



TRBOnet Agent User Guide

Version 5.4

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1 About TRBOnet Software

1.1 TRBOnet Server 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.

TRBOnet Dispatch Console is a PC-based voice dispatch and data application for MOTOTRBO professional digital two-way radio systems.

1.2 TRBOnet Agent

Software agents, such as **TRBOnet Agent**, 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>1.3, IP Backend</u> <u>Network Requirements</u>).





1.3 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.



2 Installation

- 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 1 Choose the set	Type Up type that best suits your needs TRBO Definition of the suits your needs
	TRBOnet Dispatch Console This is a dispatcher computer and only Dispatch Console must be installed
	TRBOnet Server and Dispatch Console This is a Server computer and you need to install Server software and Dispatch Console
i.	Custom 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 Custom.



- On the **Choose Setup Type** page, select either Server Instance and Agent Instance or only Agent Instance.
- Accept the defaults for the rest of the setup and complete the installation.



3 TRBOnet Agent configuration

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

3.1 License Manager

• In the **Configuration** pane on the left, select **License**. In the right pane, you can see the text of your current license.

Configuration	License	Version: 5.4.0.2172
Service Kedundancy Kedundancy Kedundancy Redio Systems Redio Systems Kervices Conse	License is valid License ID: 3391297d-e6bc-469-bb95-f648ad562712 (5 Hardware ID: 4281-8A64-D473-D628-DFAC License generated by: Mike Tikhomirov License generated by: Mike Tikhomirov License generated by: Mike Tikhomirov License for: demo Active instance: [Default] License for: demo Active instance: [Default] License dinstance: [Default] Demo License Expiration date: 20 June 2020 Server limitations Server hardware keys: 42B1-BA64-D473-D628-DFAC Remote Agent connections: 3 System types: Unlimited Agent hardware keys: Any Number of master radios or master repeaters: 5 License Manager Sende Emergent Connections: 3 Sender Manager	.3)
Set Defaults	Apply OK	Cancel

To apply the new license:

- 1. Click the **License Manager** link in the right pane. The **License Manager** wizard appears.
- 2. Click Next.
- 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 Agent.
 - 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*.



3.2 TRBOnet Agent Service

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

Configuration	Service	Version: 5.4.0.2172				
Service Network Redundancy Advanced Settings Radio Systems Services	III The agent is not is completed, it is s Service, because it p allows to start agen	installed as a Windows Service. Once configuring trongly recommended to run agent as a Windows rovides additional stability and reliability and it automatically after computer reboot.				
	Service logon type:					
	Logon as Local	O Logon as Local System				
	O Logon as User					
	User name:	NS\v.kulinichev				
	Password:					
	Install Service					
	View Log Entries	Export Configuration Import Configuration				
Set Defaults		Apply OK Cancel				

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

Logon as Local System

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

Logon as User

Choose this option to use a different account to run the service as a Windows service. This account must allow the user to run services in Windows, have read and write access to the **Neocom Software** folder and subfolders in the "**%ProgramFiles%**" (or, "**%ProgramFiles(x86)%**" for 64bit OS) and "**%ProgramData%**" folders. For example, using such an account may be required in the following cases:

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



3.3 Network Parameters

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

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

Network interface

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

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

Command port

Enter the port number to be used by a Server to connect to the Agent (4020, by default).

First VolP port

Enter the number of the first VoIP port for audio communications between the Agent and Server (4022, by default). Each additional Server will establish a connection on the next available port number.

Encrypt data over network

Select this option to guarantee the security of data transfer between TRBOnet Server and 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.



3.4 Backup Configuration

TRBOnet Agent supports a redundant (secondary/backup) configuration which allows automatic switching from the primary to the redundant (secondary/backup) agent in case of failure of the primary agent. Dispatch Console operation will not be interrupted.

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

Configuration	Redu	Indan	су		Version: 5.4.0.217		
Service Network Redundancy Advanced Settings Dadie Surface	Red Mair	Redundant agent mode Redundancy Mode: Main agents:			Passive		
Services			IP Address		Port		
License	1	\checkmark	10.10.235.162		4020		
		Add	Edit	Delete	Teet A V		
		Add	Edit	Delete	Test A V		

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

Select a mode for the backup agent from the drop-down list.

• To add a main agent, click **Add**.

Agent Propertie	5	×			
IP Address: 10.10.235.162					
Port:	Port: 4020				
ОК	Cancel				

• IP Address

Type the IP address of the main agent.

• Port

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



3.5 Advanced Settings

• In the Configuration pane, select Advanced Settings.



- In the Advanced Settings pane, specify the following advanced parameters:
 - Language

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

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).

