Capacity	125	345	Private Call: Subscr	Members: 125		
,	<b>,</b>				17-Nov-2016 20:49:14	Capacity	125	345	Private Call: Subscr			
Route Manag	nomont				17-Nov-2016 20:49:30	Capacity	125	345	Private Call: Subscr			
Koute Hallay	gemenc				17-Nov-2016 20:49:49		125	456	Private Call: Subscr	Members: 125		
· · ·				144	44 4 Record 4 of 45	<b>F H4 44</b>					•	
RFID Tracke	·											i
-		_				Administrator				Date: 17-Nov-2	016 19:59:56	
Text Messag	les				Recipient:	Radio 240 mol	we			Fig Playt	ack 📙 Save	t
					rivate Call: Dispatcher 'Ad	ininistrator' ca	is the radio Y	Radio 240 mo	bie' (00:10)			
Voice Record	ling		*		4embers: Administrator, R							
					1							
Reports					- <b>1</b>							

- 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).

# 6.11 Reports

The Reports tool provides you with various printing forms with monitored radio network activity data.

• Click the **Reports** tab (1).

Reports		System reports 🔮 🕷
Queries System reports Registered Radios Unregistered Radios Registered Radios User Connection History	< >	It line free         B.D.         Mercon         C.B.D.         Mentmace         C.B.D.           SNM         C.B.D.         C.M.D.D.         C.B.D.         Status         Status<
Voice Dispatch		Report Settings
Location Tracking		System reports C Readered Rados Unreastered Rados
😿 Route Management		Bardo Status     Disconscitor History     Sustem Bridano Activities
Text Messages     Voice Recording	_	Thermel Channes
Reports		
Event Viewer		
Radio Allocation		
Administration		



### 6.11.1 Report Types

TRBOnet Dispatch Console supports the following report types:

- **Queries** reports for a selected time period with information on Voice Recording and Messages displayed as an event log (non-printable format).
- **System reports** reports for a selected time period with information related to the radio system activities, in a print-ready format.
- **Common Reports** reports for a selected time period with information on Messages, Radio States, User Messages and Notes, Allocated Radios, Disabled Radios, Job Ticketing, Completed Routes etc., in a print-ready format.
- **Security Reports** reports for a selected time period with information on radio activities in selected regions, in a print-ready format.
- **Indoor reports** reports for a selected time period for movement details for Indoor Positioning, in a print-ready format.
- **GPS reports** reports for a selected time period with information on radios location and speed, in a print-ready format.
- **Data export** a report for a selected time period with information on extended notes, generated in Excel or XML formats.

#### 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:

• Start Date

Date from which to start reporting.

• End Date

Date on which to finish reporting.

• 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 a 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 Allocatio	on				😫 🚳
1 🗄 1 🕹 🗶 7 🖉 8	🔰 🔊 1: Line free	•0	Intercom		All Call	• • •
<ul> <li>★ 3 125 (Pete)</li> <li>★ 3 222</li> </ul>	Group 10	) # 0 1) # 0	Group 20	0 #0	Group 30	
💰 🔊 235 (Basil)	📃 🗔 Take/Return Rac	lio 📑 Add Missed	Data 🗸 📑 Groupin	g 🍸 Auto Filter 🍕	Default Settings	
	Callsign	△ Taken by User	Group Firemen, Police Firemen	Vehicle Make	Plate Number	Drivers
Location Tracking	125     125     222     8 235	Basi	Firemen, Police			
Job Ticketing	<ul> <li>Radio 200</li> <li>Radio 201</li> </ul>	$\backslash$	Al			
Route Management	Radio 202     Radio 203		Al			
RFID Tracker     Text Messages	Radio 204	$\left  \right\rangle_{2}$	Al			
🔮 Voice Recording		2				
Reports						
Event Viewer						
Radio Allocation	- 1					
s Administration	144 44 4 Record 2 of	FQ 10 100 100 1				

• Select the radio in the list and click the Take/Return Radio button (2):

Take Radio	×	
Radio:	125	
User:	Pete 💌	ĺ
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>6.4.20 Users</u> (page 234).

• 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 Common reports > Radio Allocation (2):



Reports	Common reports	👲 🚳 🔽
Common reports	🔊 1: Line free 🛛 🖷 🖉 📄 Intercom 🖃 🖷 🥥 🗸 Maintena	ace 🔊 📢 🧭
	Sales •) • • • • • • • • • • • • • • • • • •	
User Messages and Notes	EMERGENCY GROUP	
Disabled Radios	Al Cal () (€ () Group 11 () (€ () Group 22	
Telemetry B Radio Users by Channel 2	Group 1 0 4 0 Private Call 0 4 0	
State of Radios Summary	Report Settings	
; Voice Dispatch	Allocated Radios Saved Profiles:Not defined	
Location Tracking		
🚰 Job Ticketing	Select data by period:           Start Date:         4/26/2017 12:00 AM	
	End Date:	
🖞 Route Management	Filter:	
🖂 Text Messages	Radio: -Not defined	
0	- Logical Group:Not defined	
Voice Recording	Radio ID (e.g. 22,33,40-55,88 ):	
Reports	User:Not defined	
Event Viewer	Grouping:	
B Radio Allocation	Group by: By radios	
Administration	Generate Report Save Report Profile Delete Report Profile	

#### 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>5.9.2, 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	h Console	- 🗆 ×
File View Map Tools Help		
Location Tracking	Map 🔮 🚳 😉	Objects
🗈 🗄 🗄 🍸 💱 🍟	🔉 1: Line free 📧 🕢 Intercom 🔄 🕷 Ø	iii la
	Group 10 → € Ø ✓ Al Cal → € Ø	😔- 📝 📴 Beacons
Piremen 📮 🔶	✓ Group 20         ● ● ● ●         ✓ Group 11         ● ● ●	E- 🗹 🦢 Beacons
2 🚯 🕲 125 🔇 📮		🗹 🍥 Coffee
😥 🕲 235 💉 📮		
	My Map Q. Q. 👷 🛆 - Filte: 🛞 🛞 😱 🛞 🍸 🧟 Show Beacons: 🖋 Drawing Panel	
Voice Dispatch		<ul> <li>Image: Image: Weight and Image: Image:</li></ul>
Location Tracking 🛛 🛶	Select Map X	📃 🗁 Map Regions
	Map Type: Beacon2D	- 🖉 🦢 Map Routes
🔡 Job Ticketing	Ste Caption:	
Route Management	Available Maps	$\mathbf{N}$
Koute Humagement	Name Path State	
RFID Tracker	scheme D:\scheme.bmap OK	
		3
Text Messages		3
🚭 Voice Recording	300 m	
-	4 5	
Reports	Recent Calls/Events	Luka Elkar »
Event Viewer		Auto Filter
		Details Members: 235
Radio Allocation	09.06.2017 10:38:5	Members: 125
Administration	44  44	
	Recent Cals/E Recent Cals Request To Talk Radio State Active Tasks Active Routes User Activity Beau	
🔂 127.0.0.1 🚷 🥵 🧕 Administ	trator 📑 Licensed to: demo	Active •

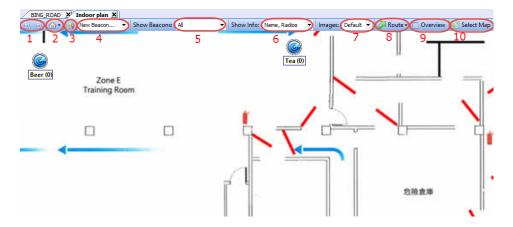
#### Map Type

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

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

#### 6.13.1.1 Floor Plan Toolbar

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



#### 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 mobil	le	Coffee	21-Nov-2016 15:16:48	Detected
Radio 240 mobil	le	Tea	21-Nov-2016 15:16:54	Detected
Radio 240 mobil	-	Coffee	21-Nov-2016 15:16:54	Lost
Radio 240 mobil	le	Tea	21-Nov-2016 15:16:58	Lost
Radio 240 mobil	le	Beer	21-Nov-2016 15:17:03	Detected
		۲		Load
	From:	(E) 21-Nov-2016 0:00		Load
			n>	Load •
Radio 201	From:	21-Nov-2016 0:00	n>	Load v
	From:	21-Nov-2016 0:00	n>	Load v
Radio 201	From:	21-Nov-2016 0:00	n>	Load V V
Radio 201 Radio 202 Radio 203 Radio 203	From: To:	21-Nov-2016 0:00	n≻	Load V
Radio 201 Radio 202 Radio 203	From: To:	21-Nov-2016 0:00	n>	Load T

- Select the time period to request data for.
- Select the radio(s) to request data for. Click Select All to display history for all radios registered in the system. Click Clear All to cancel radio selection.
- Click **Load** to load the history.

