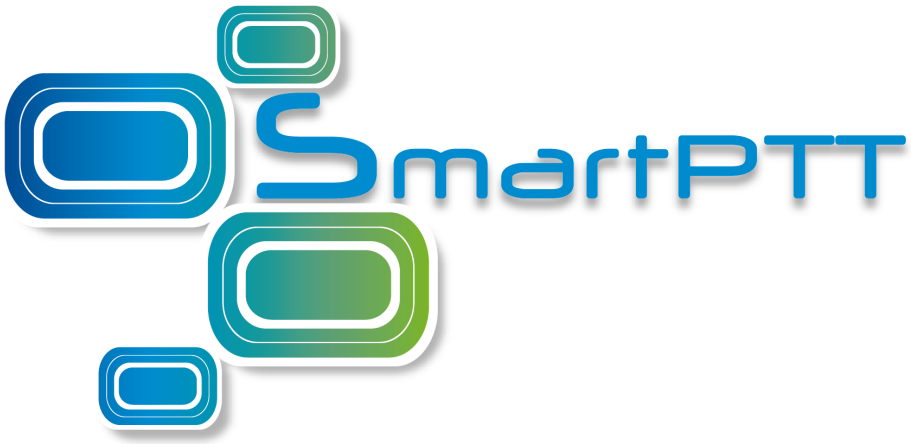


Version 9.2

SmartPTT PLUS

Capacity Max Configuration Guide

Januar 2018

elcomplus

Contents

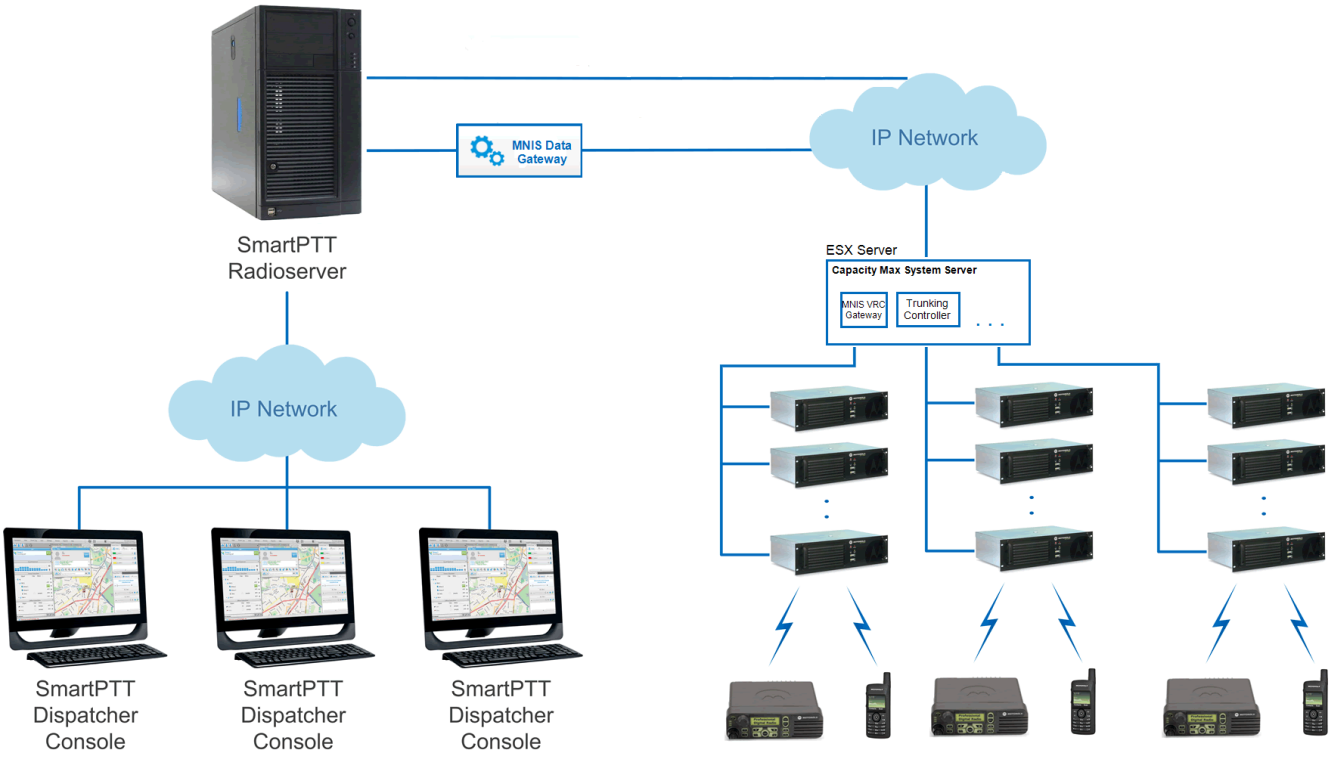
Capacity Max

Capacity Max is a trunking MOTOTRBO system that supports the European Telecommunications Standards Institute (ETSI) Digital Mobile Radio (DMR) Tier III operation.

Capacity Max system represents the enhancement of the Linked Capacity Plus functionality. It can include up to 15 sites and up to 15 trunked repeaters with up to 3,000 users per site. One slot on each site is allocated as a control channel. Capacity Max also supports data revert repeaters: up to 6 per site and 12 time channels per site.

Capacity Max system supports connection by using control stations. The parameters of the control station correspond to the parameters of an ordinary MOTOTRBO control station.

Capacity Max system offers the simple and efficient system architecture that utilizes standard Internet protocol (IP) network with a centralized Capacity Max System Server (CMSS).



CMSS represents the VMware Sphere version 5.5 ESX server and includes the following virtual resources:

- Trunking Controller based on the Red Hat Linux
- MNIS VRC gateway

- Radio Management application that is used instead of *MOTOTRBO Customer Programming Software* (MOTOTRBO CPS) to configure the system

The system architecture also includes the MNIS Data Gateway, which is installed separately.

- High security. All voice, data and control traffic within the IP network is encrypted, and all radios are securely authenticated
- High level of reliability and resilience. The system can include an optional redundant server in addition to the main server and up to three alternate control channels per site

Capacity Max is compatible with all MOTOTRBO repeaters, except DR3000 series with the 8MB RAM, and all MOTOTRBO 4000 series portable and/or mobile radio stations.

To configure the Capacity Max system in *SmartPTT Radioserver Configurator*, you should have the following programs installed:

- *Radio Management* – to get the settings of the preconfigured virtual resources
- *MOTOTRBO Network Interface Service Configuration Utility* – to set up the MNIS Data Gateway

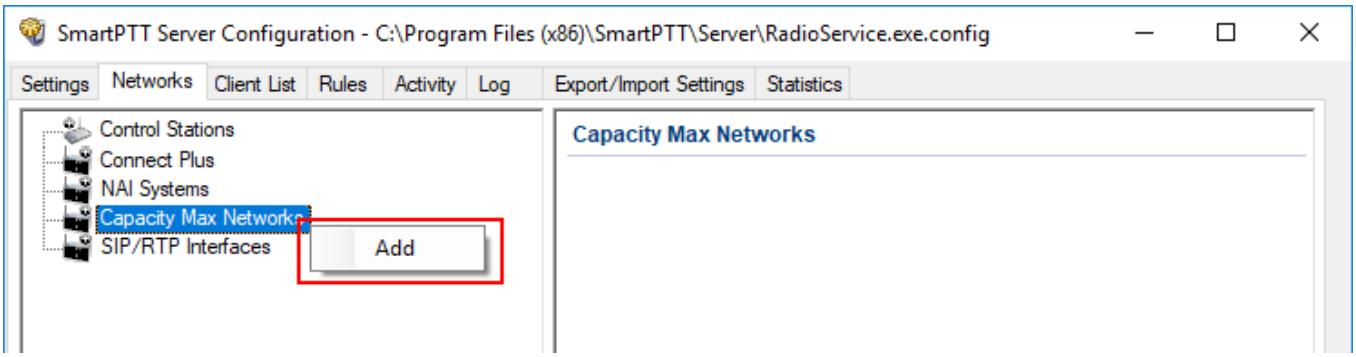
Capacity Max configuration in *SmartPTT Radioserver Configurator* includes the following steps:

- Adding a new network and performing its basic configuration
- Configuring a Trunking Controller
- Configuring MNIS Data Gateway settings for data transfer
- Configuring MNIS VRC Gateway settings and talkgroups
- Configuring security settings

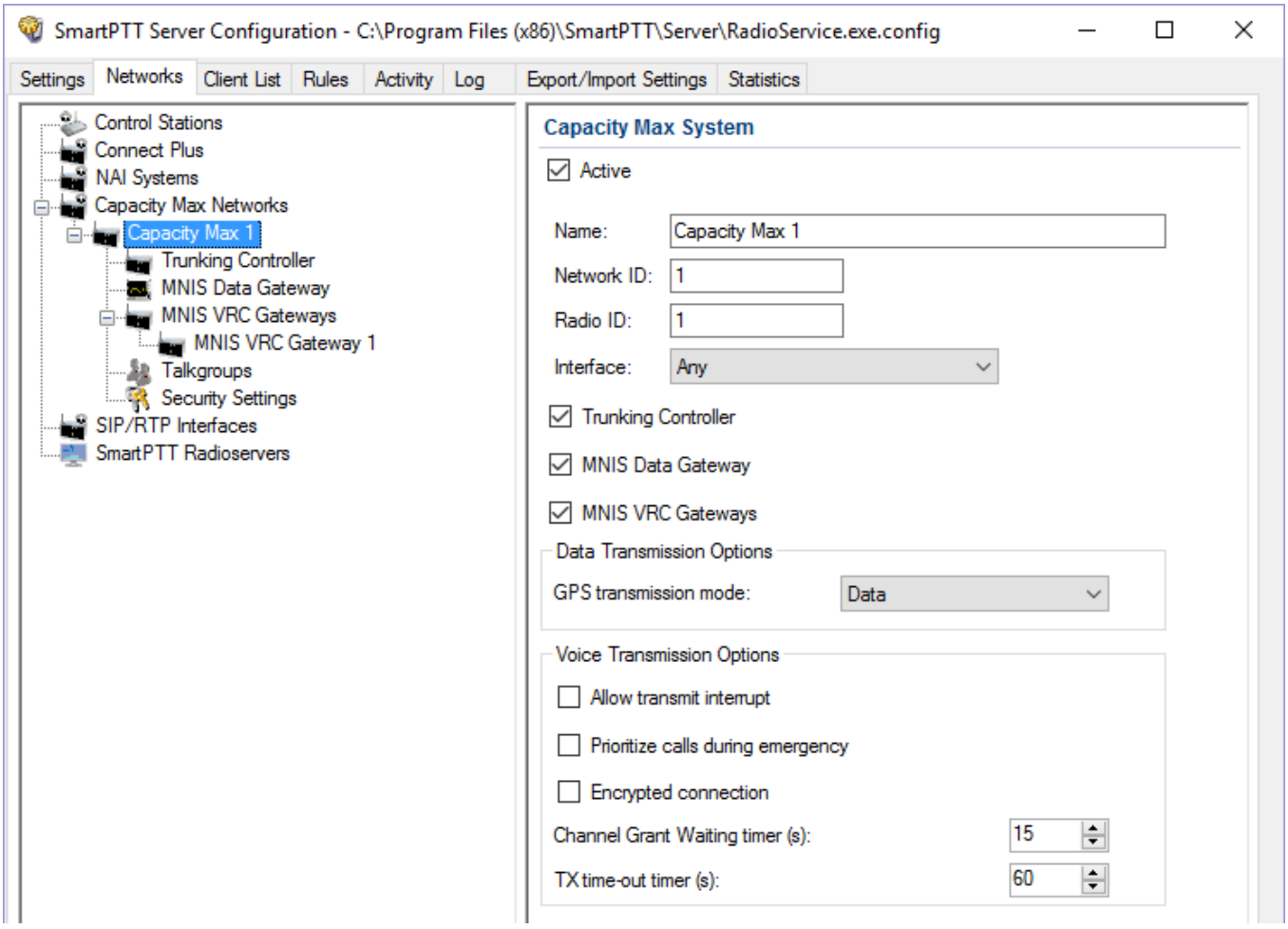
1.1 Configuring Capacity Max

To connect a new Capacity Max system to the SmartPTT Radioserver, follow these steps:

1. On the **Networks** tab, right-click **Capacity Max Networks** and then click **Add**.



2. Select the created Capacity Max system. The **Capacity Max System** pane appears:



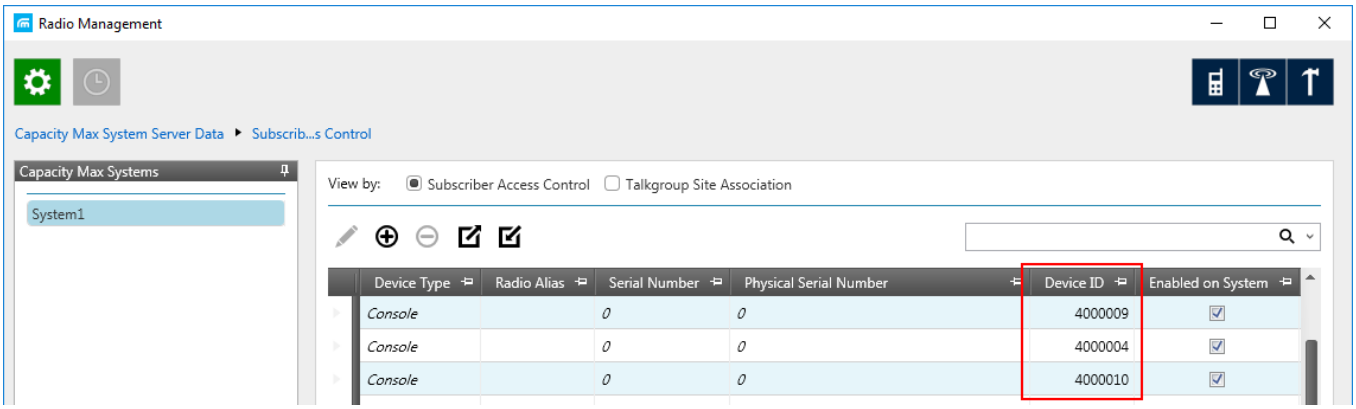
3. In the **Capacity Max System** pane, configure the available options:

Name: Name of the created system.

Network ID: Unique ID of the network. The network ID must not match any ID of other SmartPTT Radioserver networks

Radio ID: The identifier of the radioserver. This identifier is displayed on a radio when it receives private calls and text messages from the dispatcher. If there are several dispatchers, you can create a profile for each operator and define a unique identifier for each operator. **Radio ID** set in this window must correspond to the value set in the **Device ID** field for the preconfigured radioserver device in the *Radio Management* application (see the **Capacity Max Systems** settings, viewed by the **Subscriber Access Control** value).

To open the **Capacity Max System** settings in the *Radio Management* application, click **Action** → **Manage** → **Capacity Max System Server Data** or press Ctrl+Alt+S.



Interface: The IP address of the computer where SmartPTT Radioserver is installed.

Trunking Controller: Select to allow the connection to Trunking Controllers.

MNIS Data Gateway: Select to allow a connection to a MNIS Data Gateway and its use.

MNIS VRC Gateways: Select to allow a connection to a MNIS VRC Gateway and its use.

Allow transmit interrupt: Select if you want to interrupt a radio.