3.6 Radio Systems

- In the Configuration pane, select Radio Systems.
- In the Radio Systems pane, select or make sure Enable Radio Systems is selected.
- In the Radio Systems pane, specify the following parameters:
 - CAI Network

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

CAI Group Network

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







All radio system elements based on MOTOTRBO services are represented in the **Registered Radio Systems** table, including their type (Control Station, Repeater, and others), IP Address, and Radio ID (1):

• To add an element to the system, click **Add** and select the element type from the drop-down menu (2).

3.6.1 Services

- In the Configuration pane, under Radio Systems, select Services:
- In the Services pane, specify the following Radio System Services-related parameters:
 - Automatic Registration Service (ARS)

Select this option to enable the ARS service for the radios. When the radio powers up, it automatically registers with the server. This feature is used with data applications, that is, any data traffic on this channel is associated with an application server such as MOTOTRBO Text Messaging or MOTOTRBO Location Services.

• Port

Enter the local port number for the ARS service (4005, by default).



Telemetry service (TLM)

Select this option to enable the Telemetry service, which is the wireless transmission and reception of measured quantities for remotely monitoring environmental conditions or equipment parameters.

• Port

Enter the local port number for the Telemetry service (4008, by default).

Text Messaging service (TMS)

Select this option to enable the Text Messaging service which is used to exchange text messages between the radios and the dispatchers.

• Port

Enter the local port number for the Text Messaging service (4007, by default).

Location service (GPS / Indoor)

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

• Port

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

Job Ticketing service (JTS)

Select this option to enable the Job Ticketing service.

• Port

This is the local port number for the Job Ticketing service (4013, by default).

Text Messaging service DMR

Select this option to enable the DMR-based Text Messaging service.

• Port

Enter the local port number for the DMR-based Text Messaging service (5016, by default).

Indoor service (K-TERM)

Select this option to enable the Indoor Location service.

• Port

Enter the local port number for the Indoor service (3022, by default).

Indoor LAN Service (K-TERM)

Select this option to enable the Indoor LAN service.

• Port

Enter the local port number for the Indoor LAN service (3001, by default).

Tallysman Sprite service

Select this option to enable the service for autonomous event and aggregated event reporting to provide significant reduction in GPS data overhead.



• Port

Enter the local port number for the Tallysman Sprite service (4004, by default).

FS 5000 location service (GPS)

Select this option to enable the FS 5000 location service, which is a service for transmitting GPS data packages. This service uses FS 5000 Option Board.

• Port

Enter the local port number for the FS 5000 location service (4004, by default).

Swift.Tracker v.1 service

Select this option to enable the service to transmit coordinates and data packages via a radio channel using the Swift.Tracker TR001 device.

• Port

Enter the local port number for the Swift.Tracker v.1 service (4004, by default).

Swift.Tracker v.1 service (GSM channel)

Select this option to enable the service to transmit coordinates and data packages via a radio channel and a reserved GSM channel using the Swift.Tracker TR001 device.

• Port

Enter the local port number for the Swift.Tracker v.1 service with a GSM 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 (GSM channel)

Select this option to enable the service to transmit coordinates and data packages via a radio channel and a reserved GSM channel using the Swift.Tracker TR001 device (version 2).

• Port

Enter the local port number for the GSM channel of the Swift.Tracker v.2 service with a GSM channel (4180, by default).

Extended Text Messaging service

Select this option to enable the Extended Text Messaging service to include sending detailed preconfigured templates with the help of TRBOnet Dispatch Software.

• Port

Enter the local port number for the Extended Text Messaging service (4010, by default).



Extended Data service

Select this option to enable the Extended Data service that will be used for communication with TRBOnet Communicator.

• Port

Enter the local port number for the Extended Data service (4106, by default).

Telemetry service Novox

Select this option to enable the Telemetry service based on NOVOX devices.

• Requests port

Enter the local port number to listen for requests (8090, by default).

• Events port

Enter the local port number to listen for events (8091, by default).

• G4S RS232 service

Select this option to enable the custom developed G4S RS232 service.

• Port

Enter the local port number for the G4S RS232 service (4004, by default).

Zebra printer service

Select this option to enable the service for printing Job Tickets. A Zebra printer is connected to a radio via Bluetooth. The radios should be Bluetooth-enabled.

• Port

Enter the local port number for Zebra printer service (4072, by default).

Forward Data service

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

• Port

Enter the local port number for Forward Data service (4011, by default).