#### 9. Overview

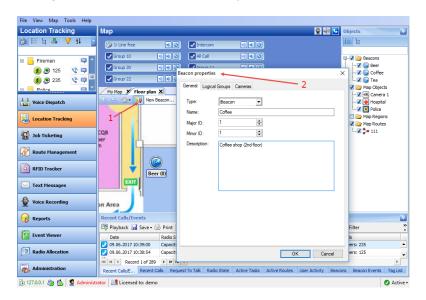
Click this button to view the entire floor plan.

#### 10. Select Map

Click this button to change the map 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.





#### 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>http://kb.trbonet.com/public.pl?Action=PublicFAQZoom;Ite</u> <u>mID=36</u>.

#### 6.13.4 Importing Beacons

The administrator can also import beacons from an Excel file (\*.xls).

Notes: If the Excel file you are importing from contains two columns (Name, Hardware ID), the beacons being added will be considered as K-Term beacons. If the Excel file contains three columns (Name, Major ID, and Minor ID), the beacons will be considered as iBeacon beacons. Also note that the first non-empty row in the table will be considered as a header row.



• In the **Objects** panel, right-click the **Beacons** folder, and on the shortcut menu choose **Import**.

Name	*	Hardware ID	Type	
Bar counter		Major: 90, Minor: 100	iBeacon	
Gate		Major: 90, Minor: 200	iBeacon	
Waiters'		Major: 90, Minor: 300	iBeacon	

In the Import Beacons dialog box:

- Click **Load > Excel**.
- In the **Open** dialog box, locate the desired file and click **Open**.
- Click **Import**.

As a result, imported beacons will be added to the list of registered beacons.

#### 6.13.5 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.

Objects	
÷ E	
🖨 🗐 🗁 Unregiste	red Beacons
🔲 🎯 Major	: 91; Minor: 2222
🗄 - 📝 🗁 Bea	Configure geofencing
🕂 🐨 🚺 🦢 Map	Show all objects on the map
🖶 🗹 🗁 Map	-
🗄 🛛 🏹 🗁 Map	Hide all objects on map
	Add Beacon
84	Find On Map
×	Delete object
<b>*</b>	Properties

To add an unregistered beacon to the Dispatch Console, right-click it and choose **Add Beacon** on the shortcut menu.



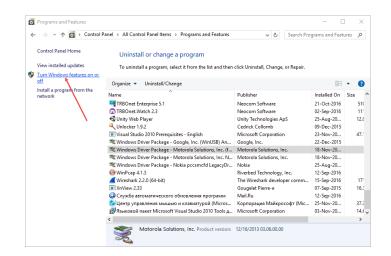
# 7 TRBOnet Web Console

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.

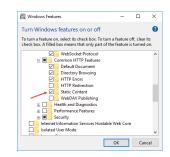


 Go to Internet Information Services>World Wide Web Services>Application Development Features, and make sure all of them are selected:

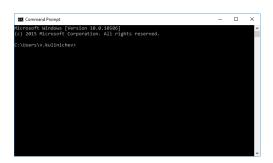
Turn Wine	dows features on or off		6
	ture on, select its check box. To turn a filled box means that only part of the		
🗹 🔤 Int	per-V ternet Explorer 11 ternet Information Services FTP Server Web Management Tools World Wide Web Services Application Development Featur Mark Services MATE Extensibility 3.6 MATE Extensibility 3.6 MATE Application Initialization MATE Application Ini	es ,	

• Also, make sure that Common HTTP Features>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.

🖓 📙 🖬	Application Tools v4.0.3031	9			- 0	č
Home Share	View Manage					
- → ~ ↑ 📙 → Thi	s PC → Local Disk (C:) → Windows → Mi	crosoft.NET > Framework	> v4.0.30319	✓ Ŏ Search v	4.0.30319	9,
🔤 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		
pictures	applaunch.exe	30-Oct-2015 10:21	XML Configuratio	1 KB		
	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		
ConeDrive	aspnet_isapi.dll	30-Oct-2015 10:19	Application extens	25 KB		
Children Children	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		
Cocuments	🧾 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		
*	caspol.exe	30-Oct-2015 10:21	XML Configuratio	1 KB		B::

• 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		-		$\times$
icrosoft Windows [Version 10.0.10586] c) 2015 Microsoft Corporation. All rights rese	rved.			
:\Users\v.kulinichevXC:\Windows\Microsoft.NET\	Framework\v4.0.30	319\aspnet_regii	s.exe	-i



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

← → ♥ > \$0142 +		
File View Help		
Connections	S0142 Home	Actions
h	S0142 Home	Open Feature
S0142 (NS\v.kulinichev)	Filter: • 🐨 Go - 🖓 Show All   Group by: Area • 🖽 •	Manage Server
Application Pools	ASP.NET A A	💝 Restart
	📗 💩 🖪 鱼 🦂 🗐 🖍	Start
	NET NET INET Error NET NET Trust Application Connection	Stop
	Authorizat Compilation Pages Globalization Levels Settings Strings	View Application Pools View Sites
	🐌 📰 🏠 🕵 🖬	Change .NET Framework
	👔 🌃 🕵 🏕 🛗	Version
	Machine Key Pages and Providers Session State SMTP E-mail Controls	Get New Web Platform     Components
	IIS A	😯 Help
	🛛 🚑 💁 📼 🍃 🗊 🛕 🐴	
	ASP Authentic CGI Default Directory Error Pages FastCGI	
	Document Browsing Settings	
	🗐 🐴 🌇 🍯 🍺 📑 🖗	
	Handler HTTP ISAPI and ISAPI Filters MIME Types Modules Output	
	Mappings Respon CGI Caching	
	📫 🗇 🐻 🧟 🦳 📗	
	Request Server WebD/W Worker	
	Filtering Certificates Authori Processes	
	Management	
	Configurat Feature Shared	
	Edan Delevation Confirmat	

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

Fak Vow Help Connections

- 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):

← → ② + S0142 + Applica File View Help							
Connections	119 · · ·	processes, co	ntain one or	eplication pools on r more applications, w All Group by:	Name:	Actions Add Applic Set Applica ? ×	ation Pool tion Pool Default: Yool Tasks
, 1	Name " J. NT V.20 J. NT V.20 J. NT V.45 J. NT V.45 Classic, NT V.45 Classic, NT V.5 Classic, NT V.5	Started v2 Started v2 Started v4 Started v2 Started v2 Started v2 Started v4	10 10 10	Menaged Pipell. Integrated Classic Classic Classic Classic Integrated	Urthabaphool NHT CAR venion v40.3019 Managed jupeline mode instryated OK	tely 3	ion Pool



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

← → 🐼 ► S0142 ► Sites File View Help	,	
The section of the se	Sites Fare Nore Coded with Sites 2	Peth Sectors Peth Sectors

• Click the Add Application link.

← → 🚯 > \$0142 > Sites	<ul> <li>Default Web Site</li> </ul>	•			
File View Help					
Connections	Appli	cations			Actions
S0142 (NS\v.kulinichev)	-				Add Application Set oplication Defaults
- Application Pools	This page lets you	view and manage the list of applications. A	pplications contain co	ntent and code.	Help
Gites     Gites     Gites	Filter	• 🐨 Go 🕞 🕁 Show All 🛛 Grou	p by: No Grouping	•	e nep
> 📲 sepret_clien	Vinus Pein	Physical Path	Site	Application Pr	
	Features View	Content View			

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

Add Applicatio	n		?	×
Site name: Path:	Default Web Site /			
Alias:		Application pool:		
TRBOnet 👞		DefaultAppPool	Select	
Physical path C:\WebConso Pass-through				
Connect as.	Test Settings			
		ОК	Cancel	

- Browse for the folder with unarchived Web Console.
- Click OK.
- Select **Application Pools** (1) and click the **Set Application Pool Defaults** link (2):



					Actions
Connections	9	Application Pool Defaults	?	×	Add Application Pool
212 (1973) vulnisher)     2000 (1973) vulnisher)     2000 (1974) vuln	This page associated of different of Filter: Nonne NETV NETV NETV NETV NETV NETV Defaul	V (General AIT CLI Version Enable 2: Bit Application Manage Dipeline Mode Cover Langh U CPU U CPU Lund Action Lund Action Lund Action Lund Action Lund Action Lund Action Lund Action Lund Action Lund Action Lund Process Middle Mode Processes Alfinity Matk Decesses Alfinity Matk Decesses Alfinity Matk Set Time-on (monden) Middle Process Model Event Set Time-on Action Loss User Process Model Process Technole Process Designation Consolities (Fact tests Stapped, HTTP ays will return an	L ApplicationPoolIdentity 20 Terminate True 1	<ul> <li>bob are bong</li> <li>upplication</li> <li>i</li> </ul>	Set Application Feed Default

• Set Enable 32-Bit Applications to True (3).