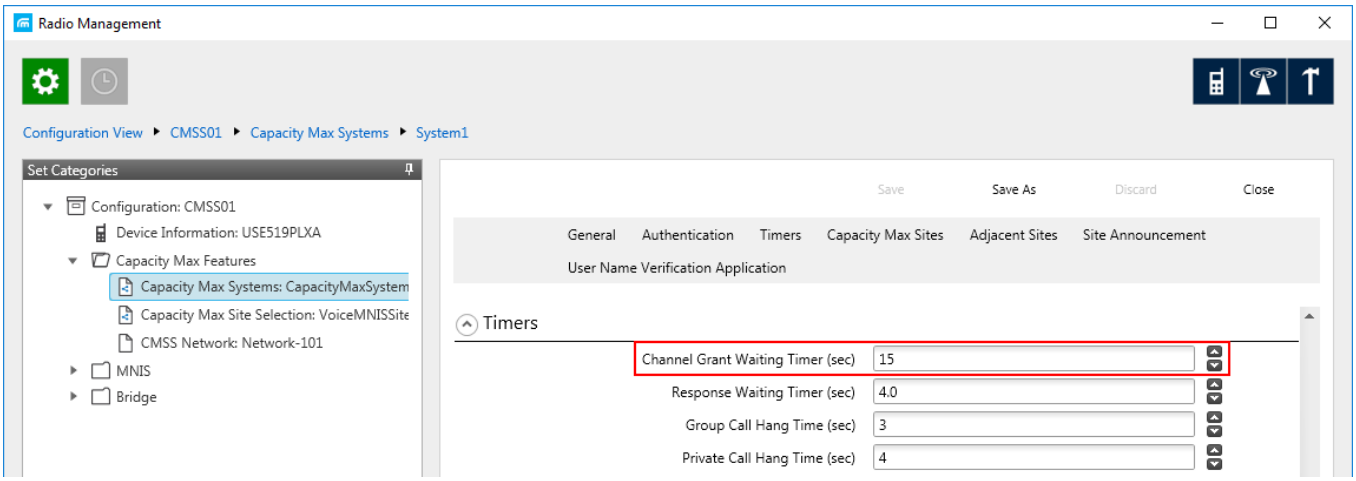
Prioritize calls during emergency: Sets a priority of the dispatcher call during the Emergency Call. If the check box is selected, the dispatcher call has the highest priority during the Emergency Call in relation to other calls and interrupts them in case of lack of resources.

Encrypted connection: Select to activate encrypted TLS connection between radioserver and voice gateway.

Channel Grant Waiting timer (s): Time period in seconds during which the caller expects a response from the called party (the FOACSU strategy). It is recommended to use the default value of 15 seconds that is set in *Radio Management* (see the **Capacity Max Systems:...** settings in the Capacity Max Features menu of the CMSS configuration, the **Channel Grant Waiting timer** field in the **Timers** tab).

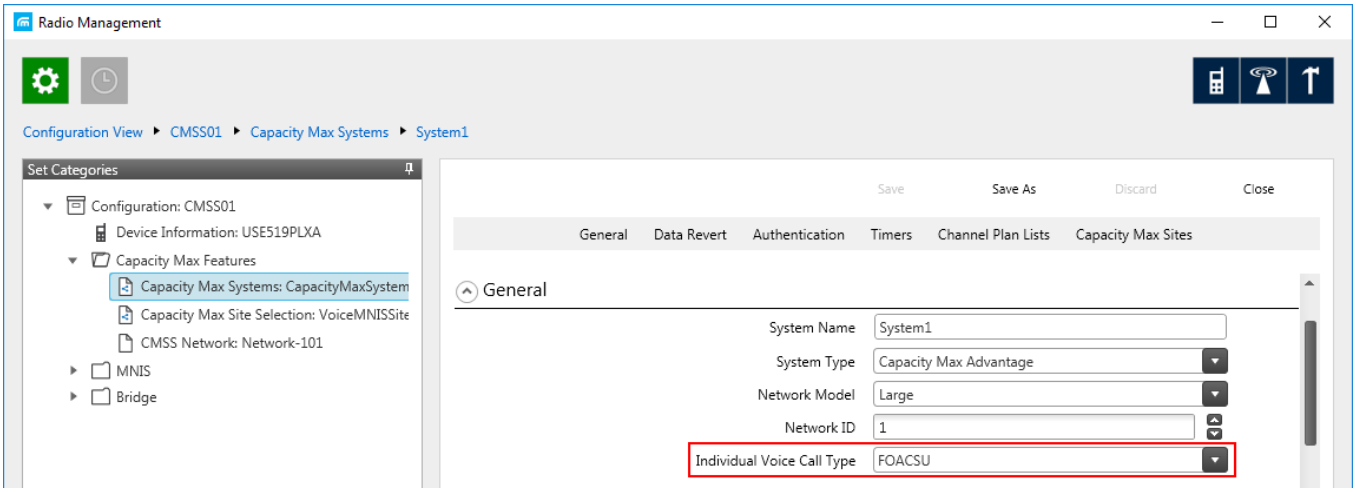
NOTE

To open the **Capacity Max Features** of the of the CMSS configuration in the *Radio Management* application, click **Action** → **Manage** → **Configurations** or press Alt+C. In the open table, select the CMSS configuration and click **Edit**. In the open **Set Categories** pane, expand **Configuration:<CMSS configuration name>** and select **Capacity Max Features**.



FOACSU (Full Off Air Call Set Up) stands for the strategy of assigning the traffic channel only when the called party user answered the call specifically. During the timeout the traffic channel is not allocated for the call.

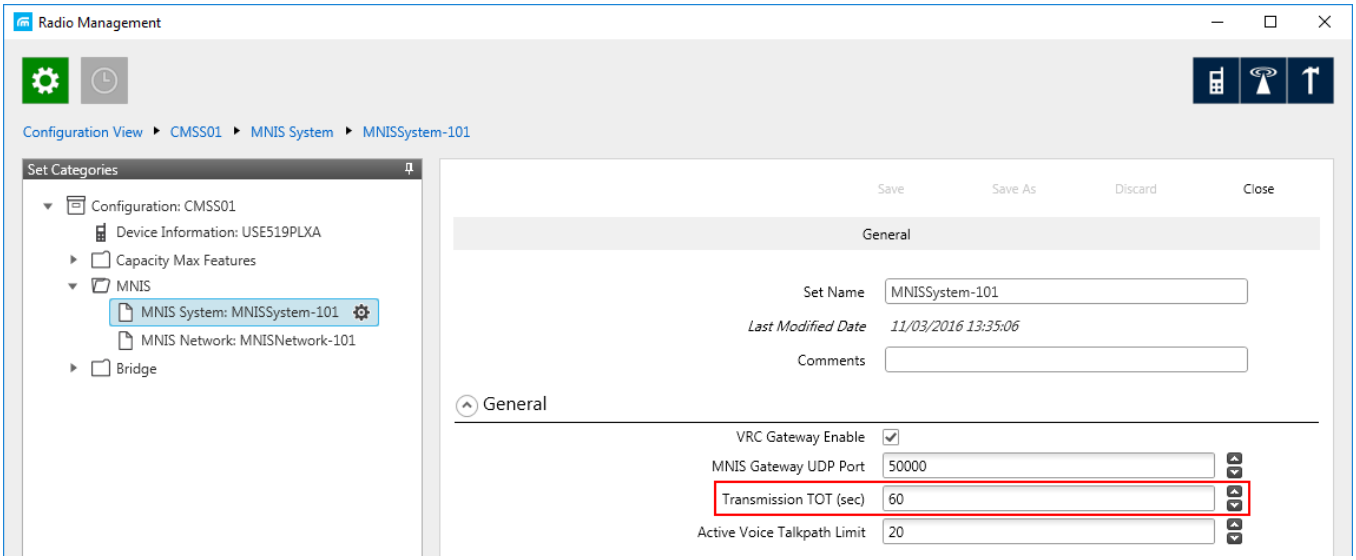
For the correct work of the FOACSU private calls, ensure it is configured in *Radio Management* (see the **Capacity Max Systems:...** settings in the **Capacity Max Features** menu of the CMSS configuration, the **Individual Voice Call Type** field in the **General** tab).



TX time-out timer (s): Time period during which the radio can transmit without interruptions. After this time is over, the transmission is interrupted. We recommend you to use the default value of *60* seconds, which is set in *Radio Management* (see the **MNIS System** settings in the **MNIS** menu of the CMSS configuration, the **Transmission TOT** field in the **General** tab).

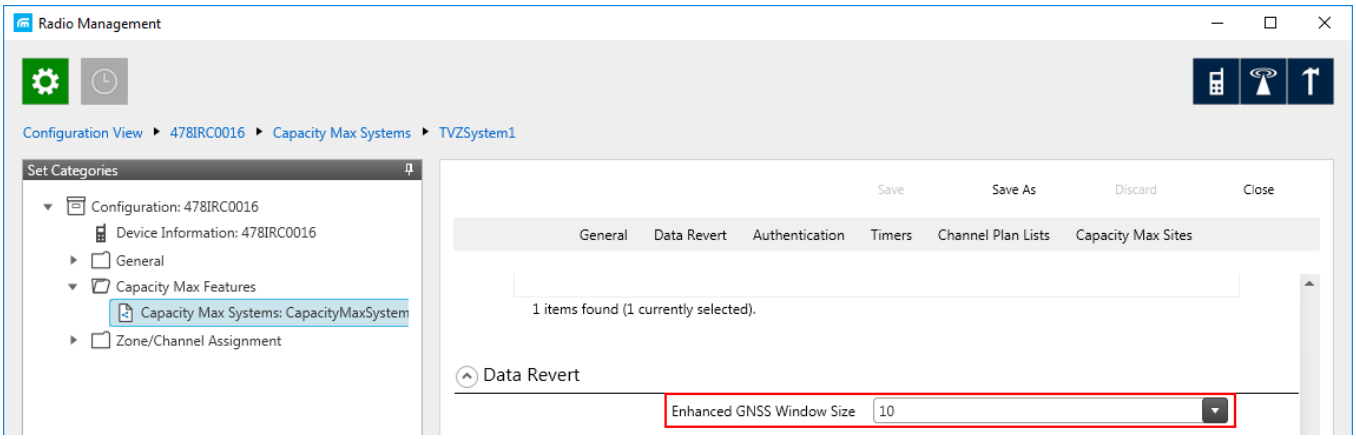
NOTE

To open the **MNIS** menu of the **CMSS configuration** in the *Radio Management* application, click **Action** → **Manage** → **Configurations** or press Alt+C. In the open table, select the CMSS configuration and click **Edit**. In the open **Set Categories** pane, expand **Configuration: <CMSS configuration name>** and select **MNIS** → **MNIS System**.



GPS Transmission Mode: Select the suitable mode:

- **Data:** GPS coordinates will be received in several packets. This mode is working only if **Trunking channel** is set in *Radio Management*. However, traffic is consumed in this mode.



- **Enhanced CSBK:** GPS coordinates will be sent as a single Control Signaling Block. This is traffic-effective option and it allows to increase GPS request rate up to 7.5 s. However, you should make sure that radio units in your system support CSBK commands.

1.2 Configuring Trunk Controller

Trunking controller of the Capacity Max network provides actual information about the network status (registered radios).

NOTE

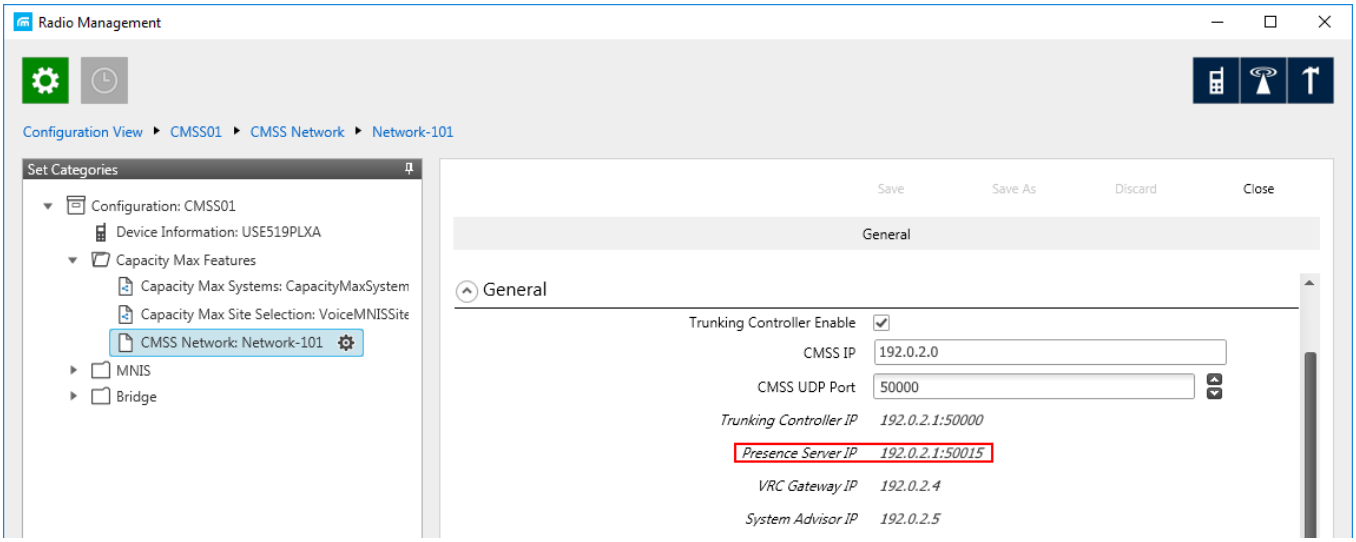
To configure trunk controller, install the corresponding license. For more information on how to install licenses, see Licenses.

To configure a primary trunking controller, follow these steps:

1. Ensure trunking controller is configured by using the *Radio Management* application, in particular, you can obtain IP address and port from the **Presence Server IP** field.

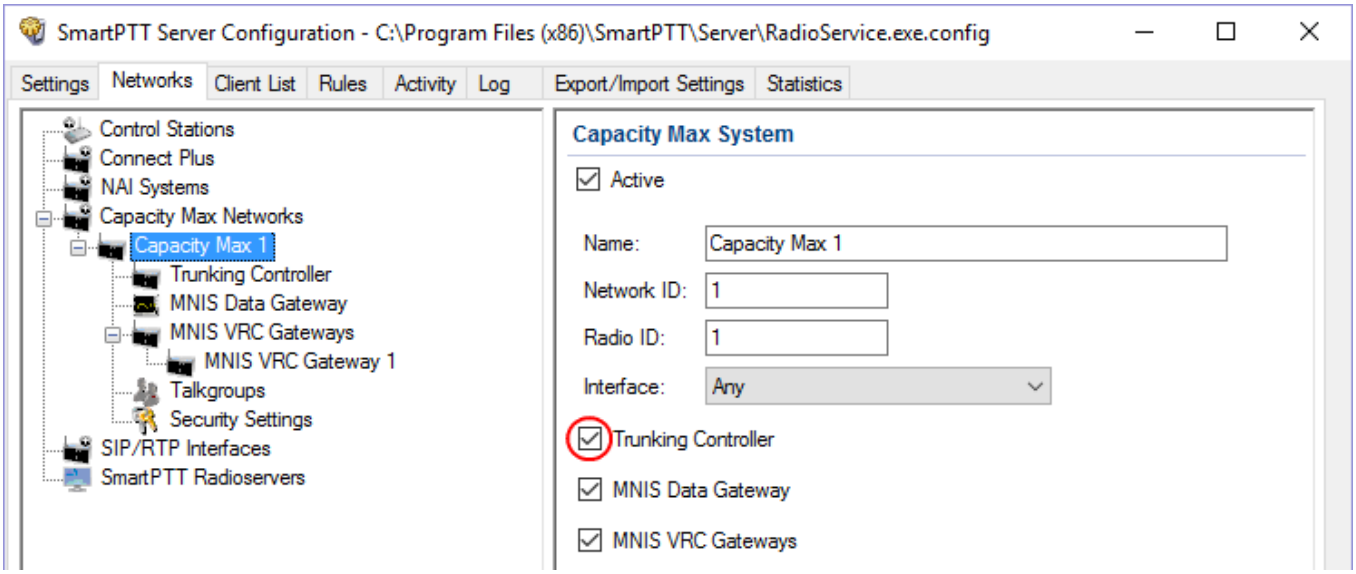
NOTE

For more information on how to configure Radio Management application, see *Motorola Radio Management User Guide*.