3.6.2 Adding a MOTOTRBO Repeater

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



Configuration			Dadio Sustama			Variant E 4 0 2172
Service			Fnable Radio	Systems		version: 5.4.0.2172
🐳 Redundancy				o you no		
🔀 Advanced Settings			CAI Network:		12	÷
Radio Systems	📥 Add		RBO System	prk:	225	÷
License	Add	I Capacity	MAX	lio Systems		
	🖶 Add	DIMETRA	A Express		Address	Radio ID
	🕂 Add	Control	Station			
	🕂 Add	I TRBOnet	: Swift Agent			
	🕂 Add	I Friendly	FS-1000 Station			
	🖶 Add	I XRC-900	0 Controller			
	🖶 Add	I XRT-900	0 Controller			
	🛉 Add	I SELEX Re	epeater			
	🖶 Add	KAIROS	Repeater	Dalata		Test
	🖶 Add	I WAVE C	ontroller	Delete		Test
Set Def	🖶 Add	l Analog S	Station	Арр	ly ОК	Cancel
	🛉 Add	I ED137 St	ation			
	🖶 Add	I ZENITEL	Station			
	🗙 Rem	nove All				
	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			Version: 5.4.0.2178
Provide Service Servic	System Name:	Repeater #1		
Redundancy	TRBOnet Peer ID:	100	÷	
Radio Systems	TRBOnet Local Port:	50000	• •	
Repeater #1	Master Repeater Con			
Advanced Settings	Master IP Address:	10.10.102.131	•	
	Master UDP Port:	50000	+	Test
I Slot #2	Authentication Key:			
License	System Type:	IP Site Connect		•
License	System Identifier:	Department 1		
	Use NAI Voice			
	🗌 Use NAI Data (MNIS a	nd DDMS)		
	Use RCM for control ra	adio activity		
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 Agent. 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 Agent 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 system type.

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.

Use NAI Data (MNIS and DDMS)

Select this option to connect to the repeater via NAI (Network Application Interface) for Data transfer.

• 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.

3.6.2.1 Advanced Settings

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

Configuration	Advanced Settings		Version: 5.4.0.2172	
💣 Service 🌍 Network	Voice Call Hang Tin	ne (ms):		
🛱 Redundancy	Group Call:	3000	*	
Advanced Settings	Private Call:	4000	÷	
Services	Emergency Call:	4000	*	
Repeater #1	TX Preamble:	120	\$	
Privacy	TX Timeout:	60	seconds	
Slot #1	Phone System:	Motorola Phone System		
EL Local Slots	Thome by been			
	Allow CSBK Data			
Set Defaults		Apply	OK Cancel	

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

Voice Call Hang Time (ms):

Group Call

This value sets the duration the repeater reserves the channel after the end of a group call transmission. During this time, only members of the group that the channel is reserved for can transmit.

Private Call

This value sets the duration a radio keeps the private call setup after a user releases the PTT button. This is to avoid setting up the call again each time a user presses the PTT button to transmit. During this time, other radios can still transmit since the channel is essentially idle. After the hang timer expires, the radio transmits using the *TX Contact Name* parameter specified for this channel in MOTOTRBO CPS.

Emergency Call

This value sets the duration the repeater reserves the channel after the end of an emergency call transmission. During this time, only members of the Group that the channel is reserved for can transmit.

Note: The values of the above three parameters must be taken from the corresponding parameter values programmed for the repeater via MOTOTRBO CPS in *General Settings*.



TX Preamble

Enter the value of the TX Preamble. The TX Preamble is a string of bits added in front of a data or control message (Text Messaging, Location Messaging, Registration, Radio Check, Private Call, and other message types) before transmission. The acceptable range is 0 - 8640 ms. The recommended value is 120 ms.

TX Timeout

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

Phone system

From the drop-down list, select the system for phone calls:

• Motorola Phone System

This system uses a special call type with the parameters specified for a radio unit in MOTOTRBO CPS. The Motorola Phone System is recommended for IP Site Connect mode to minimize Radio response time.

• 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.

3.6.2.2 Privacy

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

Configuration	Privacy			Versi	on: 5.3.5.1872
	Privacy Type: Basic Privacy Key ID Enhanced Privacy Ke	Enhar 1	nced 💌		
Advanced Settings Advanced Settings Advanced Settings Advanced Settings Slot #1 Slot #2 Cli Local Slots License	Alghoritm ARC4 (40 bit) ARC4 (40 bit) AES (256 bit) AES (256 bit) Legac	ID 1 .y	Name	Value	File
Set Defaults			Apply	ок	Cancel

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



Privacy Type

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

Basic Privacy Key ID

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

Enhanced Privacy Keys

Here you add enhanced privacy keys when the **Enhanced** privacy type is selected.

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

✓ Algorithm

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

3.6.2.3 DDMS Service

The DDMS, or Device Discovery and Mobility Service is a service for tracking the presence of radio subscribers in the radio network and transmitting the data to the server.