The Web Console will be added as an application to under the Default Web Site:

Internet Information Services (IIS) #	Manager	- 0 X
(← → () + S0142 + Sites	Default Web Site      TR8Onet	🛄 🖂 🖄 🔞 •
File View Help		
Connections  Sold2 (NS\v.kulinichev)  Application Pools	/TRBOnet Home      Filte:         · ⑦ Go - ۞ Show All   Group by: Area         ·  -          Area         ·  -         ·  -         ·	Actions Explore Edit Permissions
Gorden State     Gorden Web Site     Gorden Web Site     Gorden State     Gorden State	AIT NET NET NET NET Rev NET NET Profe JAT Prof	View Virtual Directories Manage Application Browse Application  Browse */80 (http) Advanced Settings Help
<ul> <li>CustomData</li> <li>Docs</li> <li>Forms</li> <li>GeocodingScripts</li> <li>Images</li> </ul>	Providers Session State SMIP E mail	
Ready		41.

Note: Make sure your account has sysadmin privileges (for more details, see <u>Appendix B: Configuring SQL Server 2012 for</u> <u>Local System Account</u> on page 343, and <u>Appendix C:</u> <u>Granting Sysadmin Role to Local System in SQL Server 2012</u> on page 346) and the database connection is successful (see section <u>5.2, TRBOnet Server Database</u> on page 13).

To open Web Console, right-click your application, choose **Manage Application > Browse**.

🖏 Internet Information Services (IIS) Manager		- 0 X
(← → () + S0142 + Sites + Default	Web Site + TRBOnet +	🖬 🖾 🙆 😥
File View Help		
Connections	/TRBOnet Home	Actions
	TRBONELHOME	Displore
S0142 (NS\v.kulinichev)  Application Pools Filter:	<ul> <li>The second second</li></ul>	Edit Permissions
- 🧕 Sites ASP.NE	T	Basic Settings
🗸 🌍 Default Web Site	in 🔮 🖬 🚯	View Virtual Directories
> - aspnet_client	.NET .NET Error .NET .NET Profile .NET Roles	Manage Application
> - D Explore		Browse Application
Edit Permissions		Browse ":80 (http)
Add Application	NET Users Application Connection Machine Key Pages and	Advanced Settings
> - 🖾 🐋 Add Virtual Directory	Settings Strings Controls	😧 Help
Manage Application	Browse	
Refresh	Advanced Settings	
Remove		~
< Switch to Content View	View 🔊 Content View	
Ready		• <sub>i</sub>

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**:

← → (? + \$0142 + Sites	Default Web Site      TRBOnet	🖬 🖂 🖄 📦
File View Help		
Connections	<b>0</b> mm	Actions
2	/TRBOnet Home	Open Feature
S0142 (NS\v.kulinichev)	Filter: • T Go - Show All Group by: Area • E •	Explore Edit Permissions
V Default Web Site		Basic Settings
> - Carl aspnet_client	i 🐴 🛸 🖪 🍨 🖏 🗞 👘	View Virtual Directories
TRBOnet     Account	.NET .NET .NET Error .NET .NET Profile .NET Roles Authorizat., Compilation Pages Globalization	Manage Application
> - App_Themes > - Audio	🔒 🚯 🔳 🖍 🐘 🖷	Browse Application Browse *:80 (http)
> Controls	.NET Trust .NET Users Application Connection Machine Key Pages and Levels Settings Strings Controls	Advanced Settings
>	Providers Session State SMTP E-mail	😧 Help
>	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**.

Internet Information Services (II	n maniger	- O X
← → [ () + S0142 + Sit	is + Default Web Site + TRBOnet +	😐 🖂 🟠 🔞
File View Help		
Connections		Actions
21	/TRBOnet Home	Di Explore
<ul> <li>S0142 (NS\v.kulinichev)</li> </ul>	Filter: - 🐨 Go - 🕞 Show All   Group by: Area - 🖽 -	Edit Permissions
Application Pools     Sites		Basic Settings
V Default Web Site		View Virtual Directories
> - aspnet_client	📲 🌸 🖪 🌻 🖏 🗞	Manage Application
TRBOnet     Acco B	.NET .NET Error .NET .NET Profile .NET Roles plore bion Pages Globalization	Browse Application
		Browse *:80 (http)
> - 🔛 Audir		Advanced Settings
	Id Application Id Virtual Directory Settings Strings Controls	😯 Help
Custr -		
5 - C Docs N	anage Application	
> 🛄 Form 🛺 R	fresh tate SMTP E-mail	
> - 🛄 Geoc 🗙 R	move	
	ritch to Content View Intent View	

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



General Sharing	Security	Previous Vers	sions Cus	tomize	
Object name: C	WebCo	sole			
Group or user name	es:	$\mathbf{X}$			
State Authenticated	Users				
SYSTEM 8					
🞎 Administrate	ors (S014	2\Administra	ators)		
🚨 Users (S014	2\Users]				
Permissions for Aut Users	henticate	d	Allow	Deny	
Full control					^
Mar diff.			$\checkmark$		
Modify					
Read & execute			$\sim$		
Read & execute			~		
Read & execute			$\sim$		
Read & execute			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~
Read & execute List folder conter Read	nts	vanced setting	js.	Advanced	~

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

nistrators)	
Add	Remove
Allow	Deny
$\checkmark$	□ ^
×	
Cancel	Apply
	Add

- 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 × +			-		×
← → ひ   10.10.100.99/TRBOnet/Account/Login.aspx?ReturnUrl=%2fTRBonet%2f	□ ☆	₽	I	٩	
TRBOnet Build 53.8.1716					
Web Interface 🚗	24			8	
Login Password					
Dispatcher 1					
Connect					
8					
neocom software					

• 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	× +	– – ×
$\leftarrow \rightarrow $ 0	10.10.100.99/TRBonet	
TRB0net"	Web Console	Send Text
Map Reports	Messages Job Ticketing	Dispatcher 1 Logout
Radios		Q Region: Default 🚽 💥 + 🛱 3
Raulos		
	33	Bloom
🗹 😑 Online, Indoor		
Online, GPS fixed           Image: Contract of the second s	Q 🕽 ars 🔅 📕	
Radio 25		22 (\$) • Marko
Original C, 100 of 0     Original C, 100 of 0     Original C, 125     Original		235 (x) ykpon
235	Q 🚚 ars 🔅 Glón	4444 Radio 333
Radio 27	Q 🚚 Grs 🕸 Ларха старьевщика	Radio 27
E 🗹 🔘 Offline	Старьевщика	Васильевский
🖌 🛞 13		Radio 25
🗹 🛞 3333	Q a ors Q 24 24 29 29 29 29 29 29 29 29 29 29 29 29 29	3333 без рубля Сим
🗹 🛞 4444		(*) 28
🗹 🛞 555	Q ars 🔅 etoff	Radio 3662 27
\$ 5555	Q 🚚 ars 🔅 🔰 👔 👔	44
🛞 Radio 300	Q 🔊 Grs 🕸	Set Data TC-By-SA by OpenStreetMap
🗹 💰 Radio 333	Q 🕽 Grs 🔅 22	Text Messages
🗹 🛞 Radio 3662	Q 🗸 ors 🔅	125

#### 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 Sutton to see the selected radio in the center of the map.

Click the selected radio on the map.



	oute		
<ul> <li>Image: Contract of the second s</li></ul>	125		
		Select All	Deselect A
From:	24-Nov-2016 0:00	Select All	Deselect A
From: To:	24-Nov-2016 0:00 24-Nov-2016 18:41	Select All	
			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

Specify the **From** and **To** date and time. Select the **Optimize Route** option to group all points in a 100 meter radius.

Click the <sup>GPS</sup> button to request a location of the selected radio.

Information		
125		
· ·	24-Nov-2016 19:00	); )
Longitude: 30°16'47.9 Accuracy: 46	9"E	
Speed: 0.6 km/h		
Speed: 0.6 km/h	of 1 Next>	>

Click the 🏝 button to display the selected radio properties.



#### 7.3.3 Locking a radio

To disable a radio:

- Right-click the desired radio in the Radio List pane.
- In the shortcut menu that opens, click **Lock**.
- Enter the Lock reason and click OK.