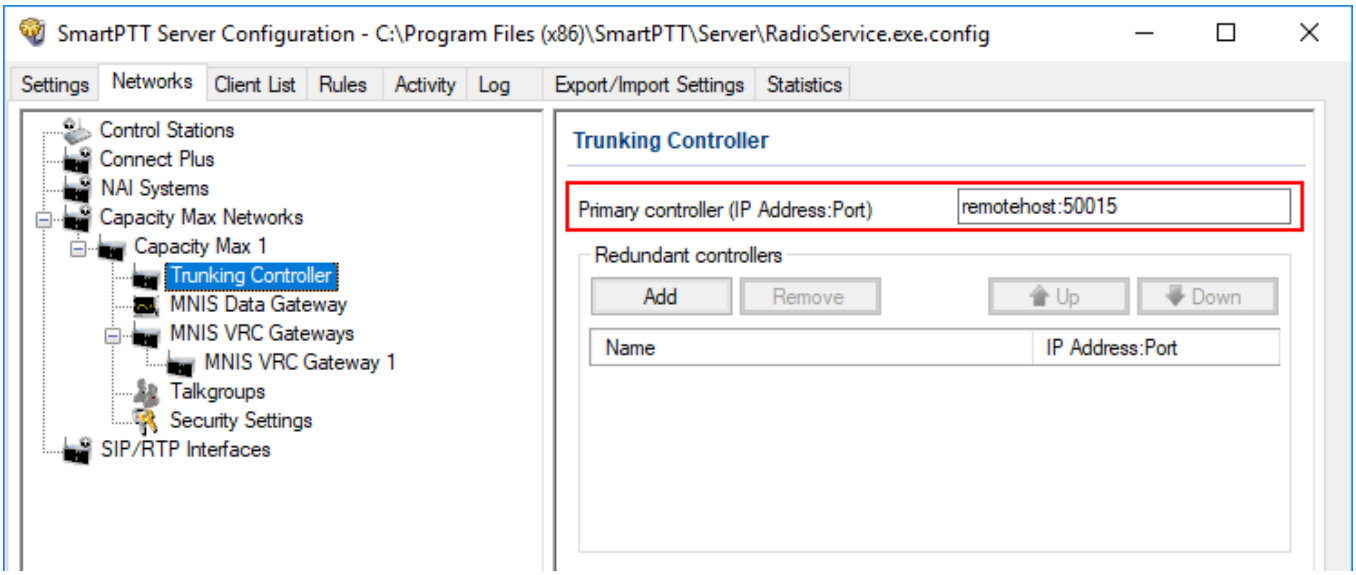


2. Add a new Capacity Max network or select the existing one.

3. In the **Capacity Max System** pane, select the **Trunking Controller** check box to make trunking controller settings available.



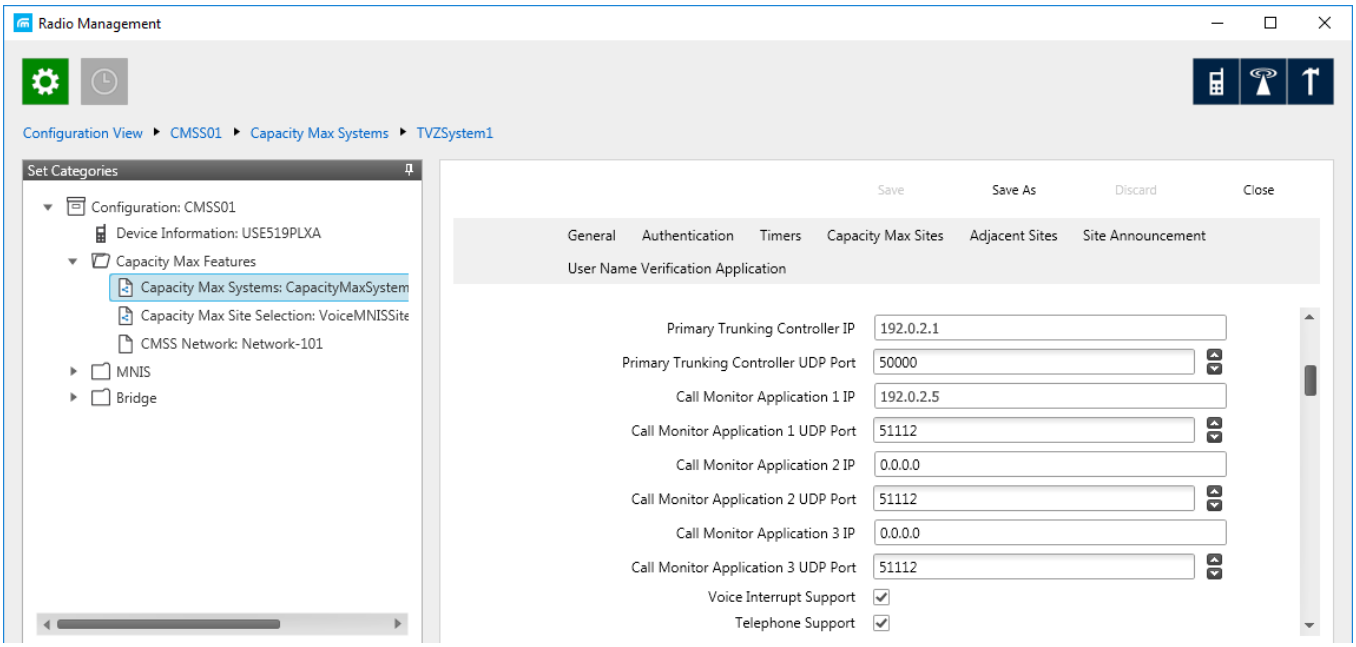
4. In the left pane, select **Trunking Controller** and in the **Trunking Controller** pane replace the default text "*remotehost:50015*" in the **Primary controller (IP address:Port)** field with IP address and port of the Presence Server from the *Radio Management* application.



Capacity Max supports up to 4 redundant trunking controllers to keep the radios online when the primary controller goes offline. The order of redundancy is defined by the settings in the *Radio Management* application.

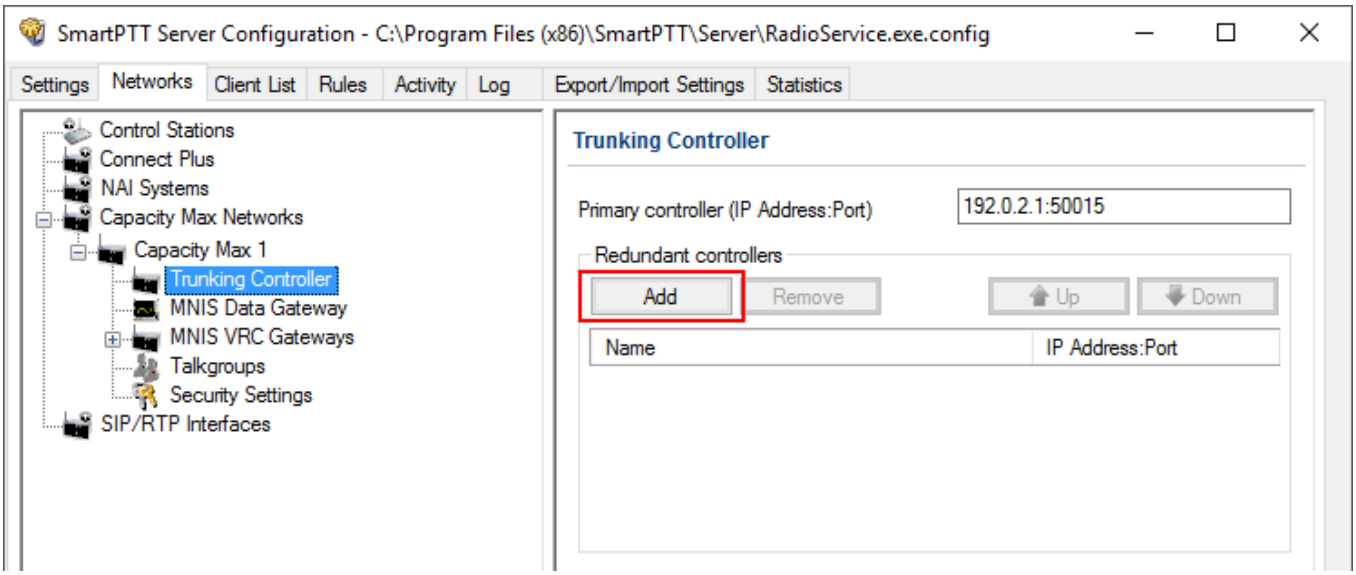
To configure additional trunking controllers:

1. Make sure that redundant trunking controllers are configured in the *Radio Management* application.

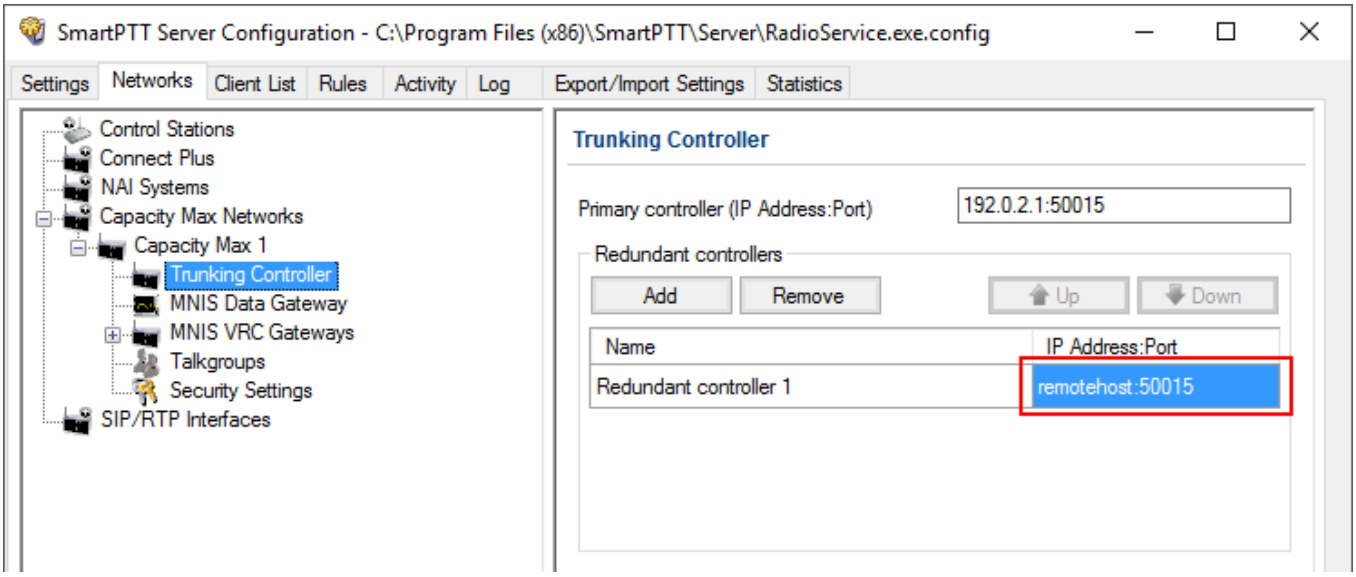


2. In your Capacity Max network select **Trunking controller.**

3. In the **Redundant controllers** area, click **Add** to add a new controller to the table.



4. Change the redundant controller IP address and port according to the settings in the *Radio Management* application. Rename the controller if needed. You should name controllers differently.



5. Add more redundant controllers if needed. Change their IP addresses and ports according to the settings in the *Radio Management* application.

NOTE

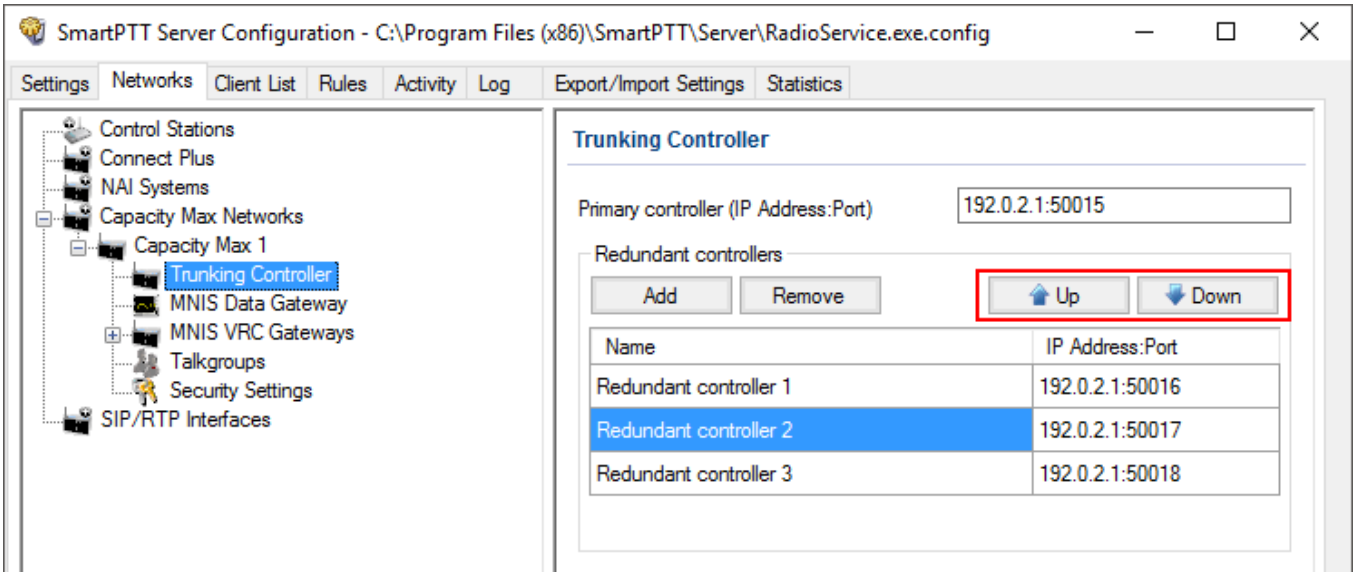
If ports of some controllers are the same, the exclamation mark appears near them. You cannot switch to another menu until you change the ports.

You can change the order of the redundant controllers in the table. This helps to assign a new active controller in case when others disconnect from each other.

To change the order of the controllers in the table, follow these steps:

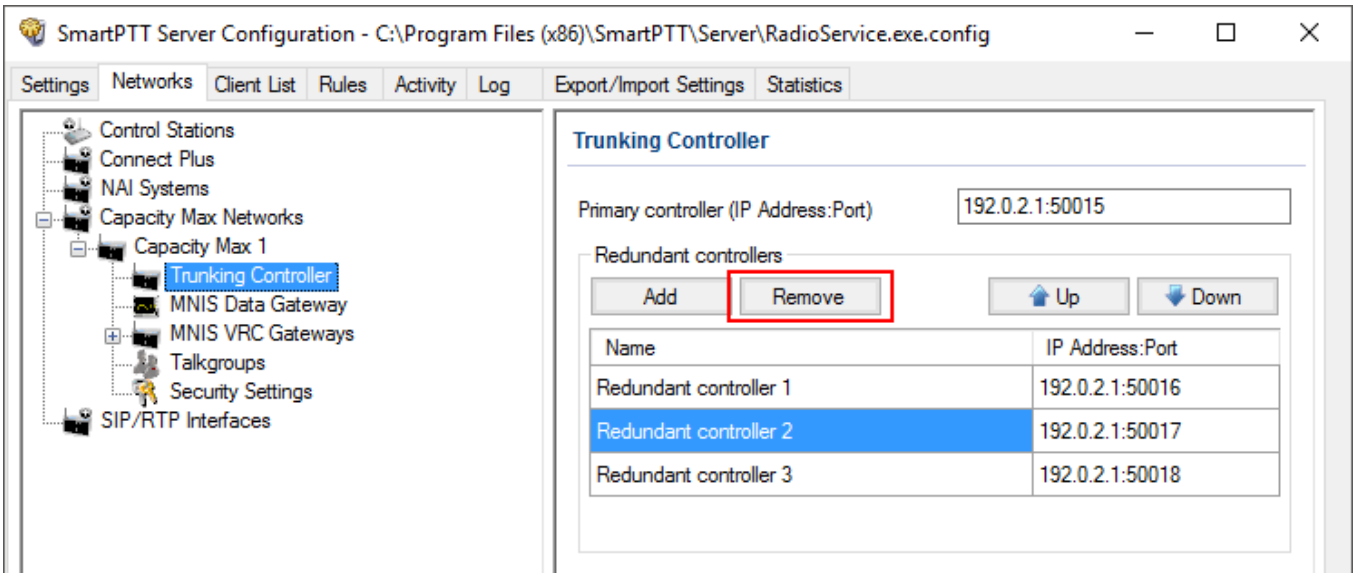
1. Select the desired redundant controller.

2. Click **Up** or **Down** to move the redundant controller up and down.



To delete a redundant trunking controller from the table, follow these steps:

1. In your Capacity Max network select **Trunking Controller**.
2. In the **Redundant Controller** area, in the table select a redundant controller and click **Remove**.



