



TRBOnet PLUS Quick Start Guide

Version 5.7

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1 Introduction

1.1 About This Guide

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

1.2 About TRBOnet by Neocom Software

TRBOnet is a suite of professional applications for dispatch centers of MOTOTRBO[™] radio networks developed by Neocom Software since 2008. TRBOnet manages voice, text and data communication paths to network endpoints and provides a unified graphical dispatcher workbench interface for all the messaging and workforce orchestration tasks. Recognized as the Best Radio Application Partner by Motorola Solutions, TRBOnet enjoys a proven track record of success in business-critical radio network deployments worldwide.

The TRBOnet family of products deliver:

- Flexible, connection type independent cross-patching of subscriber groups, both preconfigured by network designers and improvised by dispatchers with a drag-and-drop ease.
- Extensive connectivity options for any mode MOTOTRBO networks with public phone, SIP and private VoIP interconnects, SMS and email gateways, intercom among multiple dispatchers.
- Comprehensive location awareness features which include integration with a variety of online and offline map providers, indoor positioning, geofencing, route and speed control and GPS event-driven workflows.
- Support for communication scenarios typical for key vertical markets, such as 'lone worker' monitoring, site alarms, job ticketing, RFID integration, field device telemetry collection and many others.
- Full audio and activity logging complemented by a rich set of configurable built-in reports.



2 Hardware and Software Requirements

	TRBOnet Server/Agent with IP connection only								
Voice Channels	4	24+							
CPU	Intel Core i5	Intel Core i5	Intel Core i7, 4 Cores	Intel Core i7, 6 Cores					
Memory	2 GB	4 GB	4 GB	8 GB	Contact technical				
HDD	1 GB for instal	support							
Sound Card	No								
	Windows 7/8.	k/10, Windows S	Server 2012/2016/2019						
Supported OS	Note: Windows Server 2012/2016/2019 requires Desktop Experience Role/Feature installed.								
Software	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	1 GB for installation files, +1 MB per 1 minute of voice recording						
Sound Card	Integrated sound card can be used.	Multi-channel Sound Card required; Recommended: 1. <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 200	8 R2 or higher					

	Dispatch Console
CPU	Intel Core i5
Memory	4 GB
HDD	600 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 TRBOnet PLUS Software and Dependencies Installation

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

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

3.1 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 others).

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.

3.2 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>

3.3 Installing TRBOnet PLUS

- Contact **Neocom Software** to obtain the latest installation package of the TRBOnet PLUS software, unzip, and run the setup file as a local administrator.
- When the TRBOnet PLUS 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	TRBO DE C
17	TRBOnet Dispatch Console This is a dispatcher computer and only Dispa	tch Console must be installed
17	TRBOnet Server and Dispatch Console This is a Server computer and you need to in Dispatch Console	e nstall Server software and
	Custom Allows users to choose which program featu they will be installed.	res will be installed and where
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 installed.	TRBO
Click on the icons in the tree below to change the	way features will be installed.
Dispatch Console Server Instance Agent Instance	TRBOnet Enterprise 5.2 Agent
	This feature requires 199MB on your hard drive.
Location: C:\Program Files (x86)\Weocom Sof Enterprise\	tware\TRBOnet Browse
com Software	

For example, you may install only TRBOnet Server Instance:



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

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



4 Initial TRBOnet Configuration

After all the required software packages are installed, some settings need to be configured. Follow the steps below to create a fully operational installation of TRBOnet that is ready for testing.

4.1 Creating New TRBOnet Database

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

• In the Configuration pane, select Database.

Configuration	Database	
Configuration ✓ Service ✓ Network ✓ Redundancy Database ✓ Reports ✓ Service Management ✓ Advanced Settings ✓ Geocoding Servers Image: Services Image: PTT over Cellular Image: Remote Agents Image: Telephony ✓ Data Sources Y Email SMS Notifications Image: Public Notifications	Database SQL Server: Database: Authentication: Login: Password: Specify the path: Path: Use custom folder Path: Use custom folder Path: Test Comme	(local)\SQLEXPRESS • TRBOnet1 • Windows • Growth and the second secon
	Upgrade Data Create Data	abase • 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 preferred name of the TRBOnet database.

Authentication

Select the authentication method for the TRBOnet database. The default method is Windows Authentication.

Login and Password

Enter a valid SQL Server login and password if the SQL Server Authentication 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.

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 PLUS\Backups - for database archives.

%ProgramData%\Neocom Software\TRBOnet PLUS\Audio - for audio.