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

#### 7.3.4 Map

#### 7.3.4.1 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.



TRB0net"	Web Console	200557	Send Text
Map Reports	Messages Jo	b Ticketing	O Dispatcher 1 Logou
adios	: <b>.</b>	E E Find address	🙁 Q Region: Default 🔹 洪 + 首 👀 🧸
✓ ○ Online, Indoor ✓ ○ Online, GPS fixed	^	Dedis Jadine 22 33 33 33 4 22	26 0 Base Layer OpenStreetMap Mapnik OpenCycleMap
🗹 💰 125	Q 📕 GPS 🍄	Abajour cafe 9	34 Transport Landscape
🗹 🛞 235	Q 🐊 GPS 🍄	28	MapQuest
🗹 🔵 Online, No GPS			Google Physical 30 Google Streets
📧 🚷 Radio 240 m	🔍 📕 GPS 🍄	26 31	Coogle Hubrid
<ul> <li>Offline</li> </ul>		24	125 E Google Satellite
🛞 111	🔍 📕 GPS 🍄	29	
(¥) 222	Q 🐊 ars 🌣		BacunbeBckull oct Regions
A) 222		22	
🗌 🛞 Radio 200	Q 🐊 🖙 🌣	22 09 mm 27 20 mm 27 22	Radios

#### 7.3.4.2 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.

#### 7.3.4.3 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.

← → ♡   10.10.199/18 <b>TRBO</b> net <sup>™</sup>	RBOnet%20Web%20Console			TERS	□ ☆   =
Map Reports	Messages Jol	b Ticketing	549		Dispatcher 1 Logour
Radios	📑 💑		8, Broadway	Q Region: Default	- ¥ + 🕯 O 🥖
		2		12 12	22
🗹 😑 Online, Indoor	~	35 33	34		24
🛾 📄 🔵 Online, GPS fixed				32 15	13
📃 💰 125	🔍 🔎 GPS 🏠				11 18
🗹 💰 235	Q 🐊 GPS 🔅	28	1	Spices & Joy	School number 21 🕤 Школа № 21
🛛 🗹 🔵 Online, No GPS		26 31	235	🛛 🖉	16
( 👧 Radio 240 m…	Q 🚚 ers 🔅	24	Date:	25-Nov-2016 13:40:12	6, <sup>9</sup> Tan jen
🛛 🗹 🔘 Offline		Cr 24	Latitude:	59°56'26.40"N	21 Tan жен 17
 (£) 111	Q 🚚 GFS 🔅	29	Longitude: Altitude:	30°16'47.89"E Unknown	
€ 222	Q 🐊 ors 🕸	22 9	7-ya liniya, 34, Sank	t-Peterburg, Russia, 199034	
Radio 200	Q 🖉 ers 🛱	22 QA IMMI D	2		
(£) Radio 201		20 4			Vasileostro
Kadio 201	~ or or **		21	Text Messages	

#### 7.3.4.4 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.

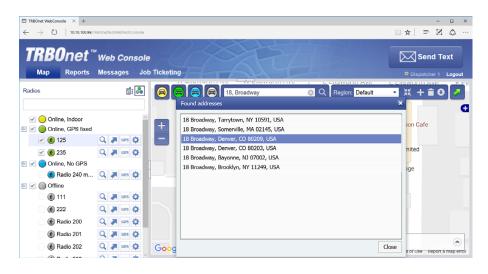
• Click e to remove radios that are online and have a detected beacon position from the map view. Click this button again to bring them back to be displayed.



- Click I 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 view to remove radios that are online and have no detected GPS position from the map view. Click this button again to bring them back to be displayed.
- Click 🖾 to remove radios that are offline and have no detected GPS position from the map view. Click this button again to bring them back to be displayed.
- Click 📴 and select the visibility of the radios having On Duty and/or Off Duty states.

#### 7.3.4.5 Search by address

- In the Find Address box, enter the address you want to locate on the map.
- Click the lens button on the right.
- In the Found addresses window, click the address to locate it on the map.



#### 7.3.5 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.



<b>TRBOnet</b> <sup>™</sup> 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	<b>V</b>	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.

#### 7.3.6 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.

#### 7.3.6.1 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.

#### 7.3.6.2 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.



#### 7.3.7 Reports

• Click the **Reports** tab at the top of the window.

TRBOnet WebConsole × +			- 🗆 X
← → Ů 10.10.100.99/TRBOnet%	20Web%20Console		
<b>TRBOnet</b> <sup>™</sup> well Map Reports Mess	<b>b Console</b> sages Job Tick	eting	Send Text  Dispatcher 1 Logout
GPS Reports	Location for	period	
Location for Period			
<ul> <li>Drive Activity Detailed</li> </ul>	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 🔽	
<ul> <li>Decation for Period</li> </ul>		Show street names	
Drive Activity Detailed			
Staying in a region	Generate Repo	t	

In the right pane, select report parameters and click Generate Report.
 Once the report is generated, you will see it in a separate tab of your Web browser.

TRBOnet WebConsole	$\Box$ Location for period $\times$ +													2
$\rightarrow$ 0	10.10.100.99/TRBOnet%20Web%20Console/Re	eports/GPSByFilter/GPS	ByFilterResult.aspx?ra	dio=08minInterval=0	I6ishowStreetNames=1	alse&unit=1&start	Date=18/11/20	16+11:218:endDa	ite 🛄	☆	=	Z	۵	
	Page 1	▼ of	337	Þi 📕	E Pdi	F								
	for period 6 11:21 to 25-Nov-2016 11:21						-							
Radio: 125 (C	eaning 1)													
		Altitude (meter)	Accuracy (meter)											
l8-Nov-2016 l1:21:29	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>								
l8-Nov-2016 l1:23:29	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	on map								
.8-Nov-2016 1:25:29	Latitude: 59°56'25.96"N Longitude: 30°16'47.89"E	Unknown	37	0.2	0	on map								
l8-Nov-2016	Latitude: 59°56'26.23"N				0									

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**:

1 SQL Server 2012 Setup					- • •
Database Engine Config Specify Database Engine authent		administrators and	data directories		
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Server Configuration Specify the authent Authentication Moc Windows authen Mixed Mode (SQ Specify the password: Enter password: Confirm password: Specify SQL Server a				
	VM_WIN7_002\adm		emove < Back	Next >	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		? <b>-</b> ×
Select this object type:		
Users, Groups, or Built-in security princ	ipals	Object Types
From this location:		
VM_WIN7_002		Locations
Enter the object names to select ( <u>exam</u>	<u>ples</u> ):	Check Names
Advanced	ОК	Cancel

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



Select Users or Groups			? X
Select this object type:			
Users, Groups, or Built-in security principals			Object Types
From this location:		-	
MITYA			Locations
Common Queries			
Name: Starts with			Columns
Description: Starts with			Find Now
Disabled accounts			Stop
Non expiring password			
Days since last logon:			<i>9</i>
Search results:		OK	Cancel
Name (RDN)	In Folder		<b>_</b>
IIS_IUSRS	MITYA		
NETWORK			
RETWORK SERVICE			
REMOTE INTERACTIVE LOGON	MITYA		
	MILLA		
SQLServer2005SQLBrowserUser\$MITYA	MITYA		-

• Select NT AUTHORITY\LOCAL SERVICE (LOCAL SERVICE):

Specify Database Engine authe	ntication security mode, administrators and data directories.
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Server Configuration       Data Directories       User Instances       FILESTREAM         Specify the authentication mode and administrators for the Database Engine.         Authentication Mode <ul> <li>Windows authentication mode</li> <li>Mixed Mode (SQL Server authentication and Windows authentication)</li> <li>Specify the password for the SQL Server system administrator (sa) account.</li> <li>Enter password:</li> <li>Confirm password:</li> <li>Specify SQL Server administrators</li> </ul>
	VM_WIN7_002\admin (admin)     SQL Server administrators have unrestricted access to the Database Engine.       Add Current User     Add     Remove

• Click **Next** and follow the prompts to finish the installation.



# **Mixed Authentication mode**

Database Engine Confi Specify Database Engine auther	guration ntication security mode, administrators and data directories.	
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Server Configuration         Data Directories         FILESTREAM           Specify the authentication mode and administrators for the Database Engine         Authentication Mode           Windows authentication mode         Windows authentication mode           Image: Mixed Mode (SQL Server authentication and Windows authentication)         Specify the password for the SQL Server system administrator (sa) account.           Enter password:         •••••••         Specify SQL Server administrators	
	TRBOnet-PCVAdminuser Add Current User Add Remove	SQL Server administrators have unrestricted access to the Database Engine.
	< 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.