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

Configuration	DDMS servic	e			Version: 5.4	.0.2172	
Service Service Network Redundancy Advanced Settings	Use DDN Local por	↓ Test					
Adio Systems	Service p Authenti	oort: cation Port:	3000 ¢		÷		
Advanced Settings	Redunda	nt services: Service IP /	Address	Service port	Local port	Local port	
Advanced Settings	1	10.10.101.	207	3000	0		
🖵 License							
	Ad	d D	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.

Redundant services

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

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

Advanced Settings

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



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

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

• To receive data from all radios in the system, leave this box blank.



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

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

Events

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

Specify external sites

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

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

3.6.2.4 MNIS Data Service

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

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



- In the MNIS data service pane, specify the following MNIS data servicerelated settings:
 - Use Data Gateway
 Select this option to enable the MNIS data service for the server.
 - Service is on a local host
 Select this option if the MNIS data service will be used on the local PC.
 - IP Address

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



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

Control port

Enter the number for the MNIS control port.

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

MNIS Service

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

Redundant services

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

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

Advanced Settings

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

Configuration	Advanced Settings	Version: 5.4.0.2172
Service Network Advanced Settings Radio Systems Services Repeater #1 Advanced Settings Privacy Advanced Settings License	 Add network routes to the Windows routing ta Add port forwarding rules to the remote MNIS ✓ Send data to group over control port Radio Range: 1	ible service
Set Defaults	Apply	OK Cancel

- In the **Advanced settings** pane, you can specify settings that relate to the connected MNIS data service:
 - Add network routes to the local Windows routing table
 Select this option to allow TRBOnet Agent 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 Agent 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.

3.6.2.5 Slots

Note: The slots are available only when **IP Site Connect** is selected in the **Repeater** pane.

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



• 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.

3.6.2.6 Local Slots

While on a local slot, voice or data are not transmitted between sites in IPSC systems. Due to MOTOTRBO limitations TRBOnet Agent 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	Local Slots	Versi	ion: 5.4.0.2172
🔗 Service	Load Peers Map		
# Redundancy	Name	Peer ID	Peer Slot
X Advanced Settings	✓ Local Jone's	1 ‡	Slot #1
Radio Systems			
🗘 Services			
Repeater #1			
X Advanced Settings			
Privacy			
Slot #1			
SIOT #2			
Lechie			
	Add Remove		
Set Defaults	Apply	ОК	Cancel

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

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

From the drop-down list, select the Peer Slot.

3.6.2.7 Audio Paths

The Audio Paths are talk paths of the system to make and receive Voice Calls; in general, they are talk groups. TRBOnet Agent 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**.



Service			
Network	Load Groups Map		
Redundancy	Call Type	Group ID	Site ID
Advanced Settings	Group Call	10	Wide
Radio Systems	Group Call	20	Wide
Services	V Private Call	-	
	All Call		
Audio Paths	Add Delete		

- 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>.

3.6.3 Adding a Capacity MAX System

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

Note that a Capacity Max system can only be integrated with TRBOnet PLUS software. For more information on how to configure and deploy a Capacity MAX system, see *TRBOnet PLUS MOTOTRBO Capacity MAX Deployment Guide*.

3.6.4 Adding a DIMETRA Express system

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

For more information on how to configure and deploy a DIMETRA Express system, see *TRBOnet DIMETRA Express Deployment Guide*.



3.6.5 Adding a Control Station

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

Configuration	Control Station #1	Version: 5.3.5.187
Service Service Advanced Settings Radio Systems Control Station #1 X dvanced Settings License	Name: Radio ID: IP Address: Mode: System Identifier: Use the radio for RX Playback device: Recorder device:	Control Station #1 64250 • 192. 168. 10.2 • ¢ Test IP Site Connect • Department 1 Data only (GPS Revert or Data Revert) Speakers (Logitech USB Headset) • ¢ Primary Sound Capture Driver • ¢
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.

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.

3.6.5.1 Advanced Settings

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

Configuration	Advanced Settings			Version: 5.4.0.2172
Service Network Redundancy Control Settings Control Station #1 Contro	 Automatically reset Automatically hand Emergency Call/Ala Use front micropho Always transmit with Use serial port and port: Serial port: TX Timeout: Signaling System: Allow CSBK Data 	t alarm mode lie call alert arm indication me hen the PTT is press PTT key up 60 None	ed ("Impolite"	channel access) :conds onfigure
Set Defaults		Apply	ОК	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.

Voice Calls				*
Call Type	Telegram ID	Source ID	Target ID	n
Private Call:	1 🗘 Encoder:		A1 A2 A3 A4	
	Decoder:	A1 A2 A3 A4		
Group Call:	1 🗘 Encoder:		A1 A2 A3 A4	T
	Decoder:	A1 A2 A3 A4		
All Call:	1 🗘 Encoder:		A1 A2 A3 A4	T
	Decoder:	A1 A2 A3 A4		
heck Radio				*
all Alert				*
nable Radio				¥
Disable Radio				×

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

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



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

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

• Quick Call II MOTOTRBO

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

Allow CSBK Data

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

3.6.5.2 Audio Paths

The Audio Paths are talk paths of the system to make and receive Voice Calls; in general, they are talk groups. TRBOnet Agent requires that all audio paths of a radio system be registered in its configuration. If an audio path is not registered, the TRBOnet operator will not be able to receive and transmit to the corresponding talk group.