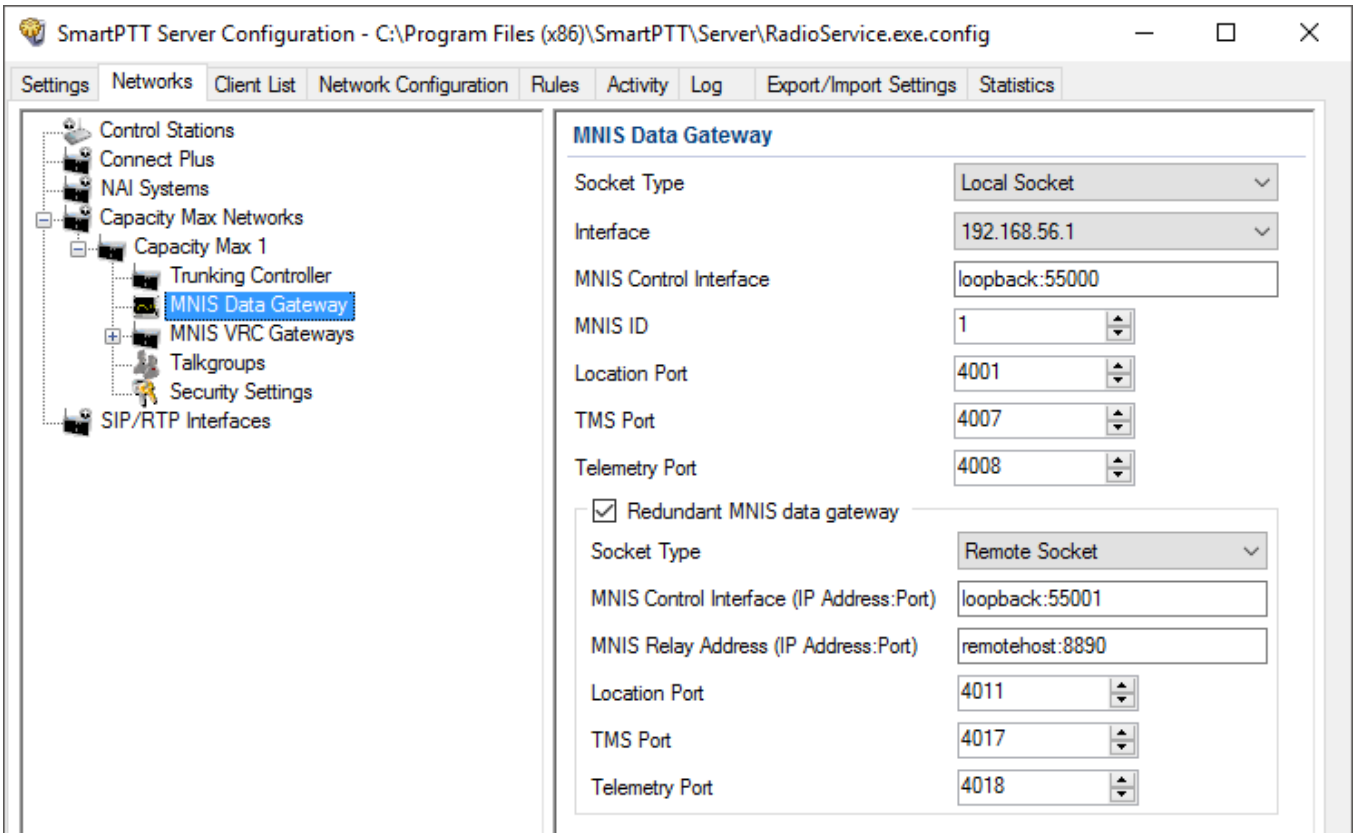
1.3 Configuring MNIS Data Gateway

To configure data transfer over Capacity Max network, configure MNIS Data Gateway settings in *SmartPTT Radioserver Configurator* and in *MOTOTRBO Network Interface Service Configuration Utility*.

NOTE

To configure data transfer, install the corresponding license. For more information on how to install licenses, see Licenses.

To configure MNIS Data Gateway settings in SmartPTT Radioserver, click **Capacity Max Networks** → **Capacity Max** → **MNIS Data Gateway**.



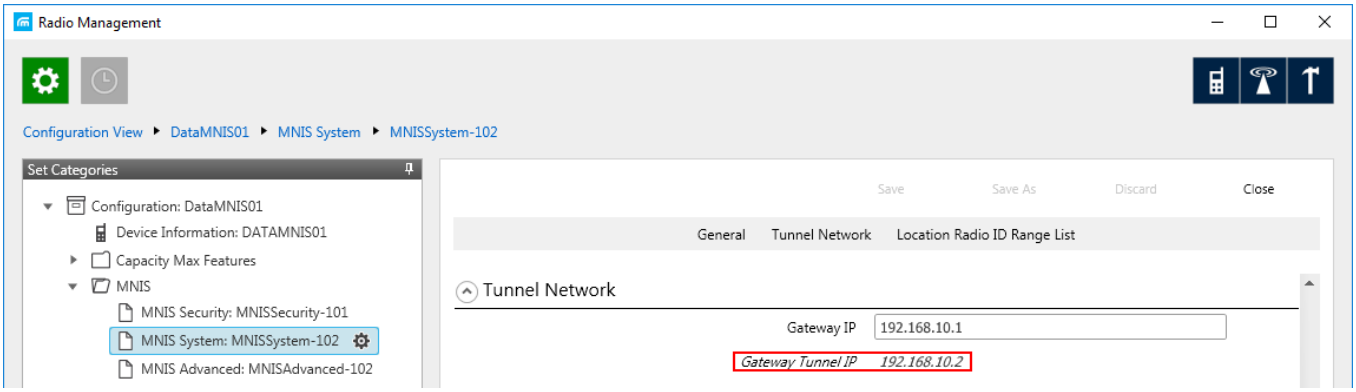
NOTE

The **Data transmission** check box in the **Capacity Max** window should be selected. Otherwise, the **MNIS Data Gateway** parameter will not be shown.

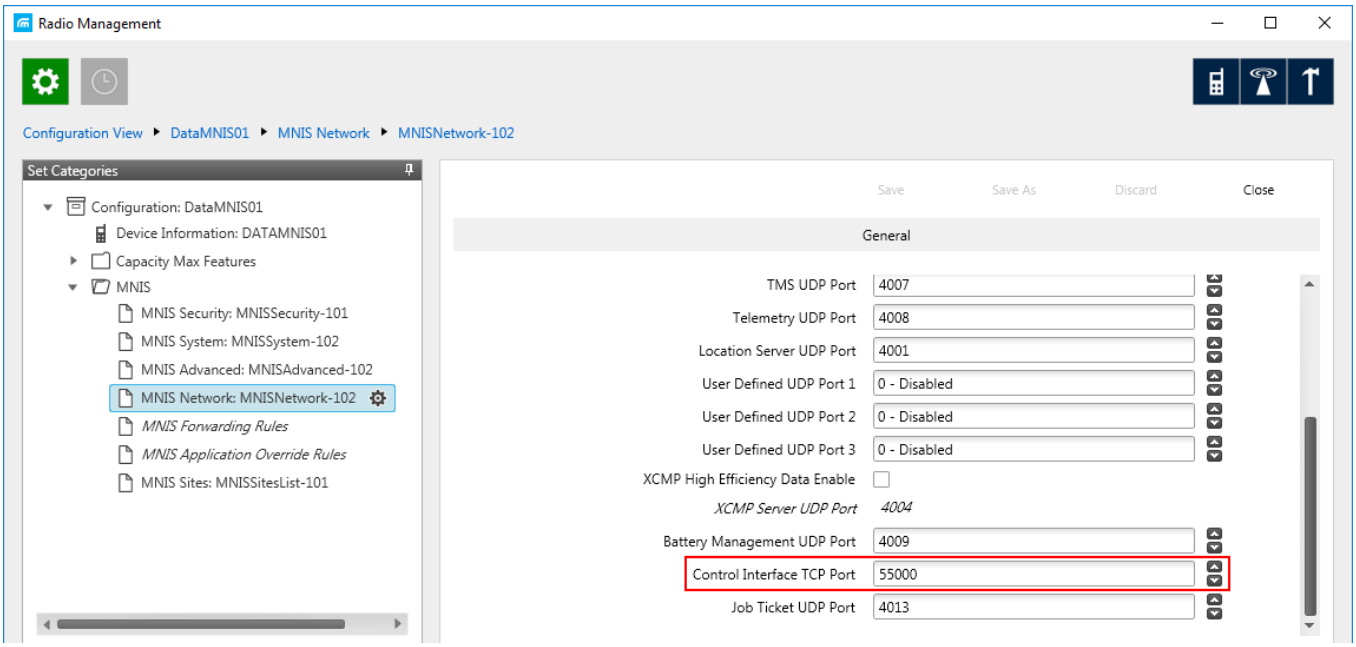
Socket Type: Defines the software interface type to enable communication between processes. Select the *Local Socket* value if the *MOTOTRBO Network Interface Service Configuration Utility* is installed on the same computer as SmartPTT Radioserver. Select *Remote Socket* if the *MOTOTRBO*

Network Interface Service Configuration Utility and SmartPTT Radioserver are installed on different computers. In this case, information exchange between the processes is supported by the MNIS Relay application.

Interface: MNIS interface. It must match the interface specified in the *Radio Management* application (see the **MNIS System** settings in the MNIS menu of the **DataMNIS_Config** configuration, the **Gateway Tunnel IP** field in the **Tunnel Network** tab).



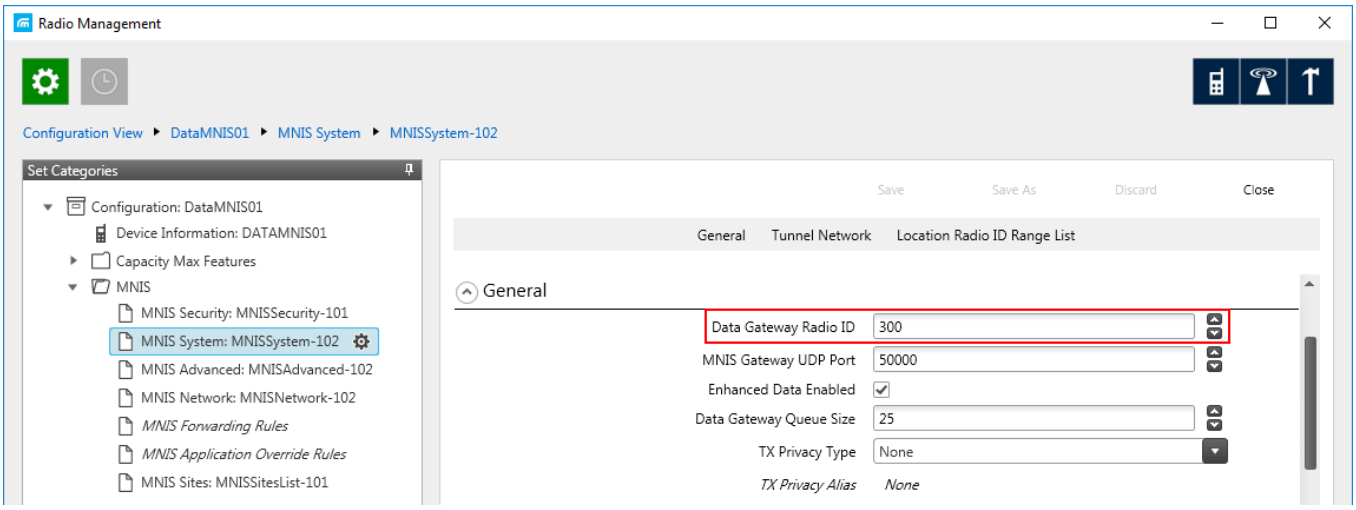
MNIS Control Interface: Use *localhost*, if *MOTOTRBO Network Interface Service Configuration Utility* is installed on the same computer as the radioserver. If *MOTOTRBO Network Interface Service Configuration Utility* and the radioserver are installed on different computers, enter the IP address of the computer where *MOTOTRBO Network Interface Service Configuration Utility* is installed. The port should match the port number specified in the *Radio Management* application (see the **MNIS Network** settings in the **MNIS** menu of the **DataMNIS_Config** configuration, the **Control Interface TCP Port** field in the **General** tab).



NOTE

To open the **MNIS** menu of the DataMNIS configuration in the *Radio Management* application, click **Action** → **Manage** → **Configurations** or press Alt+C. In the open table, select the DataMNIS and click **Edit**. In the **Set Categories** pane that opened, click **Configuration: <DataMNIS name>** → **MNIS**.

MNIS ID: The Common Air Interface (CAI) ID of the MNIS in the radio network. The ID is used by other calling radios when addressing *MOTOTRBO Network Interface Service Configuration Utility*. Verify **MNIS ID** matches the corresponding field in the *Radio Management* application (see the **MNIS System** settings in the **MNIS** menu of the DataMNIS configuration, the **Data Gateway Radio ID** field in the **General** tab).

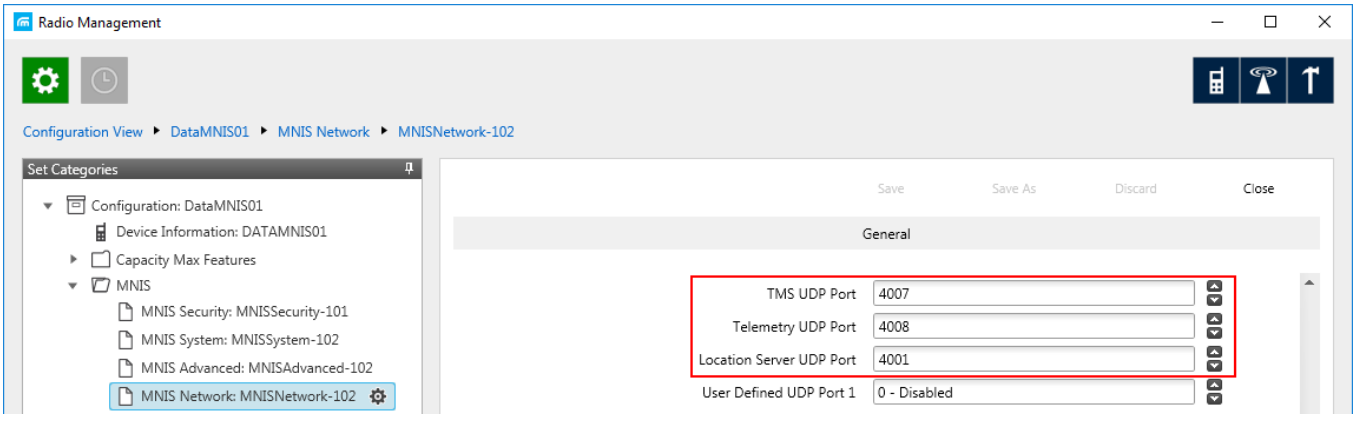


Location Port: The port where the radioserver will expect GPS data.

TMS Port: The port where the radioserver will expect text messages.

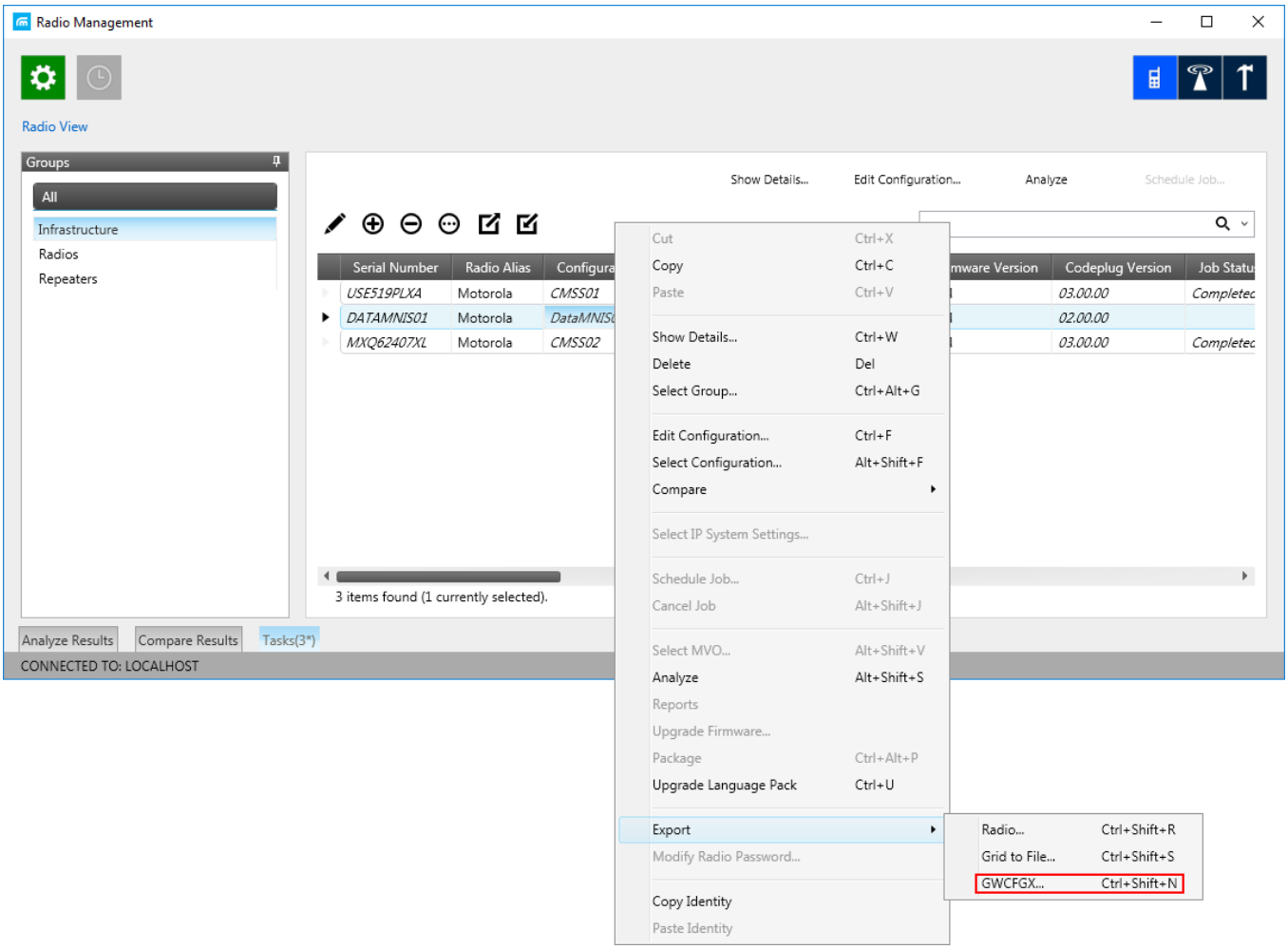
Telemetry Port: The port where the radioserver will expect telemetry data.