• Run SQL Server Management Studio from the Start menu.



- 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 General	Script 👻 🌄 Help	
Server Roles User Mapping Securables Status	Server role is used to grant server-wide security privileges to a user.	
/	bukadmin dorestor dikadmin processadmin v puble severadmin setupadmin v stupadmin v stupadmin v stupadmin	
Connection Server: VM_WIN7_002\SQLEXPRESS Connection:		
VM_WIN7_002\admin		
Wew connection properties		
Progress		
Ready		
S.		

• 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
Service 🔨	
S Network	The TRBOnet Server service is installed
🛱 Redundancy	
Database	Status: 🜔 Service started
😪 Reports	Stop service
🔅 Service Management	
X Advanced settings	Save changes and restart service
Geocoding Servers	
Radio Networks	Uninstall Service
🏠 Services	
Privacy	
Slot #1	
<b>III</b> Slot #2	
EI3 Local Slots	
	Division of Estrical Expert Coefficientian Tenant Coefficientian
< >	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.





Canformation	Database				
Configuration					
💣 Service 🔨					
S Network	SQL Server:	(local)\SQLEX	PRESS		•
🛱 Redundancy	Database:	TRBOnet			•
Database	Authentication:	Windows			
Reports	Autrientication:	windows			•
Service Management	Login:				
🔀 Advanced settings	Password:				
Geocoding Servers					
Radio Networks	Specify the path fo	or database ard	hives		
Services	Path:	C:\TRBOnet\B	ackup \DB		
Repeater #1	Use custom folder	for audio files			
			<b>- - - - - - - - -</b>		
Privacy	Path:	C:\TRBOnet\E	аскир үчиско		· · ·
	Test Connec	ction			
Local Slots	Upgrade Datab				
< >	Create Databa	ase 🔻			
Set Defaults			Apply	ОК	Cancel
Serbelauits			Apply		Cancer

• Save your changes and restart the service.

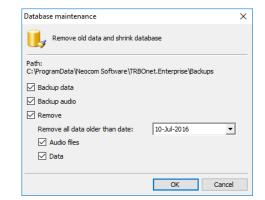
## **Back up Database and Audio Recordings**

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:

dministration		Databa	se					🔮 🚸 🕻
Server	^	S 1: Li	p 10 📧	<0 <0	Group 20	0 40	All Call	0 . O
	~	🤴 Backı	ıp   🧇 Schedule					
Voice Dispatch			Database Info	rmation				
Location Tracking			Server name: Database name:		(local)\SQLEXPRESS TRBOnet			
🚰 Job Ticketing			Backup date: Database version:		Jun 17 2016 19:14:09	2014 (SP2) (KB31710	21) - 12.0.5000.0 (X64)	
📝 Route Management					Copyright (c) Microsof Express Edition (64-bi	t Corporation t) 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	~							

• Specify the backup details:





#### 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.

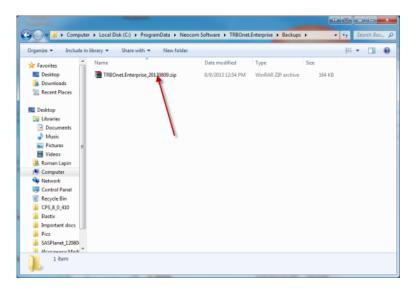
- Data
   Select to remove data.
- Click **OK** to run the backup procedure.

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.





#### For TRBOnet.Plus:

Comput	ter → Local Disk (C:) → ProgramData → Neocom	Software 🕨 TRBOnet I	Plus 🕨 Backups 🕨	
Organize 🔻 Include i	n library      Share with      New folder			
☆ Favorites	Name	Date modified	Туре	Size
Desktop Downloads Dropbox Recent Places	TRBOnet Plus_20140528.zip	5/28/2014 7:36 PM	Compressed (zipp	208 KB
Pesktop     Libraries     Documents     Music     Pictures     Videos     Roman Lapin     Computer     Network     Control Panel     Recycle Bin     100 level 2D map     S85 roman     Config.Pics     CPS.8.0.410     Dispatcher Action     Elastix     Elastix 2.2.0.986 (f     Floor     Important docs     Jenkins     Licences     NAI				
1 item				

# **Restore Database**

#### To restore the database

• Open TRBOnet Server and stop the TRBOnet Server service.

Configuration	Service
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 Networks	Uninstall Service
Digital Systems	
Services	
Repeater #1	
🔀 Advanced setti	
Privacy	
<b>III</b> Slot #1	
<b>III</b> Slot #2	
Local Slots	
< >	View Log Entries Export Configuration Import Configuration
Set Defaults	Apply OK Cancel

• Unzip the backup archive and open the folder:

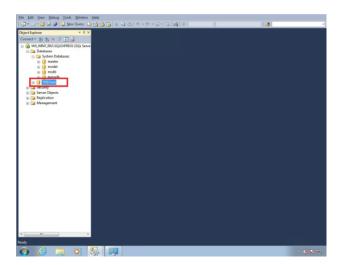


Organize 👻 🎇 Open	Include in library      Share with	New folder			100	- 🗆	. 8
🖈 Favorites	Name	Date modified	Туре	Size			
Cesktop	🔒 Audio	8/9/2013 1:09 PM	File folder				
🐌 Downloads	📄 Info.txt 🕈	8/9/2013 12:54 PM	Text Document	1 KB			
Secent Places	TRBOnet.Enterprise.bak	8/9/2013 12:54 PM	BAK File	1,939 KB			
	TRBOnet.Enterprise_20130809.zip	8/9/2013 12:54 PM	WinRAR ZIP archive	164 KB			
Desktop							
; Libraries							
Documents							
J Music							
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: Defare: Defare: Defare: Befare: Befare: Befare: Befare: Befare: Befare: Nere: Nere: Nere: Defare	Sorrer - Dataen Dataen Dataen Defrice Defrice Defrice Defrice Batters to Recky as to rettore Recky as to rettore Rettore Name Component	Sourt - Melp Source Dataser Dataser Digitalser Dataser	Sours - Dataen Dataen Dataen Derice Derice Dataen Derice Dataen Refere store Refere store Refere Store Source Refere Store Store Refere Sto	Sours     Sours     Dadaee     Dadaee     Dadaee     Dadaee     Dyske     Dyskee      Dadaee      Dadaee

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:

O No backupset selected to be rest	ored.		
Select a page	Script - Help		
- General	State Black		
🚰 Film	Source		
P Options			-
	© Detebese		
	Device		
	Database		
	Diffusion.		
	Destination		
	Database	TRBOvet	-
	Bestove to:		Tindee
	-		Turene
	R 💷 Select backup devis	ices	
	Specify the backup me	eda and its location for your restore operation. Plan *	point LSN Jul L
	Backup geda		
		(biti	
		Bemove	
Connection		Cortjents	
VM_WIN7_002(SQLEXPRESS (VM_WIN7_002(admin))			
Yew connection properties			
Progress		OK Cancel Help	
O Ready			Backup Media
		OK Canol	Hele

• 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:	rile	-
Court Town		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 Carcal 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 Extore to Restore plan Backog units to restore Farters Asso Conceptor.	TRBOnet TRBOnet The last backup taken Type Server	om Software(1788Doret Enterpr (Tvesder, August 96, 2013 11.2 Database Poston Pr	• 127, Imeine e15N Last 15N
Cannection (M. VMC (DO. SQLDOMESS (M. VMC (DO. SQLDOMESS (M. VMC (DO. SQLDOMESS )))))))))))))))))))))))))))))))))))	2 Odebar	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	
💣 Service 🗸		
S Network	SQL Server: (local)\SQLEXPRESS	-
Database	Database: TRBOnet22222	*
Service Management	Authentication: TRBOnet	
X Advanced settings	TRBOnet_Test	
Map Servers for Geocoding	Login: TRBOnet_Test1	=
Local Agent	Password: TRBOnet_Test11	
	TRBOnet222	
Services	Specify the path fo TRBOnet22222 TRBOnet222222	
Repeater #1	Path: C:\Users\r.lapin.NS\Desktop\u	portant doca
Advanced settings	Path: C: Osers y Japini NS (Desktop (J)	portant docs
Privacy	Use custom folder for audio files	
<b>III</b> Slot #1	Path:	
<b>I</b> II Slot #2		
EI3 Local Slots		
Analog Control Stations	Test Connection	
📷 Remote Agents	Upgrade Database	
Friendly Servers	Create Database	
78 Internal PBX Server	Create bottoble	
External PBX Server		
Set Defaults	Apply Ok	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
🔗 Service 🔺	
S Network	The TRBOnet Server service is installed
🔅 Redundancy	
Database	Status: 🜔 Service started
😪 Reports	Stop service
🔅 Service Management	
X Advanced settings	Save changes and restart service
Geocoding Servers	
Radio Networks	Uninstall Service
Digital Systems	
Services	
Repeater #1	
Privacy	
Audio Paths	
Analog Control Station:	
Remote Agents	
Friendly Servers	
🕿 Telephony 🗸 🗸	View Log Entries Export Configuration Import Configuration
< >	
Set Defaults	Apply OK Cancel

## **Restore Audio Recordings**

To restore the audio file:

• Launch TRBOnet Server and stop the TRBOnet Server service.