Note: Audio paths are available only when one of the following modes is selected: Capacity Plus, Linked Capacity Plus, Connect Plus, or Capacity MAX.

• In the **Configuration** pane, under the corresponding **Control Station**, select **Audio Paths**.

Configuration	Audio Paths	Version: 5.4.0.2172
Service		
Vetwork	Site ID: 1	
🕸 Redundancy	Call Type	Group ID Site
X Advanced Settings	Group Call	10 Wide
Radio Systems	Group Call	20 Wide
Services	Private Call	
Control Station #1	All Call	
Advanced Settings		· · · · · · · · · · · · · · · · · · ·
Audio Paths		
License		
	Add Delete	
Set Defaults	Apply	OK Cancel

- In the Audio Paths pane, specify the following Audio Path-related settings:
 - To add an audio path to the system, click **Add**.
 - Make sure the check box in the first column is selected to make and receive voice calls from the selected subscriber.



- From the drop-down list, select the **Call Type** for the audio path. The available call types are All Call, Group Call, and Private Call.
- Enter the **Group ID**, which is an ID of the talk group the dispatcher can make calls to. The Group ID is not applicable for Private Calls and All Calls.
- In the Site column, select either Local or Wide. The value Wide means that the audio path will be to all sites in the system and not just to the local site.

3.6.6 Adding a TRBOnet Swift Agent

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

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

Configuration	TRBOnet Swift Agent #1		Version: 5.4.0.21
Configuration Service Service Ketwork	TRBOnet Swift Agent #1 Name: Radio ID: IP Address: Port: TRBOnet Local Port: Mode: System Identifier: Use the radio for RD VoIP port: Audio Format:	TRBOnet Swift Age 64250 10.10.188.50 8002 50000 Single Control Stati Department 2 Data only (GPS Rever 4000 PCM 8 kHz 16 bit	Version: 5.4.0.21
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).



TRBOnet Local Port

Enter the local port number that will be used by TRBOnet Agent to establish a connection to the TRBOnet Swift Agent. Use unique port numbers for each swift agent connection if there are several swift agents connected.

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.

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.

3.6.6.1 Advanced Settings

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

Configuration	Advanced Settings		Version: 5.4.0.2172
Configuration	Advanced Settings	alarm mode m Indication en the PTT is pressed (60 KeyUp / DeKey None	Version: 5.4,0,21/2 "Impolite" channel access) seconds Configure
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.



3.6.6.2 Redundancy

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

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

Configuration	Redu	Indan	cy			Version: 5.4.0.217
Service	Red	undar	t agents:			
Bedundancy			IP Address	Port	Lo	cal Port
X Advanced Settings	1	\checkmark	101.10.0.210	8002	0	
Radio Systems						
Services						
TRBOnet Swift Agent #1						
X Advanced Settings						
Redundancy						
License						
		Add	Delete		Т	est 🔺 🔻
Set Defaults				Apply	ОК	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.

3.6.7 Adding an XRC Controller

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

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



Configuration	Controller #1		Version: 5.4.0.2172
🗬 Service			
S Network	Name:	Controller #1	
🕸 Redundancy	IP Address:	10, 10, 100, 100 -	Test
🔀 Advanced Settings	a vida coor		
🔚 Radio Systems	System Identifier:	Connect Plus 1	
Services			
Controller #1			
🗘 Services			
🗰 🛱 Redundancy			
📮 License			
Set Defaults		Apply	OK Cancel

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

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

IP Address

Enter the IP Address of the XRC controller network interface.

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

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

3.6.7.1 Services

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

Configuration	Services		Version: 5.4.0.2172
Configuration Service Service Redundancy Advanced Settings Services Services Services Advanced Settings Services Advanced Settings Services	Services Automatic Registration Controller port: Local port: Location service (GPS / Controller port: Local port: Use adaptive locatio	4005 0 1000 4001 4001 0 0 0 0 0 0 0 0 0 0 0	Version: 5.4.0.2172
Le License	 Text Messaging service Controller port: Local port: Dispatcher ID: Multi Gate Connection Subscribe ID: 	a (TMS) 4007 4007 64250	
Set Defaults		Apply	OK Cancel

• In the **Services** pane, specify the following XRC controller-related services:



 Automatic Registration service (ARS) provides an automated data application registration for the radio. When the radio powers up, it automatically registers with the server. This feature is used with data applications, that is any data traffic on this channel is associated with an application server, such as MOTOTRBO Text Messaging or MOTOTRBO Location Service. This option is selected by default and cannot be cleared.