The ports should match the ports set in the corresponding fields in the *Radio Management* application (see the **MNIS Network** settings in the **MNIS** menu of the DataMNIS configuration, the **Location Server UDP Port** field, the **TMS UDP Port** field, the **Telemetry UDP Port** field in the **General** tab).



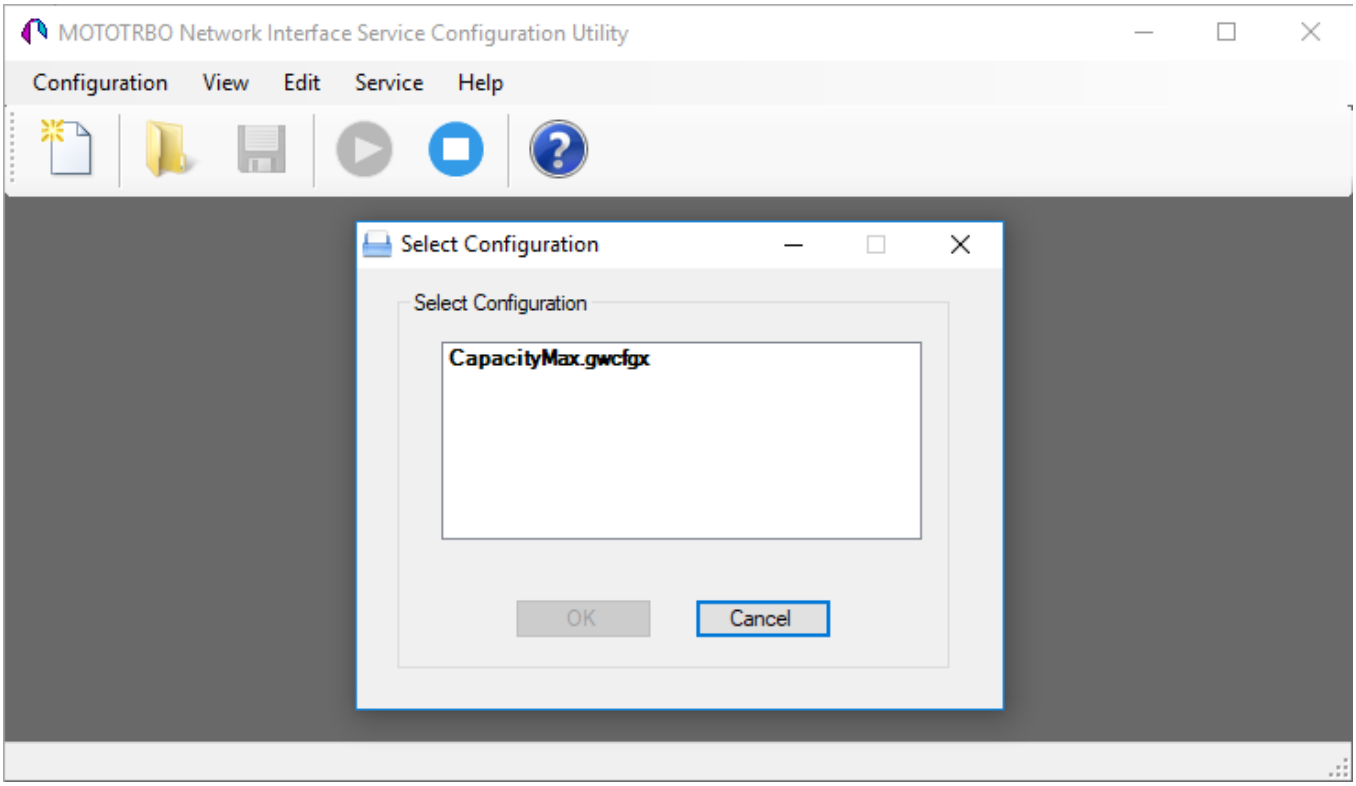
To set up MNIS Data Gateway settings in the *MOTOTRBO Network Interface Service Configuration Utility*, follow these steps:

1. Save MNIS Data Gateway settings from the *Radio Management* application as GWCFGX file. For that, click **Radios**, right click the **DATA MNIS...** item in the table that opened and click **Export** → **GWCFGX...** or press Ctrl+Shift+N. In the open **Export GWCFGX** window, select the file and click **OK**.



2. Transfer the saved GWCFGX file to your computer where the *MOTOTRBO Network Interface Service Configuration Utility* is installed, to the **Config** folder that is located on the local disk *C:/ProgramData/Motorola/Wireline Gateway*.

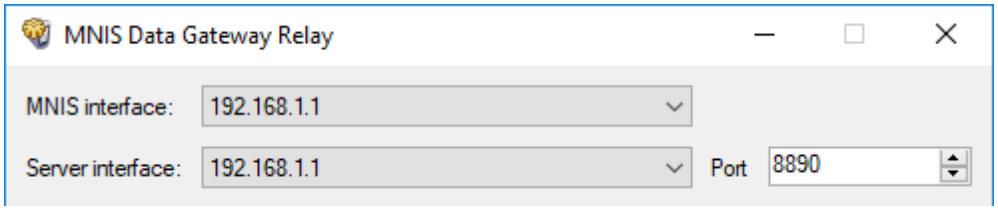
3. Launch the *MOTOTRBO Network Interface Service Configuration Utility* and click **Configuration** → **Select Active Configuration**. In the **Select Configuration** window that opened, select the GWCFGX file saved before and click **OK**.



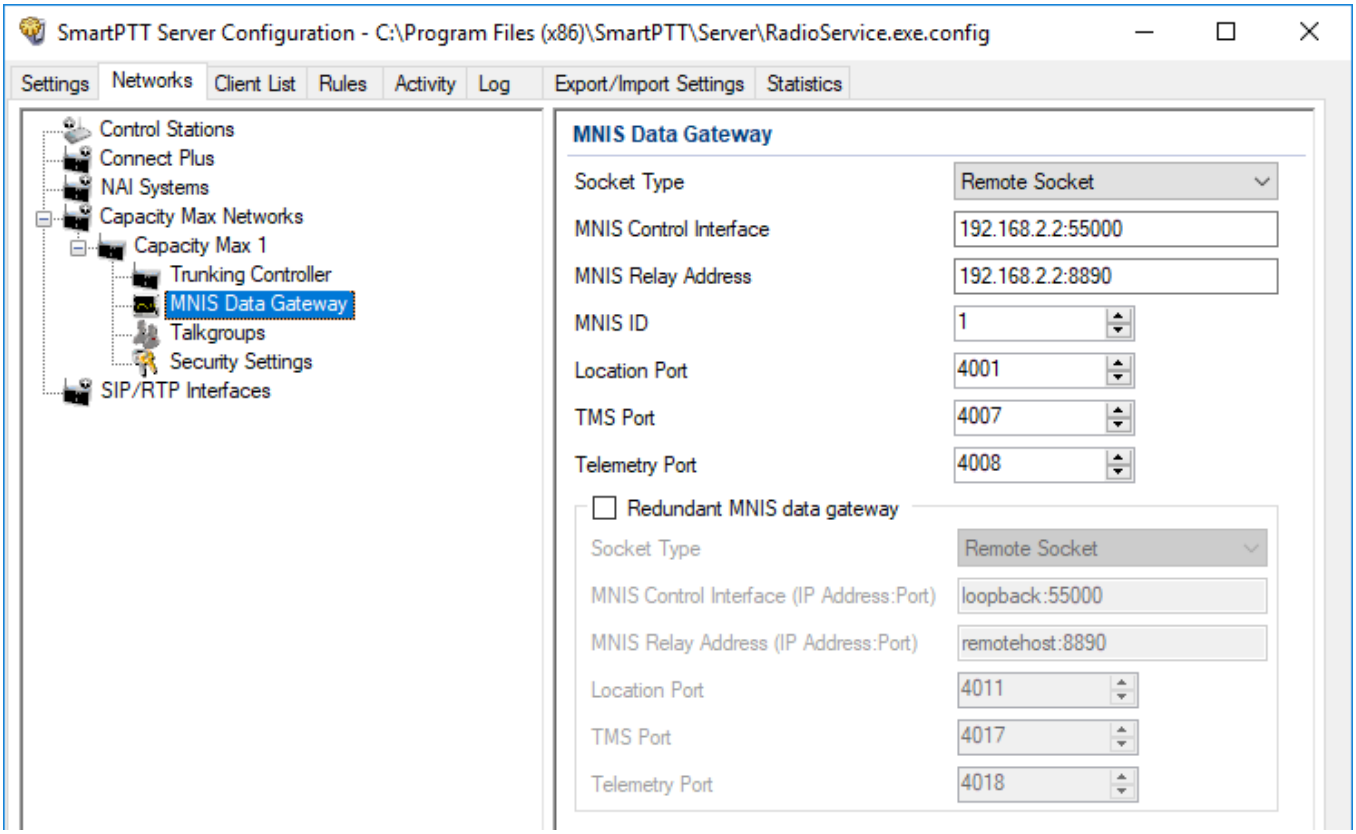
If *MOTOTRBO Network Interface Service Configuration Utility* and the SmartPTT Radioserver are running on different computers, or you configure several MNIS Data Gateways, follow these steps:

1. Install and run MNIS Data Gateway Relay on the computer where *MOTOTRBO Network Interface Service Configuration Utility* is running.

2. Run the MNIS Data Gateway Relay Configurator.



3. In the **MNIS interface** field enter the same address as it is in the **Tunnel IP Address** of MNIS.
4. In the **Server interface** field enter the same address as you did in the previous step.
5. In the **Port** type the available port of the computer.
6. Save changes and restart MNIS Data Gateway Relay.
7. In SmartPTT Radioserver Configurator double-click your network and click **MNIS Data Gateway**.



8. In the **Socket Type** field select *Remote Socket*.
9. In the **MNIS Control Interface** field, enter the IP address of the computer where MNIS service is running and the port from the **MNIS Control Interface TCP Port** field of the *MOTOTRBO Network Interface Service Configuration Utility*.

10. In the **MNIS Relay Address** field, enter the IP address of the computer where *MNIS Data Gateway Relay* service is running and the port from the **Port** field of *MNIS Data Gateway Relay*.
11. Configure other settings as describer previously.
12. Click **Save** to save changes.
13. Click **Restart** to restart *SmartPTT Radioserver* and apply changes.

1.4 Configuring MNIS VRC Gateway

Every Capacity Max network supports up to 15 MNIS VRC gateways. The first gateway is created always exists in the network, so you can add 14 gateways more.

NOTE
To configure MNIS VRC gateway, install the corresponding license. For more information on how to install licenses, see Licenses.

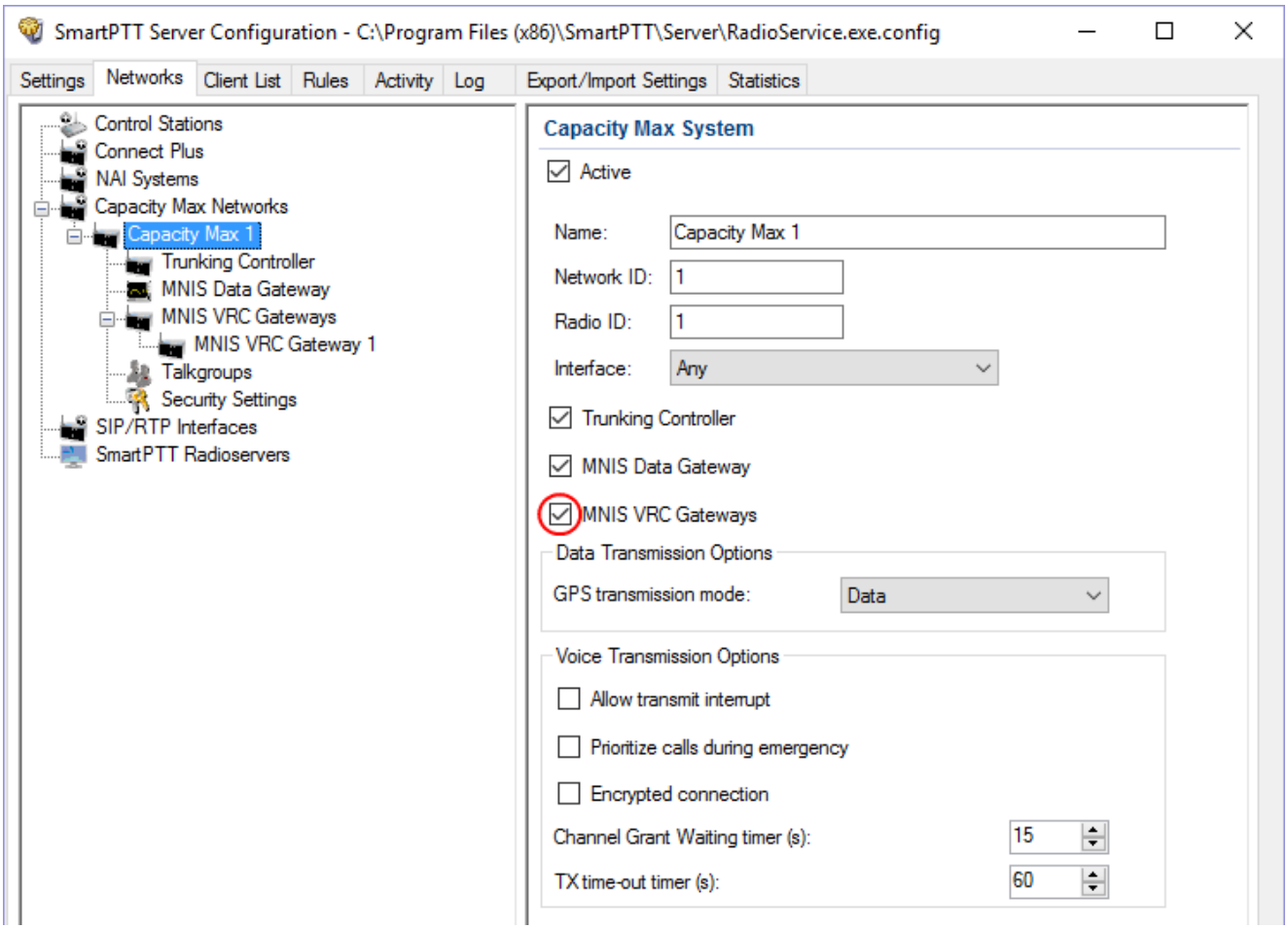
The order of the gateways matters a lot. All newly created profiles and talkgroups for your Capacity Max network will be assigned for the first MNIS VRC Gateway in the list. Therefore, you should be careful when configure several MNIS VRC Gateways.