Configuration	Service
Service	The TRBOnet Server service is installed
Redundancy	
Database	Status: 🜔 Service started
😪 Reports	Stop service
Service Management	Save changes and restart service
Advanced settings	
Geocoding Servers	
Radio Networks	Uninstall Service
Digital Systems	
💭 Services	
Repeater #1	
Privacy	
Slot #1	
<b>I</b> Slot #2	
EI3 Local Slots	
	Different an Entries, Entries Conferentian, Instant Conferentian
< >	View Log Entries Export Configuration Import Configuration
Set Defaults	Apply OK Cancel

 Go to Database section in the navigation tree and specify custom directory for audio files (for example, for TRBOnet Enterprise
 C:\TRBOnet.Enterprise\Backup\Audio; for TRBOnet Plus:
 C:\TRBOnet.Plus\Backup\Audio).



Configuration	Database	
💣 Service		
🕥 Network	SQL Server:	(local)\SQLEXPRESS -
🛱 Redundancy	Database:	TRBOnet •
Database	Authentication:	Windows
😪 Reports	Addienacadon.	•
🔅 Service Management	Login:	
🔀 Advanced settings	Password:	
Geocoding Servers		
👩 Radio Networks	Specify the path f	or database archives
🔂 Remote Agents		
Friendly Servers	Path:	D:\Temp\TRBOnet ····
🔞 Telephony	🗹 Use custom folder	for audio files
↓ Data Sources	Path:	D:\Temp\Audio ····
🍀 Modbus TCP	PdUI:	D: (Tellip Mudio
🔀 Email		
NO SMS	Test Conne	ection
📮 License	Upgrade Data	base 🔻
	Create Datab	base 🔻
Set Defaults		Apply OK Cancel

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



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

Organize • Includ	ie in library • Share with • New	folder	1		E • 0
Downloads	* Name	Date modified	Type	Size	
🗽 Recent Places	2012_01_31_12	1/31/2012 12:27 PM	File folder		
		1/31/2012 12/27 PM 1/31/2012 6/06 PM	File folder	\	
Desktop	2012_01_31_18			1	
Cibraries	2012_01_31_20	1/31/2012 8:13 PM	File folder	\	
Documents	2012_02_01_10	2/1/2012 10:48 AM	File folder	\	
Music	2012_02_01_18	2/1/2012 6:55 PM	File folder	1	
Pictures	2012_02_01_19	2/1/2012 7/56 PM	File folder		
Videos	2012_02_01_20	2/1/2012 8:20 PM	File folder		
Roman Lapin	2012_02_02_17	2/2/2012 5:29 PM	File folder		
Computer	2012_02_03_15	2/3/2012 3:53 PM	File folder		
Network	2012_02_03_16	2/3/2012 4:10 PM	File folder		
Control Panel	E 2012_02_03_18	2/3/2012 6:43 PM	File folder		
Recycle Bin	2012_02_06_15	2/6/2012 3:58 PM	File folder		
CP5 8 0 410	2012_02_06_16	2/6/2012 4:54 PM	File folder		
Battix	2012_02_06_17	2/6/2012 5:24 PM	File folder		
Important docs	2012_02_06_18	2/6/2012 6-02 PM	File folder		
	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		2/7/2012 4:06 PM	File folder		
🗼 Искодники Маф	2012 02 07 18	2/7/2012 6:34 PM	File folder		
🐌 Фото	2012 02 08 13	2/8/2012 1:47 PM	File folder		
	* 1 2012 02 08 14	2.0 (2012) 2.40 014	Elladaldas		

• Click the Save changes and restart service link.





Configuration	Service
Service	
S Network	The TRBOnet Server service is installed
🛱 Redundancy	
Database	Status: 🜔 Service started
😪 Reports	Stop service
Service Management	A Revention and exclusion for
🔀 Advanced settings	Save changes and restart service
Geocoding Servers	
Radio Networks	Uninstall Service
Oigital Systems	
Services	
Repeater #1	
X Advanced setti	
🔒 Privacy	
Audio Paths	
Analog Control Station:	
Remote Agents	
Friendly Servers	
🕿 Telephony 🗸 🗸	Niew Log Entries Export Configuration Import Configuration
< >	
Set Defaults	Apply OK Cancel

Thus, the audio files will be restored.

# **Schedule Backups**

To set a scheduled backup for the database and audio recordings, do the following:

- In the Dispatch Console, go to **Administration** section and select **Database** in the Navigation tree:
- Click the **Schedule** button:

File View Map Tools Help						
Administration	Data	base				🔮 🐠 🔽
Server		1: Line free 🔹 🥥 Group 10 🔹 🗟 🔊 Private Call 🔹 🐨 🚭 ackup 🔄 Schedule	Group 20	• • • 0 • • 0	All Call	040
Voice Dispatch		Database Informatio	n			
Location Tracking		Server name: Database name:	(local) \SQLEXPRESS TRBOnet			
😵 Job Ticketing		Backup date: Database version:	Jun 17 2016 19:14:09	- 2014 (SP2) (KB31710 )	21) - 12.0.5000.0 (X64)	
Route Management				t) on Windows NT 6.	3 <x64> (Build 10586: )</x64>	
RFID Tracker		Data size: Audio size:	17.23 MB 22.77 MB			
Voice Recording						
Reports						
Event Viewer						
😰 Radio Allocation						
Administration						
🅤 127.0.0.1 🙈 🥵 💆 Administ	trator 🛛 📑 Licens	ed to: demo Demo License				Active

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



Schedule Database Backu	p X
Configure the data	abase backup scheduler
Enable scheduler Scheduler:	Database Backup V +  (Select Al)  adf
Backup audio	☐ ghj ☐ rty
Remove all data     Audio files     Data	oldi Qwerty Database Backup OK 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>6.4.14</u>, <u>Schedulers</u>.

• Backup data

Check to back up data.

• Backup audio

Check to back up audio recording.

## • Remove

Check to remove audio files and data from the database.

Remove all data older than [X] days
 Select the number of days to remove all data.

Audio Files

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.

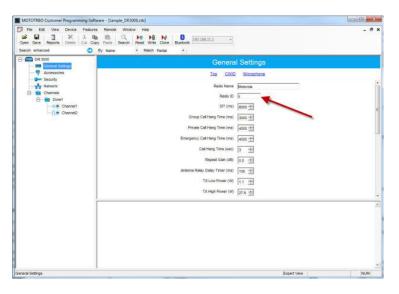
Note: No extra license per repeater is required for Digital Phone Patch from Motorola.

## **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	<ul> <li>③ 1: Line free ●</li> <li>☑ Repeater #1: Slot #2 •</li> <li>☑ •</li> </ul>		Repeater #1: Slot #1 •) •: 0
System Bridging     Telephony     Tasks     Z     Final Modbus Devices     Event/Alarm Management     v	Configure Calls Extensions Rev Radio calls configuration ← Allow subscribers to make outgo Allow to use DTMF:	ing calls: Yes Yes	
Voice Dispatch	Allow to use Text Message Backward call to radio:	s: Yes, Prefix: 'sip:'	
GPS Positioning	Backward call to radio: Initialize call to radio: Initialize call timeout:	Radio calls configuration	×
🔡 Job Ticketing	Execute Check Radio before ca Send Text Message if cannot er Play tone when PTT changed:	Allow to use DTMF	
Route Management	DTMF Access code: DTMF Deaccess code:	Allow to use Text Messages	sip:
RFID Tracker	Configure	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:	Unimited + seconds
🔮 Voice Recording	Call to Dispatch Center: Call to external number:	Execute Check Radio before call	al
😪 Reports	Extension numbers (voice Start call automaticaly:	Play tone when PTT changed	
Event Viewer	Maximum number length: <u>Number</u>	DTMF Access code: DTMF Deaccess code: 5	▶ 0 <i>≠</i>
(1) Radio Allocation	0 1 <number></number>		OK Cancel
Administration	Configure	carra.	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 S	Software - [Untitled1]	- 🗆 X
📆 File Edit View Device Featu		- 8 ×
	↓     □     □     ↓ </th <th></th>	
Signaling Systems	Sys1	
⊟ 📹 5 Tone	<u>Top</u> <u>DTMF</u>	
⊟ (∰ Sys1	Gateway ID 100 -	
Quik-Call II	Access Code 0	
Digital Emergency		
Capacity Plus Eme		
🖃 🖮 🚞 Phone	Pretime (ms) 500 + 1 TX Tone Duration (ms) 120 +	
Encoder	TX Tone Interval (ms) 80	
Status	Pause Duration (ms)	
< Seq1 v		
Sys1	Expert View	NUM

- Make sure that **Gateway ID** (2) is equal to repeater Slot IDs in TRBOnet Server as well as to TRBOnet Peer ID in TRBOnet Server.
- Set DTMF Access Code to **0** and DTMF Deaccess Code to **#**, respectively (3).