• Controller port

Enter the controller's port number for ARS service (4005, by default).

• Local port

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

Location service (GPS)

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

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.**

3.6.7.2 Advanced Settings

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



Configuration	Advanced Settings			Version: 5.4.0.217
Configuration Service Network Redundancy Advanced Settings Radio Systems Services Controller #1 Services Advanced Settings Redundancy Redundancy Redundancy Redundancy Redundancy	Advanced Settings Radio ID list: Specify external site Site ID 251 252	100-200 S: Presence	Voice	Version: 5.4.0.217 ? Data
₩ Redundancy	Add	Delete		
Set Defaults		Appl	y Oł	Cancel

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

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

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

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

Specify external sites

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

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

3.6.7.3 Redundancy

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

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



Configuration	Redundar	псу		Version:	5.4.0.2172			
💣 Service 🛜 Network	Redunda	Redundant controllers:						
🛱 Redundancy		IP Address	Controller port	Local port				
Advanced Settings Advanced Settings Radio Systems Services Services Advanced Settings Advanced Settings Redundancy License	1	10.10.101	4005		•			
	Ado	Delete		Test				
Set Defaults			Apply	ОК	Cancel			

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

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

Controller Port

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

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

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

3.6.8 Adding an XRT Controller

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

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



Configuration	Controller #1			Version: 5.4.0.2172
💣 Service				
S Network	System Name:	Controller #1		
🕏 Redundancy	Radio ID:	64250	\$	
Advanced Settings Radio Systems	Start Local Port:	0	\$	
Services	XRT-9000 Controller I	info:		
Controller #1	Controller IP Address:	10.10.234.102	•	
Services	Controller TCP Port:	10001	+	Test
Redundancy	User Name:	Admin		
Controller #1	Password:	•••••		
Privacy Data Path	System Identifier:	Connect Plus 1		
Audio Paths	Monitor Voice session	s (without audio)		
Redundancy				
📮 License				
Set Defaults		Apply	0	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 Agent. 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.

3.6.8.1 Privacy

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

Configuration	Privacy			Vers	ion: 5.3.5.1872
Controller #1 Contr	Privacy Type: Basic Privacy Key ID: Enhanced Privacy Key Alghoritm ARC4 (40 bit) ARC4 (40 bit) AES (256 bit) AES (256 bit) Legacy Add	Enhar 1 ID 1	Name	Value	File
Set Defaults			Apply	ОК	Cancel

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

Privacy Type

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

Basic Privacy Key ID

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

Enhanced Privacy Keys

Here you add enhanced privacy keys when the **Enhanced** privacy type is selected.

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

✓ Algorithm

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



3.6.8.2 Data Path

The Data Paths are used to transmit data in a Connect Plus system.

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

Configuration	Data Path		Ve	ersion: 5.4.0.2172
Configuration Service Network Redundancy Advanced Settings Radio Systems Services Controller #1 Services Advanced Settings Redundancy Controller #1 Conformation Conformation Configuration Conf	Data Path Data Service: Radio ID:	Autodetect 64251	vi	ersion: 5.4.0.2172
Privacy Data Path Data Path Audio Paths Redundancy Cicense Set Defaults		Apply	ОК	Cancel

- In the **Data Path** pane, specify the following data path-related settings:
 - Data Service
 From the drop-down list, select the data service to be used to transfer data.
 - Radio ID

Enter the Radio ID of the data service.

3.6.8.3 Audio Paths

The Audio Paths are talk paths of the system to make and receive voice calls; in general, they are talk groups. TRBOnet Agent 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**.





- 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.

3.6.8.4 Redundancy

A Redundant XRT Controller will be used when a connection to the Main XRT Controller is lost.

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

Configuration	Redu	Indan	cy			Version: 5.4.	0.217
Configuration Service Network Redundancy Advanced Settings Radio Systems Services Services Services	Red	undan undar	t controllers: Controller IP Address 10.10.234.110	Controller TCP	Port 5	Version: 5.4. Start Local Por	0.217
Advanced Securitys							
		Add	Delete		Te	est	
Set Defaults				Apply	OK	Can	cel

- 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.

3.6.9 Adding a Selex Repeater

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

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

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

Name

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

Radio ID

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

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

Repeater Mode

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



3.6.9.1 Advanced Settings

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

- In the **Advanced Settings** pane, specify the following Selex Repeater-related advanced settings:
 - Keep Alive Interval

Enter the time interval, in seconds, for TRBOnet Agent 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).