To configure MNIS VRC gateway, follow these steps:

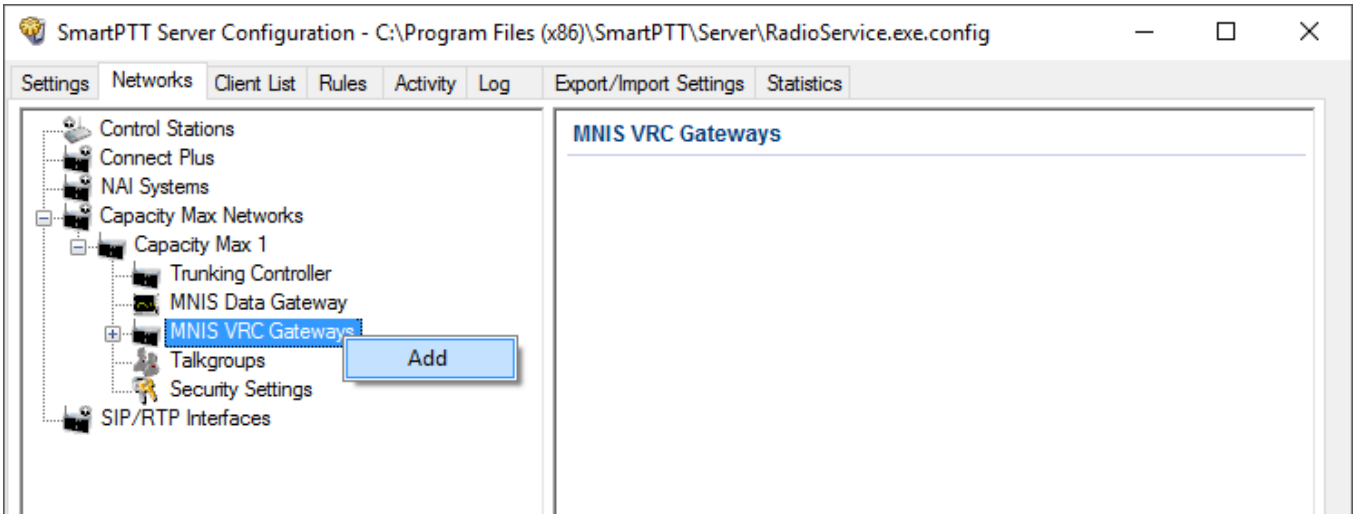
1. Make sure that VRC Gateway is configured in the *Radio Management*.

NOTE
For more information on how to configure Radio Management application, see *Motorola Radio Management User Guide*.

2. In your Capacity Max network select **MNIS VRC Gateways** to show and allow to configure MNIS VRC Gateways.



3. To add a new MNIS VRC Gateway right-click **MNIS VRC Gateway** and click **Add**.

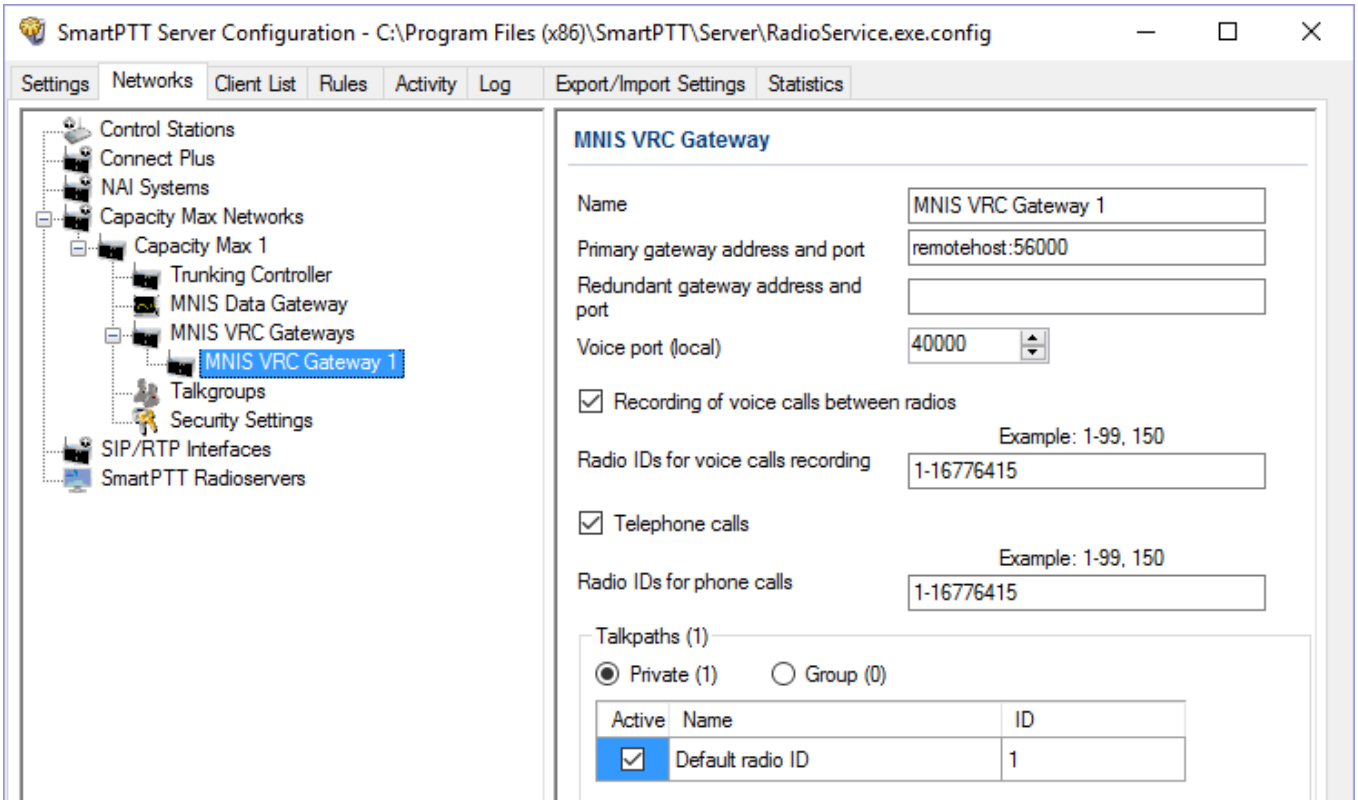


4. Select the newly created or existing gateway.

NOTE

By default, all new gateways obtain equal IP addresses and ports. When you select one of those, you will not be able to leave the menu until you make its IP address and port unique within the site.

5. Configure the gateway options.



Name: The name of the gateway in SmartPTT Radioserver Configurator. Rename your gateway if needed.

Primary gateway address and port: IP address from **VRC Gateway IP** and port from **Server TCP port** which were configured in your CMSS Network in *Radio Management*.

Redundant gateway address and port: IP address of **VRC Gateway IP** and port from **Server TPC port** of the additional CMS server you assign to be redundant. You can leave this field empty if you do not have redundant VRC gateway.

Voice port (local): The port at which SmartPTT Radioserver will expect the voice data.

Recording of voice calls between radios: Select this to activate voice recording feature, that allows the dispatcher to hear private calls made from radios to other radios, dispatchers or telephone subscribers.

Radio IDs for voice call recording: Enter radio IDs for which the recording should be active. Follow the example, to specify the IDs.

Phone calls: Select this if you want to allow telephone calls for this gateway.

Radio IDs for phone calls: Enter radio IDs for which phone calls should be available. Follow the examples, to specify the IDs.

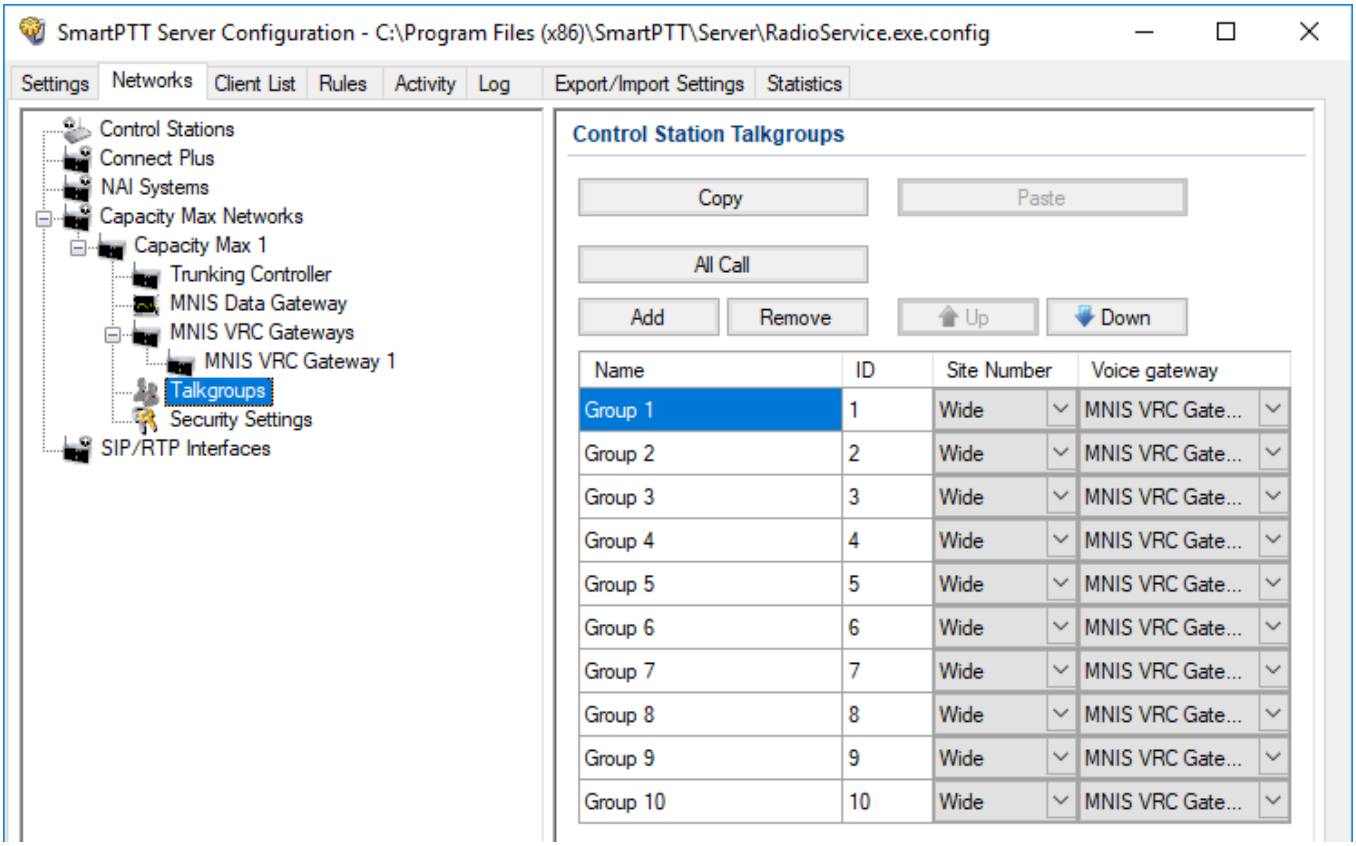
Talk paths: You can reorganize the default gateway for radios and profiles here.

Private: Click this to view the radio profiles which assigned to the current gateway. Profiles can be assigned to the gateway (**Active** is selected), not assigned (**Active** is clear) and unavailable on it (**Active** is clear, profile name is discolored). If the profile is unavailable, it means that it is selected on the other gateway. By default all new profiles will be selected on the first gateway in the list and their ID will be the same as that of the first gateway in the list.

Group: Select this to view talkgroups created for the current site. For more information see Capacity Max Talkgroups.

1.5 Configuring Talkgroups

To configure Capacity Max talkgroups, click **Talkgroups**. The **Control Station Talkgroups** window appears:



To add a talkgroup, click **Add**. To add an All Call, click **All Call**. The added talkgroups will also appear in the **Profiles** window. To change the order of groups in the list, use the **Up** and **Down** arrows. The order defined in the window will be used in *SmartPTT Dispatcher*. To copy added groups to the clipboard, click **Copy**. To paste copied groups from the clipboard, click **Paste**. To delete the selected talkgroup, click **Remove**.

Name: Talkgroup alias displayed by the control station.

ID: Talkgroup unique identifier used during communications. To be set in the range from 1 to 65535 for a talkgroup, and in the ranges from 1 to 16776415, from 16777056 to 16777183 or be equal to *16777214* for an All Call.

To edit the talkgroup name or ID, set the cursor on the corresponding field and make changes.

Site Number: Site number list allowed for transmitting. In the Capacity Max network the talkgroups can be only wide-area, while All Call can be wide-area or local.

NOTE

In the Capacity Max network you can add only wide-area talkgroups, so only the *Wide* value is available for groups in the **Site Number** field. In order to display wide area talkgroups in *SmartPTT Dispatcher*, add necessary talkgroups in *SmartPTT Radioserver Configurator*, define talkgroup identifiers that correspond to the identifiers of the wide-area talkgroups in the *Radio Management* settings. You can add a wide-area All Call and a local All Call, which is limited to one site. To add a wide-area All Call, which is available to all sites, click **All Call**. Verify that **Site Number** is set to *Wide*. To add an All Call limited to one site, click **All Call**, and in the **Site Number** field select the site number where the All Call will be heard. Please note, that you do not need any IDs for All Calls.

Voice gateway: List of available voice gateways. You can assign a certain voice gateway for each talkgroup.

NOTE

If there are some available voice gateways, all talkgroups use by default the first voice gateway in the list. If the talkgroup is not registered on any voice gateway, the **Voice gateway** field will be empty. If Voice transmission is not selected in the Capacity Max network settings, the **Voice gateway** column will be hidden.

You should create talkgroups in accordance with the settings in the Radio Management application (see the **Capacity Max Systems** settings, sorted by the **Talkgroup Site Association** value). For more information, see *Motorola Radio Management User Guide*.

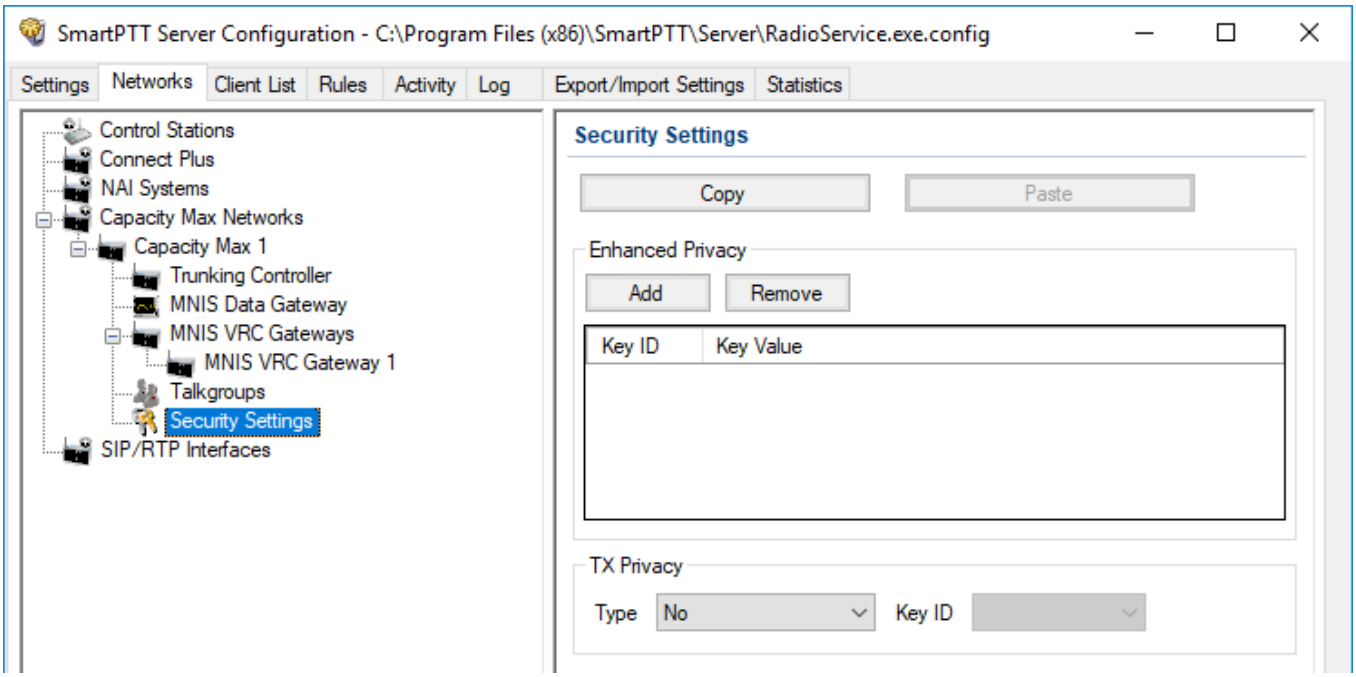
1.6 Security Settings

Capacity Max network supports two types of privacy mechanisms – Enhanced and Advanced Encryption Standard (AES).