MOTOTRBO Customer Programming Software -	[DP4601.ctb]	
Copen Save Reports Debits Cut Copy Pr	tembe Window Help B. Q. He He Mo Buelooh Its Search Read Wine Clone Bluelooh Name - Match Danial -	- 5
	Ch	annel1
	Tep	ex IX
-a Call	Voice Announcement File	Ribne
Capacity Plus	Dual Capacity Direct Mode	п
CHI MANAGMENT	Timing Leader Preference	Digble -
Call Call	Scan/Roam List	None •
Call	Auto Scan	
🔁 - 🚞 Digital	Color Code	13 2
Capacity Plus	Repeter/Time Slot	
	Phone System	Synt
	ARS	Disabled
E Zone1	Enhanced GPS	п
MANAGMENT	Alberton Con	
test 1	Phone System	
Channel Pool     Channel Pool     O Ste a 1-2     O Ste a 3-4     O Ste a 1-2     O Ste a 3-4     O Ste b 1-2	the None option disables the user from initialing or receiving phone ca Notes • This feature is disabled when the Dual Capacity Direct Mode (DCD	
C Make b 3-4 C Make b 3-4 C Make b 3-4 C Make b 3-4	<ul> <li>This feature is supported in Digital mode only.</li> </ul>	
hannel1		Expert View NUM

• Go to **Repeater/Channels** (1) and specify the phone system you have set up (2):



# **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**

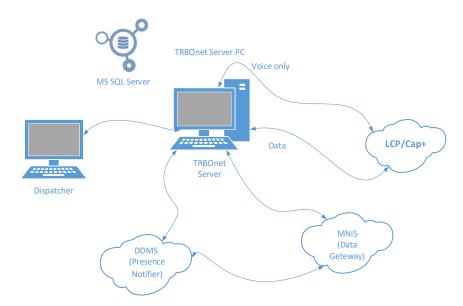
	Server Computer	Dispatch Computer
CPU	Intel Core i7 or higher	Intel Core i5 or higher
Memory	3 GB	3 GB
Sound Card	_	Multi-channel Sound Card required. Recommended: 1. <u>M-Audio Delta 1010 LT</u> 2. <u>Roland OCTA CAPTURE Hi-SPEED USB</u> <u>Audio Capture</u>
Supported OS	Windows 7/8.x/10 Windows Server 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

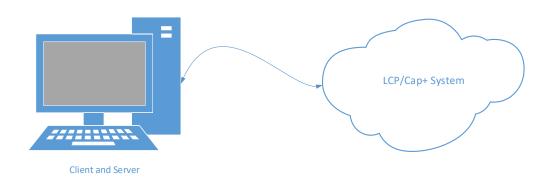
MNIS is responsible for sending/receiving Data Packages and forwarding them to TRBOnet Server.

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**

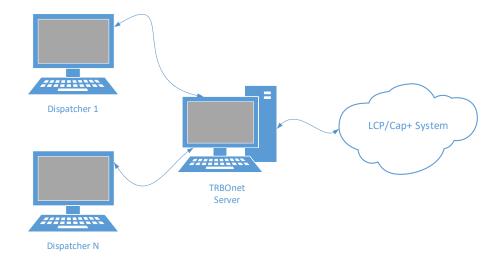
TRBOnet Server and Dispatch Console can be installed on the same computer.





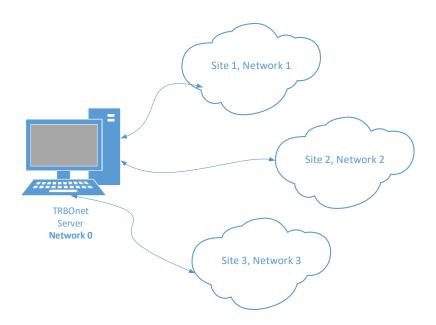
## **Client-Server Installation**

For the systems with 2 and more dispatch positions, it is recommended to have a dedicated server computer (could be a virtual machine).



One TRBOnet Server and up to 30 Dispatchers.

TRBOnet Server and all the LCP sites must be in different networks, behind corresponding routers:



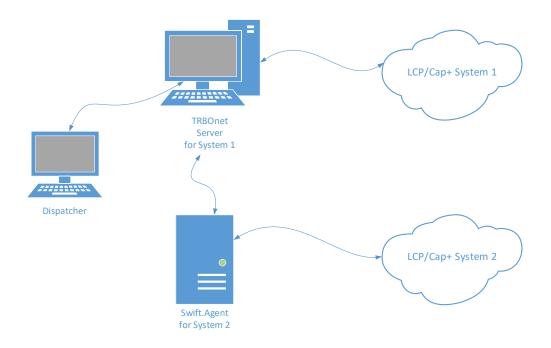
Use the recommended Routers only.

#### 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.



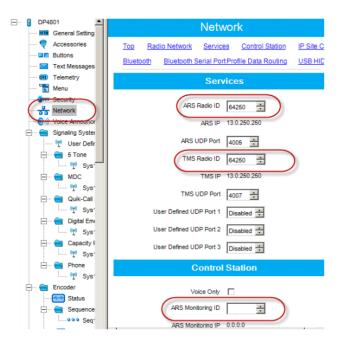
## Limitations

- Logging of Radio-to-Radio TEXT is **NOT SUPPORTED**.
- Phone Interconnect available with some limitations. For more details, see the following article at <u>http://kb.trbonet.com/public.pl?Action=PublicFAQZoom;ItemID=53</u>.
- Local Talk Group IDs must be unique per system.