3.6.9.2 Slots

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

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

Configuration	Slot #1		Version: 5.4.0.217
Configuration Service Network Redundancy Advanced Settings Services Services Selex #1 Solt #1 License License	Slot #1 Slot #1 Name: TRBOnet IP Address: SELEX IP Address: Use the gateway for Use Encryption Always transmit whe	Slot 1 10.10.100.99 + ¢ 10.10.9.30 + ¢ rest + rest + en the PTT is pressed ("Impolite	Version: 5.4.0.217 Port: 6080 ¢ Port: 6080 ¢
Selex #1	Use the gateway for Use Encryption Always transmit whe Data Call Confirmed	Test r RX Data only (GPS Revert or I en the PTT is pressed ("Impolite	Data Revert) " channel acces:
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.

3.6.9.3 Tier III and Audio Paths

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

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



Configuration	Tier III		Ver	sion: 5.4.0.2172
🖗 Service	🗹 Tier III			
🖗 Redundancy	Name:	Tier III		
🔀 Advanced Settings	TRBOnet IP Address:	10.10.100.99	+ ¢ Port	: 6080 🛟
Radio Systems	SELEX IP Address:	10.10.9.30	▼ Port	6080 🗘
Selex #1		Test		
Advanced Settings	Use the gateway for R Use Encryption Always transmit when Data Call Confirmed	X Data only (GPS	ed ("Impolite" ch	ı Revert) annel access)
Set Defaults		Apply	ОК	Cancel

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

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

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

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

- To configure Audio Paths:
- In the **Configuration** pane, under the corresponding **Selex**, select **Audio Paths**.

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

Configuration	Audio Paths	Version: 5.4.0.2172
Configuration Service Network Redundancy Advanced Settings Radio Systems Services Services Selex #1	Audio Paths Call Type Group Call Group Call Private Call All Call	Version: 5.4.0.2172 Group ID 10 20
Advanced Settings Ther III Audio Paths		
Cup6 Is	Add Delete	0%0

- 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.

3.6.9.4 Analog channel

The Selex repeater can also use the Analog channel.

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

Configuration	Analog	Version: 5.4.0.2
Configuration Service Redundancy Advanced Settings Corrices Services Services Setwices Setwices License	Analog Name: TRBOnet IP Address: SELEX IP Address: Use the gateway for Use Encryption Always transmit whe Data Call Confirmed	Version: 5,4,0,2 Analog 10,10,100,99 • ¢³ Port: 6080 ‡ 10,10,9,30 • Port: 6080 ‡ Test RX Data only (GPS Revert or Data Revert) n the PTT is pressed ("Impolite" channel access)
	Data Call Confirmed Private Call Confirme	d
Set Defaults		Apply OK Cancel

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

Name

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

TRBOnet IP Address

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

SELEX IP Address

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

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

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



3.6.10 Adding a Kairos Repeater

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

- Note: When the Kairos repeater is connected, the following TRBOnet Dispatch features are not supported: Remote Monitor, Disable Radio, Enable Radio, Kill Radio, and Telemetry.
- In the **Radio Systems** pane, click **Add**. Or, in the **Configuration** pane, right-click **Radio Systems**.
- In the drop-down menu, click Add KAIROS Repeater.

Configuration	Kairos #1	Version: 5.4.0.2172
Service Network Redundancy Advanced Settings Radio Systems Services Services	Name: IP Address: User Name: Password: Radio ID: Repeater Mode:	Kairos #1 10.10.155.130 • kairos •••••• Test 64250 • Mixed (Analog and Digital) •
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.



3.6.10.1 Advanced Settings

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

Configuration	Advanced Settings		Version: 5.4.0.217
🚰 Service			
🕥 Network	Keep Alive Interval:	10	seconds
Redundancy	TX Timeout:	60	≜ seconds
🗶 Advanced Settings			•
Radio Systems	Voice Call Hang Time	e (ms):	
🏠 Services	Group Call:	3000	* *
Kairos #1	Private Calls	4000	A
X Advanced Settings	Flivate Call.	4000	-
I Slot #1	Emergency Call:	4000	÷
Slot #2			
Analog			
License			

- In the **Advanced Settings** pane, specify the following Kairos Repeater-related advanced settings:
 - Keep Alive Interval

Enter the time interval, in seconds, for TRBOnet Agent 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.



3.6.10.2 Slots

The Kairos repeater has two digital slots (in **Digital** mode) and one analog slot (in **Mixed** or **Analog** mode) to transmit voice and data.

• In the **Configuration** pane, under the corresponding **Kairos**, select **Slot #1** or **Slot #2** (or **Analog**, if you have selected **Mixed** or **Analog** mode).