The Enhanced Privacy utilizes Motorola proprietary algorithms and therefore is not interoperable with other vendor's privacy offerings. The Enhanced Privacy provides high level of protection by means of 40-bit key length and supports multiple keys in a radio.

The Advanced Encryption Standard (AES) is a specification for the encryption of electronic data established by the U.S. National Institute of Standards and Technology (NIST). The AES feature supports 256-bit key length, unlike Enhanced Privacy. Similar to Enhanced Privacy, the AES also supports multiple keys. For AES encryption a special license is required.

You can specify the encryption keys for incoming and outgoing traffic on the digital channel in the **Security Settings** window.



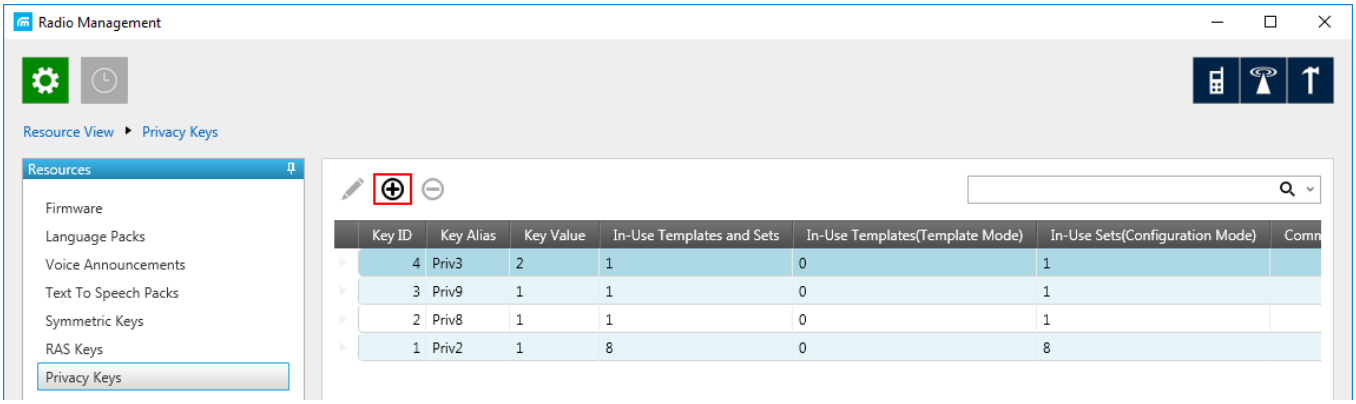
Copy: Copy encryption settings of the channel to the clipboard.

Paste: Paste encryption settings of the channel from the clipboard.

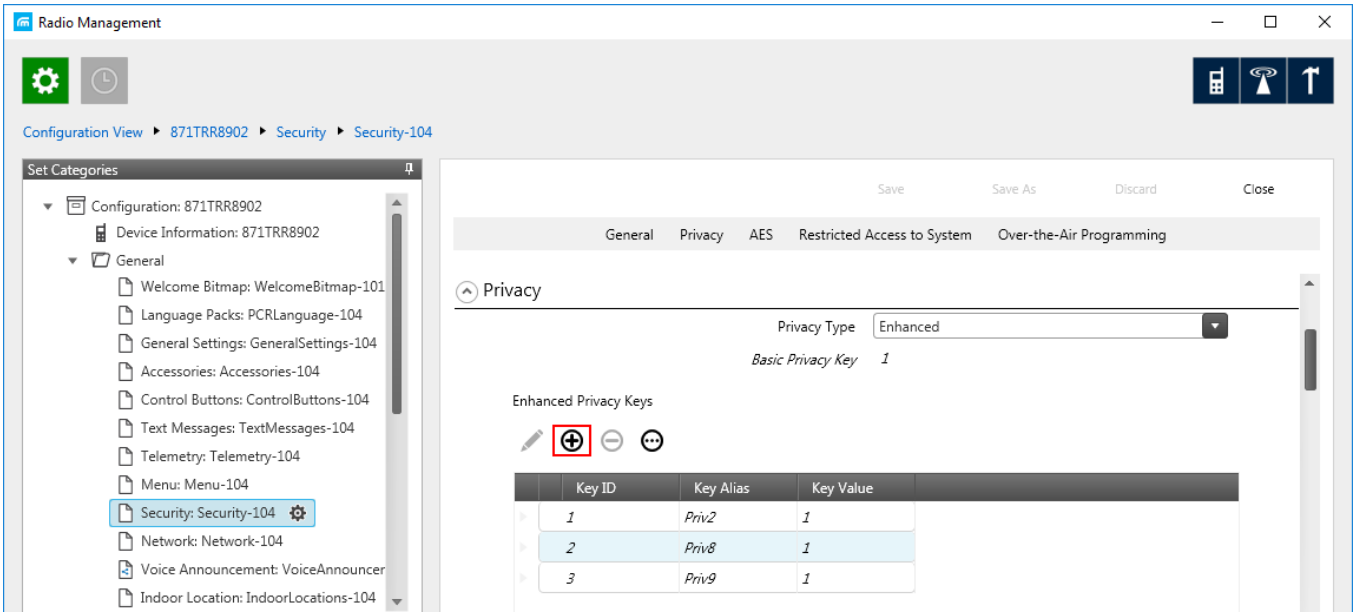
Enhanced Privacy

To configure **Enhanced Privacy**, follow these steps:

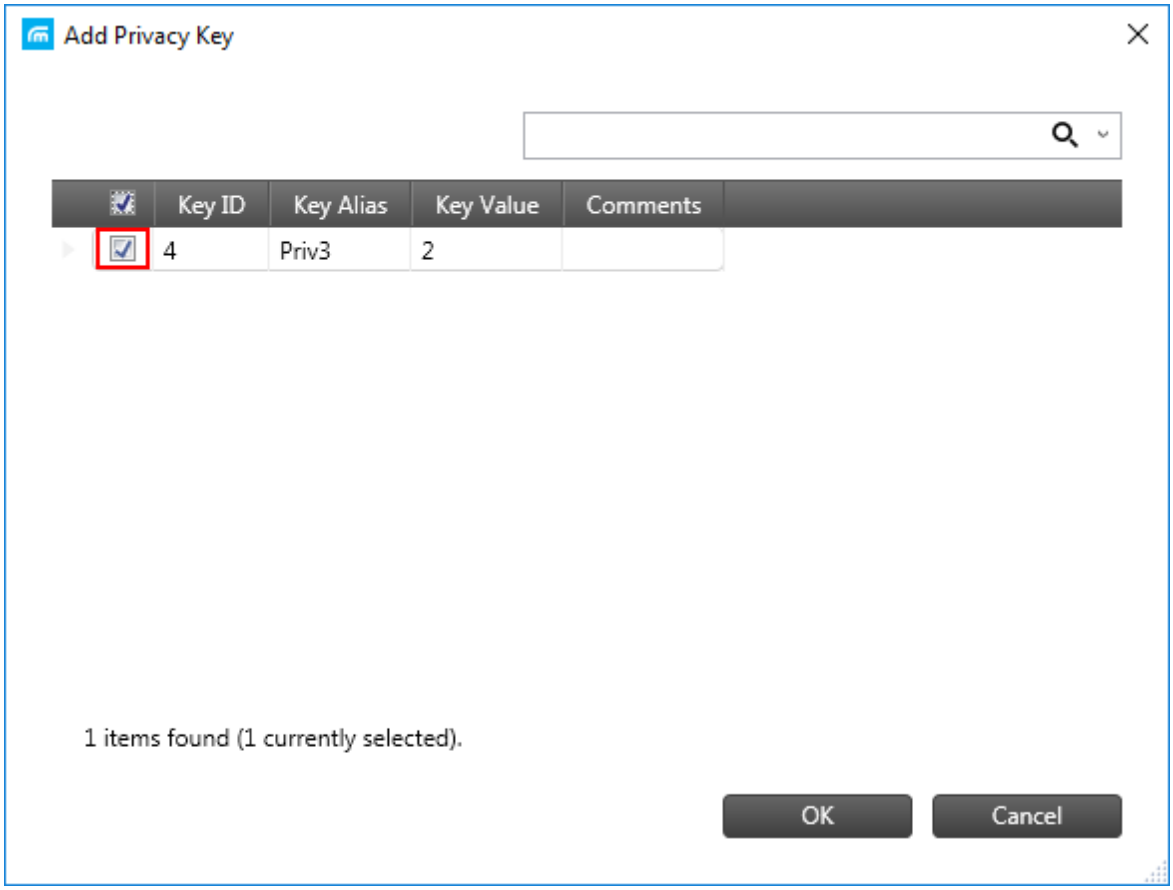
1. Run the *Radio Management* application.
2. In the **Privacy Keys** tab of the Radio Management application add the enhanced privacy key. Enter its ID and value in the corresponding fields.



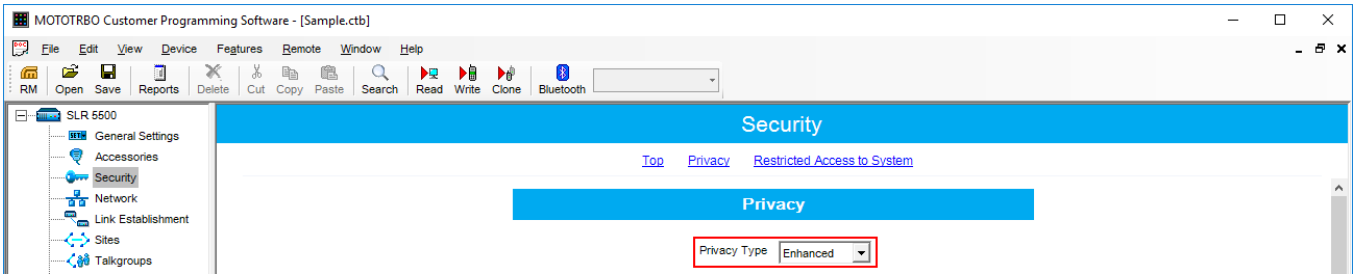
2. Open the configuration of the required radio station and in the **Set Categories** menu click **General** → **Security**. To make the added enhanced privacy keys available for selection, add them in the selection set. To do that, in the **Privacy** tab click the **Add**.



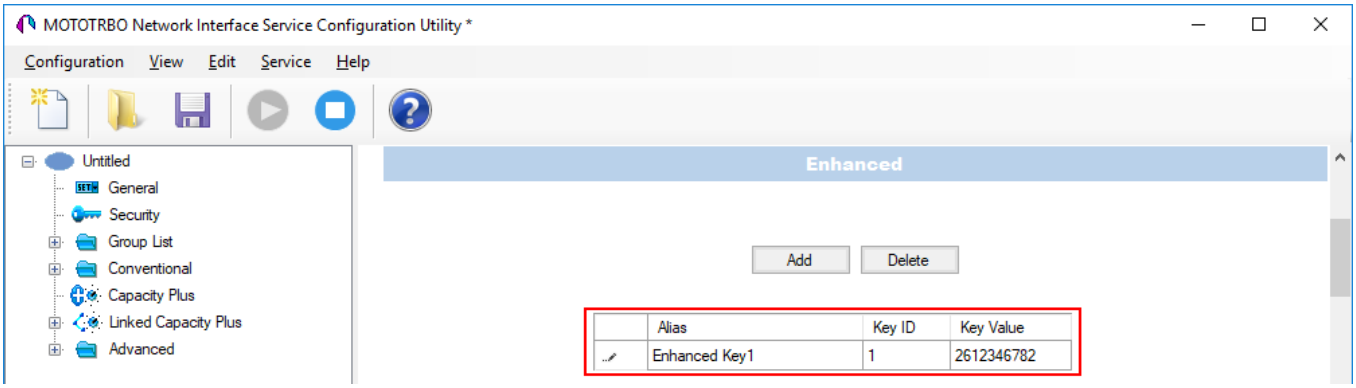
3. In the **Add Keys** window, select the required keys, which you want to be available for selection in the **Privacy Alias** field when specifying the enhanced key on the channel and click **OK**.



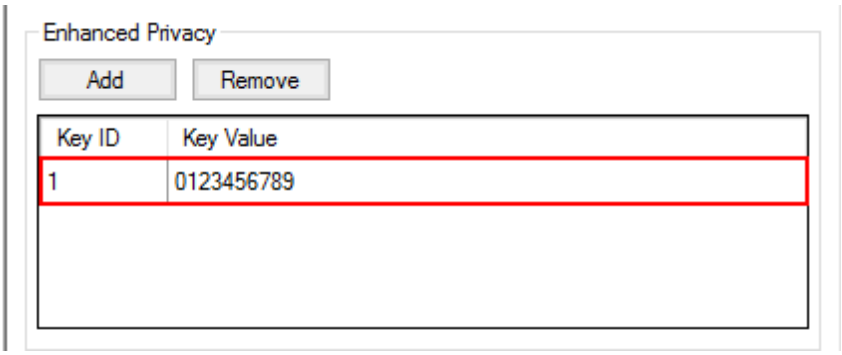
4. In the **Security** window of the repeater settings in *MOTOTRBO CPS* in the **Privacy Type** field select **Enhanced**.



5. In the **Security** window of *MOTOTRBO Network Interface Service Configuration Utility* in the **Enhanced** field add the enhanced privacy key. Enter its ID and value in the corresponding fields.



6. In the **Security Settings** window of SmartPTT Radioserver Configurator add an enhanced privacy key for incoming traffic. Enter its ID and value in the corresponding fields.



NOTE

Key ID and Key Value must match the values set in the radio settings in the *Radio Management* program and *MOTOTRBO Network Interface Service Configuration Utility*. If the values in the Key ID fields are the same, but the values in the Key Value fields do not match, the receiving side hears only a distorted voice. If the key identifier of the transmitting side does not coincide with one of the key identifiers in the list of the receiving side, then transfer to the receiving party will not be heard.

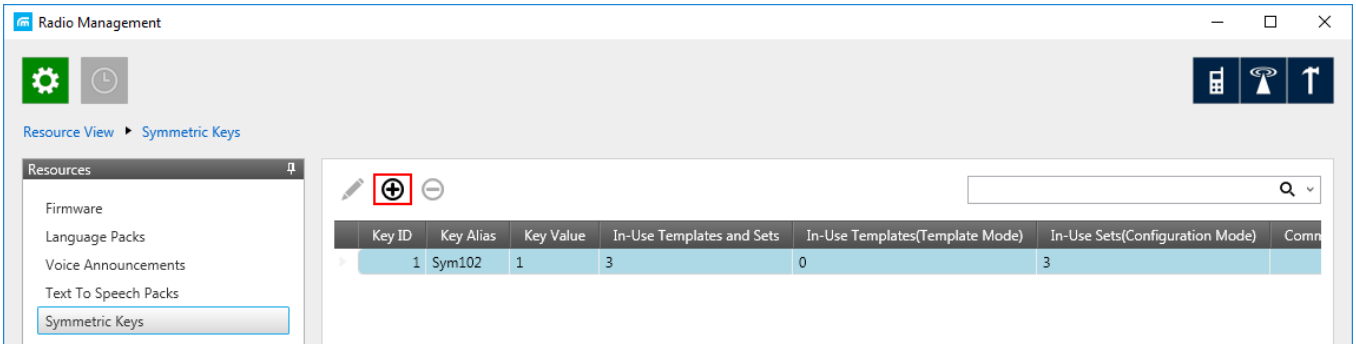
7. Click **Save** to save changes.