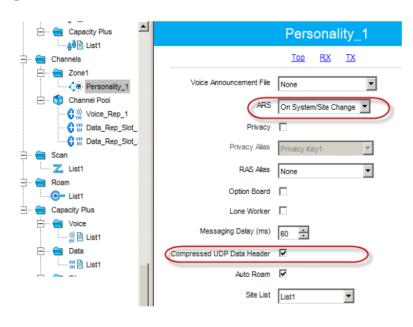


# **Radio Subscriber Configuration**

# **Network Settings**

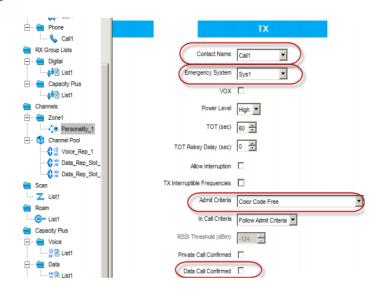


### **Personality Settings – 1**



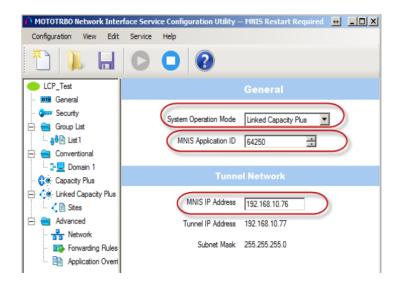


## **Personality Settings – 2**



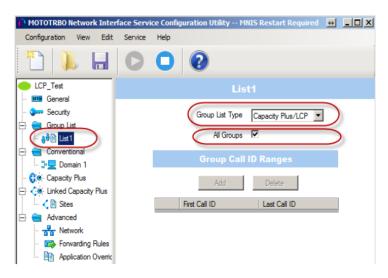
## **MNIS and DDMS Settings**

#### **General Settings**

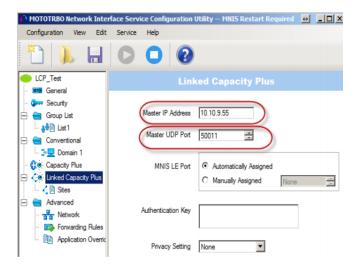




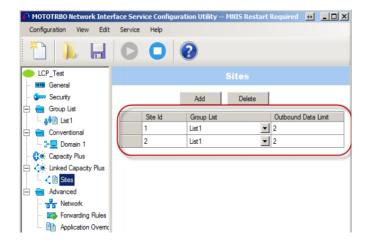
### **Talk Group Settings**



#### **Master Repeater Settings**

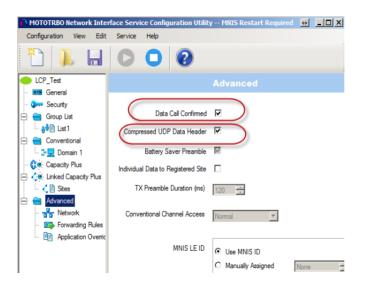


### **LCP Sites Settings**





## **Advanced Settings**



## **Network Settings**

NOTOTRBO Network Interface Service Configuration Utility *			×		
Configuration View Edit	Service Help				
1		?			
Untitled					
··· III General ··· III Security		CAI Network	12 🜩		
⊟· 💼 Group List ≱ð∰ List 1		CAI Group Network	225 🚖		
🖃 💼 Conventional		s	ervices		
- 📲 Domain 1		ARS UDP Port			
<ul> <li>Linked Capacity Plus</li> <li>Advanced</li> </ul>		TMS UDP Port			
Forwarding Rules     Application Oven		Telemetry UDP Port	4008		
		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 second second	# <u>-</u> D)
File Action Help		
	1	
Service	ARS Settings	
E Martinterfaces	PortSU	4005
🔄 ARS Settings	PassiveMode	Off
Watcher Settings	DeviceRefreshTime	30
Cogging	Deregistration TO	120
Contraction and	PersistenceTO	12000
	DeviceRefreshTime Device Registration duration i	n minutes, rounded up to the nearest 30
Settings for ARS/SU interface	minute interval Range: 0 - 64	*60 (D=forever)

# **ARS TRBOnet Settings**

Configuration	Service Management		Version: 5.3.0.1661	
💣 Service 🕥 Network	Presence service			
Redundancy	Auto request presence timeout:	5 ‡	minutes	
Database Reports	ARS refresh interval:	1440 🗘	minutes	
Service Management	Ignore unregistered Radios			
Advanced settings	Location service		-	
👩 Radio Networks	GPS restart by inactivity timeout:	5 ‡	minutes	
Remote Agents	Dispatch Console update interval:	1 ‡	seconds	
Friendly Servers	Automatic error correction			
↓ Data Sources	Send the latest GPS data to dis	aatchara on alart		
🔀 Email			-	
SMS	For the last:	10 🗘	minutes	
📮 License	O GPS points:	10 🌲		
	Telemetry service			
		when a radio unit is p	oowered on	
	Text Messaging service			
	Text Message Format:	Sender and Text	•	
	Custom Format:	{Sender} {Text}		
	Max. message length:	140 🗘	chars	
	Split long message into multiple messages			
	Indoor service			
	🗹 Remove offline radio from beacon			
	Ignore beacon position on alarm if GPS is fixed (only K-TERM)			
Set Defaults		Apply	OK Cancel	

## • Auto request presence timeout Set this parameter to the value of the **DeviceRefreshTime** parameter in MOTOTRBO DDMS.

#### • ARS refresh interval

Set this parameter to the value of the **PersistenceTO** parameter in MOTOTRBO DDMS.



# **LCP Repeater Settings**

Configuration		Repeater #1				
🖗 Service 🕥 Network	^	System Name:	Repeater #1			
			Repeater #1			
Redundancy		TRBOnet Peer ID:	100	÷		
Reports		TRBOnet Radio ID:	64250	+		
Service Management		TRBOnet Local Port:	50000	+		
Advanced settings		Master Repeater Conr	ection Info:			
Geocoding Servers		Master IP Address:	10.10.102.131	•		
Digital Systems		Master UDP Port:	50011	+	Test	
Services		Authentication Key:	99999			
Repeater #1		System Type:	Linked Capacity Plus			•
Privacy		System Identifier:		1		
Audio Paths		Use NAI Voice			$\mathbf{N}$	
Analog Control Station:		🗌 Use NAI Data (MNIS an	d DDMS)			
Remote Agents		Use RCM for control radio activity				
Friendly Servers						
Telephony	×					
< >						
Set Defaults			Apply		ок	Cancel

Special settings:

- TRBOnet Peer ID any unique value.
- **TRBOnet Radio ID** the default TRBOnet ID.
- **TRBOnet Local Port** any free port on the PC.

## **Audio Paths**

Configuration	Audio Paths		
Network	Load Groups Map		
Redundancy	Call Type	Group ID	Site ID
Database			
Reports	Group Call	10	Wide
Service Management	Group Call	20	Wide
🗶 Advanced settings	Private Call		
Geocoding Servers	All Call		
Radio Networks			
Services			
IP Site Connect			
Advanced setti			
Privacy			
DDMS service			
MNIS data serv			
Advanced :			
Audio Paths			
		~	
Control Station #1	Add Delete		
Control Station #1	Add Delete		Configure
Control Station #1	Add Delete		Configure

### Special settings

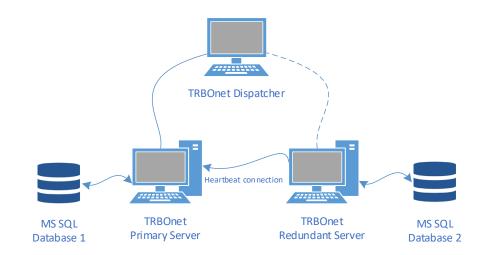
- Load Groups from Master Repeater;
- Add Local Groups manually.



# **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 (ARS confirmation disabled, Geofencing disabled, and other settings).
- 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 is to be forcibly reconnected to Primary Server.
- Primary and Redundant Servers do not exchange any data.

## **TRBOnet Redundant Server Configuration**

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



Configuration	Redundancy	
Service Service Network Redundancy Database Reports	Redundant server mode Redundancy Mode: Passive Main servers:	•
Service Management	IP Address	Port
X Advanced settings	1 10.10.234.162	4021
Geocoding Servers     Radio Networks     Remote Agents     Fineldly Servers     Telephony     Data Sources     Modbus TCP     SMS     SMS     License		
	Add Edit Delete	Test 🔺 🔻
Set Defaults	Apply	OK Cancel

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

#### • Redundancy Mode

Select the mode for a redundant server from the drop-down list.

• To add a primary server, Click Add.

Server 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 374).



#### **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		Repeater #1		
🗬 Service	^			
S Network		System Name:	Repeater #1	
🛱 Redundancy		TRBOnet Peer ID:	100	<b>1</b>
Database		TRBOnet Radio ID:	64250	* *
Reports			04230	<b>•</b>
Service Management		TRBOnet Local Port:	50000	÷
🔀 Advanced settings		Master Repeater Conr	ection Info:	
Geocoding Servers		Master IP Address:	10.10.102.131	•
Radio Networks		Master UDP Port:	50011	▲ Test
- 🐼 Digital Systems				• []
Q Services		Authentication Key:	99999	
Repeater #1		System Type:	IP Site Connect	•
Advanced settings		System Identifier:	Department 1	
		by been rechancer	Deparametre	
III Slot #1		Use NAI Voice		
Slot #2		Use NAI Data (MNIS an	d DDMS)	
Local Slots		Use RCM for control rat	dio activity	
Control Station #1				
Analog Control Stations				
Remote Agents				
Friendly Servers	<b>Y</b>			
Set Defaults			Apply	OK Cancel

## **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	
Connect to:	
Address:	127.0.0.1 ~
Port:	4021 🗘 Configure
Authentication:	/
Method:	TRBOnet Authentication V
User Name:	admin
Password:	******
Connect on startup	
	OK Cancel

• Click **Configure** to register the new primary server:



Register TRE	Onet Servers			$\times$	
🛃 🗛 📃	🕨 Edit 🛛 🛃 Delete				
Server Label		Server Address	Port	t	
Server1		10.10.164.45	402	1	
Server?	Register TRBOnet	Server			×
	Label:	Server 3			
	Address:	127.0.0.1			
	Port:	4021			
	Redundant serv	/ers:			
	Addr	ess	P	ort	
				/	
	Add	Delete	ок	Cance	<b>v</b>

- 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.