Use custom folder to store file attachments

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

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



4.2 Installing TRBOnet Service

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

Configuration	Service
Service Network Redundancy Database Reports Service Management Advanced Settings Services PIT over Cellular Remote Agents Friendly Servers Telephony Data Sources Email SNS Notifications Push Notifications License	The TRBOnet Server service is not installed! It is recommended to run TRBOnet Server as a Windows service: it is logged on. Click the Install Service button below to install the TBOnet Server service. Service logon type: O Logon as Local System (Recommended) O Logon as User User name: NS\v.kulnichev Password: Install Service
Set Defaults	Apply OK Cancel

• In the **Service** pane, click **Install Service**.

Configuration	Service
 Service Network Redundancy Database Reports Service Management Advanced Settings Keocoding Servers Radio Systems Services PTT over Cellular Remote Agents Telephony Data Sources Email SMS Notifications Push Notifications License 	The TRBOnet Server service is installed Status: Status: Service stopped Start service Save changes and restart service Uninstall Service Uninstall Service
Set Defaults	Apply OK Cancel

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



4.3 Connecting TRBOnet Server to Master Repeater

Now TRBOnet Server must be joined to your radio network.

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

Configuration		Rac	dio S	ystems					
Service Network		V	∠ Ena	ble Radio S	ystems				
Redundancy Database			CAI Network:		12			÷	
Service Managemer	nt	с	CAI Gr	oup Netwo	rk: 225		225		÷
。Advanced Settings …、人 Geocoding Serv	/ers		Na	ame	io Systems	;	Address		Radio ID
Add MOT Add Capa A		RBO S y MAX A Expi Statio t Swift	Syster X oress on it Age	n					
SMS Notificati	Add XRC-900 Add XRT-900 Add SELEX R Add KAIROS	0 Cor 0 Con epeate Repea	ntrolle ntrolle er ater	er er	Delete				Test
Set De	Add WAVE C Add Analog S Add ED137 St Add ZENITEL	ontro Station tation . Statio	oller n on			A	kpply	ОК	Cancel
×	Set Defaults								

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

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

Configuration		Repeater #1				
💣 Service	^					
🛜 Network		System Name:	Repeater #1			
🛱 Redundancy		TRBOnet Peer ID:	100	÷		
Database		TRBOnet Radio ID:	64250	*		
Reports			0 1200	*		
Service Management		TRBOnet Local Port:	50000	÷		
X Advanced Settings		Master Repeater Con	nection Info:			
Geocoding Servers		Master IP Address:	10.10.101.139	*		
Radio Systems		Master UDP Port:	50000	*	Test	
Peneater #1		Authentication Key:	EEEEE	•		
		Addicitionadorritely.	55555			
		System Type:	IP Site Connect			*
Slot #1		System Identifier:	Department 1			
Slot #2		Lise NAT Voice				
		Lice NAL Data (MNTC and DDMC)				
🖵 PTT over Cellular						
Remote Agents		Use RCM for control ra	adio activity			
Friendly Servers						
7 Telephony						
Data Sources						
K Email						
	Ŧ					
Set Defaults			Apply		ОК	Cancel



System Name

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

TRBOnet Peer ID

Enter a Peer ID for TRBOnet Server. The Peer ID must be unique among the repeaters in the radio system. Consult your radio network administrator to enter the correct value.

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. Consult your radio network administrator to enter the correct value. The recommended value is **64250**.

TRBOnet Local Port

Enter the local port number that will be used by TRBOnet Server to establish connections for 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 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 system type.

Test

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

System Identifier

Leave this field blank.

Use NAI Voice, Use NAI Data (MNIS and DDMS)

Leave these options unselected.

Click **OK** after entering all the required values. A confirmation dialog will appear, prompting you to save the configuration and restart the TRBOnet Server service. You can also restart the service manually.



4.4 Connecting Dispatch Console to Server

The console is a client application that must be connected to the server. When you first launch Dispatch Console (**Start > All Programs > Neocom Software > TRBOnet Dispatch**), a connection dialog is displayed. Enter the required connection settings as explained below. If the Server is hosted on the same computer, you can safely accept the defaults and click OK to connect.

Connect to TRBOnet Server X	
Connect to:	
Address:	127.0.0.1 ~
Port:	4021 Configure
Authentication:	
Method:	TRBOnet Authentication $\qquad \lor$
User Name:	admin
Password:	*******
Connect on startup	
	OK Cancel

Connect to:

• Address

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

• Port

Enter the local port of the TRBOnet Server PC to accept connections from Dispatch Console. The default value is 4021.

Authentication:

Method

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

• TRBOnet Authentication

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

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

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

User Name/Password

Enter the user name and password.

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

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



• Connect on startup

Select this option to launch 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.