Configuration	Slot #1	Version: 5.4.0.2172
Configuration Service Network Redundancy Advanced Settings Kairos #1 Solt #1 Solt #2 Analog Configuration	Slot #1 ✓ Slot #1 Name: Audio Codec: Audio port KAIROS: Audio port TRBOnet: Data port KAIROS: Data port TRBOnet:	Version: 5.4.0.2172 Slot 1 G.711µ-Law/8000 ▼ 40000 ↓ 40001 ↓ 40001 ↓
License		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.

3.6.11 Adding a Wave Controller

Before creating a connection to the Wave controller, make sure the Wave server is configured to allow 3rd party applications to connect with a Neocom Software-specified license key.

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



Configuration	Wave controller #1		Ve	ersion: 5.4.0.217
Service Service Redundancy Services Services Unamod Systems Services Unamod Services Unamod Services Unamod Services Unamod Services Unamod Services Servic	Name: Connection: ✓ Use proxy for connect Controller IP Address: Controller Port: TRBOnet Local Port: User Name: Password: Profile:	Wave Server 1 ction 10.10.150.110 4502 0 test4 ******* all-channels Test	•	•rsion: 5.4.0.217
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 Agent 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.

3.6.12 Adding an Analog Control Station

TRBOnet Dispatch Software allows using analog radios as control stations.

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



Configuration	Control Station A1	Version:	5.3.5.187
 	Name:	Control Station A1	
🔀 Advanced Settings	Playback device:	Primary Sound Driver	- ⊅
Radio Systems	Recorder device:	Primary Sound Capture Driver	* ¢
H Control Station A1	Serial port:	COM1 -	
📮 License	Always transmit wh	en the PTT is pressed ("Impolite" channel acces	5)
	TX Timeout:	60 🗘 seconds	
	Mic delay time:	0 ¢ milliseconds	
	Extended protocol:	None	-
	Signaling System:	Quick Call I	-
		Configure	
Set Defaults		Apply OK	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.

Signaling System

From the drop-down-list, select the signaling system (**Quick Call I** or **Quick Call II**). Click the **Configure** link and specify desired Quick Call settings. Selecting the signaling system is available only if **None** is selected in the **Extended Protocol** list.

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		Version: 5.3.5.1872
Service Network Redundancy Redundancy Advanced Settings Reduo Systems Control Station A1 Serial Port License	Baud Rate: Data Bits: Parity: Stop Bits: Handshake:	19200 \$ 8 \$ None * 1 * None *	
Set Defaults		Apply	K Cancel

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



4 **TRBOnet Server configuration**

This section describes how to connect TRBOnet Agent to TRBOnet Server. 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 **Remote Agents**.

Configuration		Remote Agents		Version	n: 5.4.0.2
Slot #1	^				
III Slot #2		Registered remote Ager	nts:		
Local Slots		Agent Name	IP Address	Port Red	lundancy
CP1		Agent: 1	10.10.110.190	4020 No	
Privacy					
DDMS service					
Advanced Settings					
MNIS data service					
Advanced Settings					
Audio Paths					
🚛 PTT over Cellular					
🔣 Advanced Settings					
TRBOnet.Mobile gateway #	L				
Remote Agents					
Agent: 1					
Redundancy					
Friendly Servers					
Telephony					
↓ Data Sources					
K Email					
CA SMS	~	Add De	lete		Test
< >>					
Set Defaults			Apply	ок	Cancel

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

Configuration	Agent: 1		Version: 5	.4.0.2177
Configuration Slot #1 Slot #2 Slot #2 CP1 Advanced Settings Privacy DMS service Advanced Settings MNIS data service Advanced Settings Those Advanced Settings PTT over Cellular Advanced Settings PTT over Cellular Advanced Settings PTT over Cellular Advanced Settings PTT over Cellular Advanced Settings PTT over Cellular Remote Agents PTT ever Settings PT ever Settings PT ever Settings Settings PT ever Settings Settings Settings PT over Cellular Settings PT over Cellular PT over Cellular Settings PT over Cellular Settings PT over Cellular Settings PT over Cellular Settings PT over Cellular Settings S	Agent: 1 Agent Name: IP Address: Port: (a) Use all services Use only specific Service Na	Agent: 1 10.10.110.190 4020 d services me	Version: 5 Test	.4.0.2177
Set Defaults		Apply	ОКС	ancel

- In the Agent pane, specify the following parameters:
 - Agent Name

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

• IP Address

Enter the IP address of the agent.

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



• 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.

4.1 Redundancy

A Redundant remote agent will be used when a connection to the Main remote agent fails.

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



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

Agent Name:	Backup Agent 2	
IP Address:	10.10.110.101	
Port:	4022	\$ Test
Ouse all service	ces	
O Use only spe	cified services	
	e Name	
Load servic	ces from agent	



• 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.