8. Click **Restart** to restart *SmartPTT Radioserver* and apply changes.

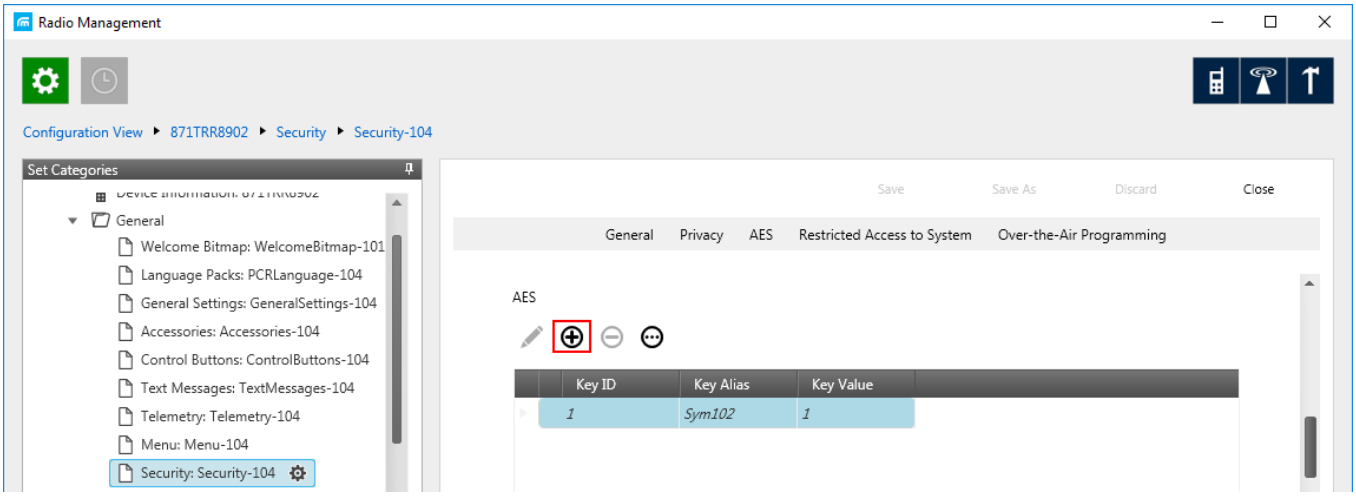
AES Privacy

To configure the **AES** privacy, follow these steps:

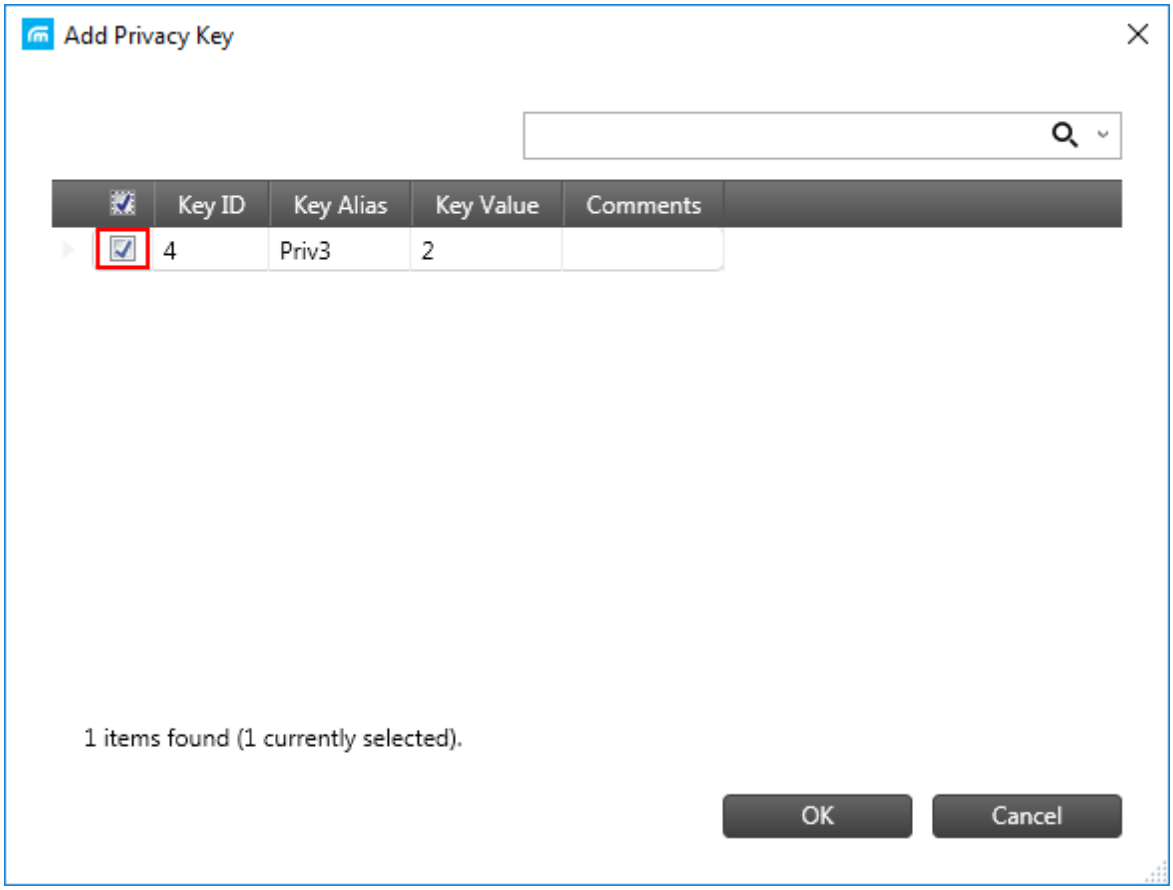
1. Run the *Radio Management* application.
2. In the **Symmetric Keys** tab of the *Radio Management* application add the AES privacy key. Enter its ID and value in the corresponding fields.



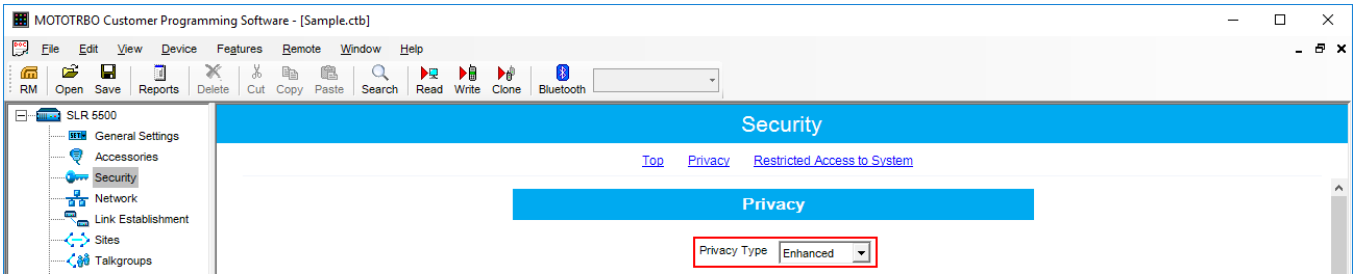
2. Open the configuration of the required radio station and in the **Set Categories** menu click **General** → **Security**. To make the added AES privacy keys available for selection, add them in the selection set. To do that, in the **AES** field, click **Add**.



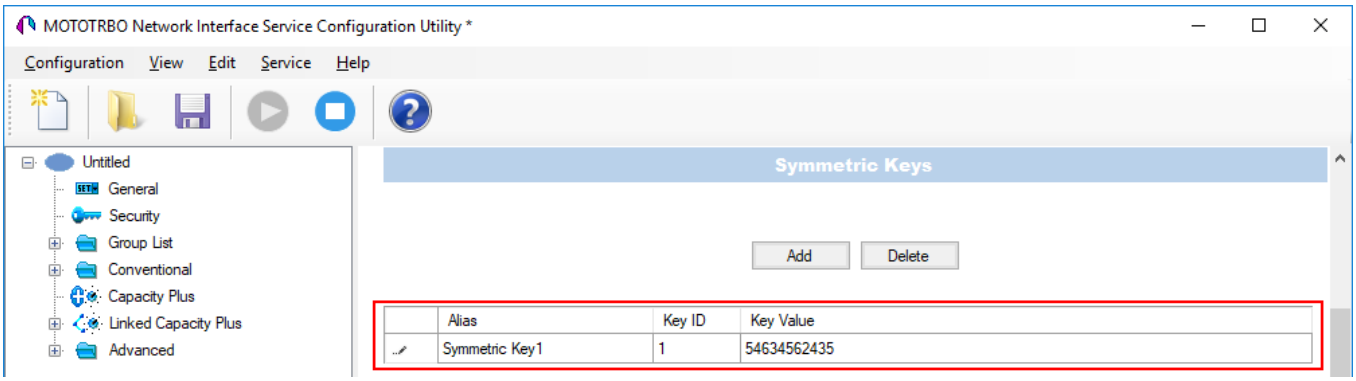
3. At that the **Add Keys** window appears: Select the required keys, which you want to be available for selection in the **AES Alias** field when specifying the AES privacy key on the channel and click **OK**.



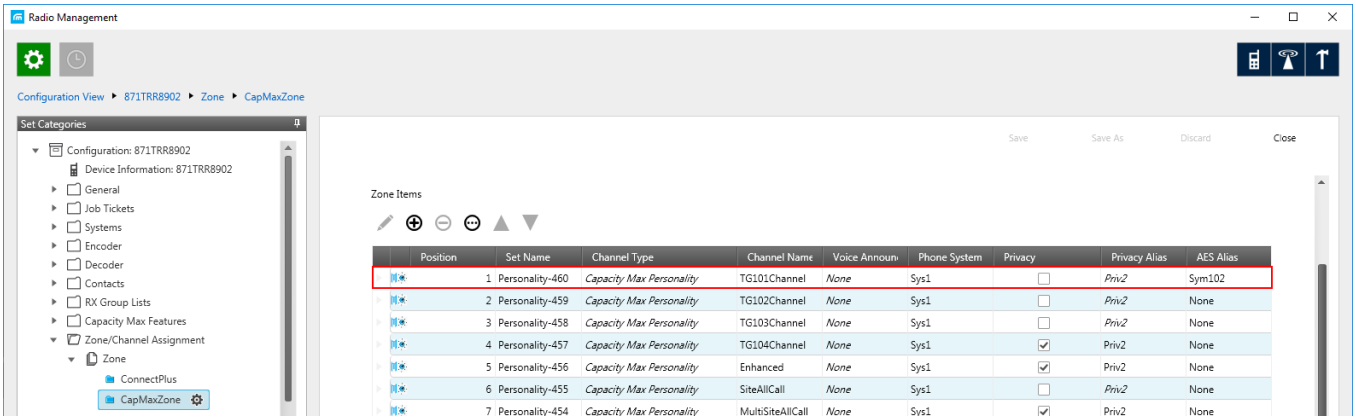
4. In the **Security** window of the repeater settings in *MOTOTRBO CPS* in the **Privacy Type** field select **Enhanced**.



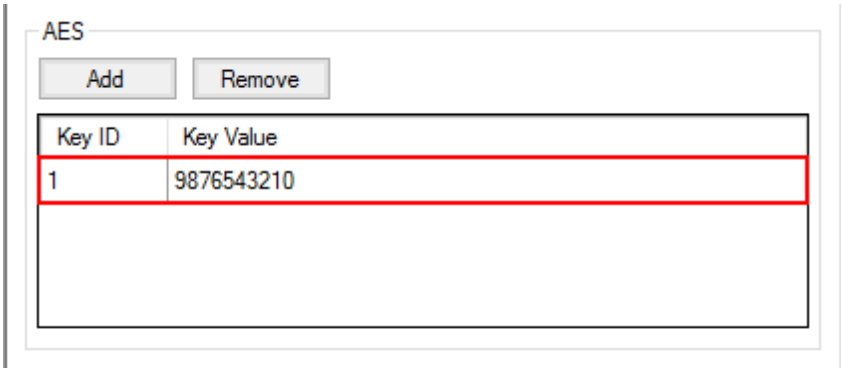
5. In the **Security** window of MNIS in the **Symmetric Keys** area, add the AES symmetric privacy key. Enter its ID and value in the corresponding fields.



6. In the radio settings in the *Radio Management* application to enable the AES encryption mode on the required channel, clear the **Privacy** check box and in the **AES Alias** field select the **AES privacy key**.



7. In the **Security Settings** window of *SmartPTT Radioserver Configurator* add an AES privacy key for incoming traffic. Enter its ID and value in the corresponding fields.



NOTE

Key ID and Key Value must match the values set in the radio settings in the Radio Management program and in MOTOTRBO Network Interface Service Configuration Utility. If the values in the Key ID fields are the same, but the values in the Key Value fields do not match, the receiving side hears only a distorted voice. If the key identifier of the transmitting side does not coincide with one of the key identifiers in the list of the receiving side, then transfer to the receiving party will not be heard.

8. Click **Save** to save changes.

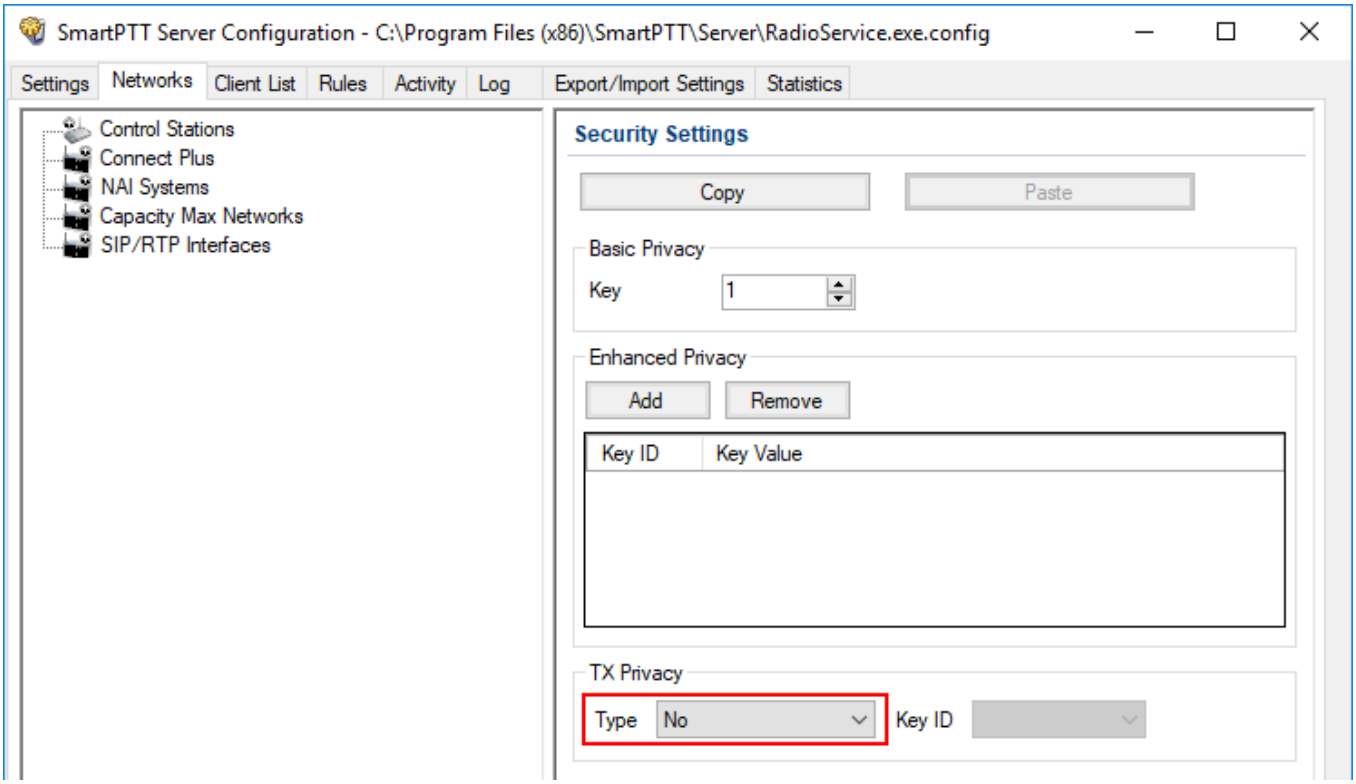
9. Click **Restart** to restart *SmartPTT Radioserver* and apply changes.

TX Privacy

TX Privacy is used for selecting an encryption mode for outgoing traffic on the side of *SmartPTT Dispatcher*.

To configure the TX Privacy for a Capacity Max system, follow these steps:

1. In the **TX Privacy** area, from the **Type** list select the desired encryption type:



   - Select *No* if encryption of outbound traffic from the radioserver is not required.
   - Select *Enhanced* if you want to use enhanced encryption for outgoing traffic from the radioserver. Use the Key ID you specified in the **Enhanced Privacy** area.
   - *AES license is required:* Select *AES (Symmetric Key)* if you want to use AES (*Symmetric Key)* encryption for outgoing traffic from the radioserver. Use the Key ID you specified in the **AES** area.

NOTE

If from the **Type** field *No* is selected and you have AES encryption for incoming traffic configured, AES (Symmetric Key) is used for incoming traffic by default.

2. Click **Save** to save changes.
3. Click **Restart** to restart *SmartPTT Radioserver* and apply changes.

1.7 Adding Console in Radio Management

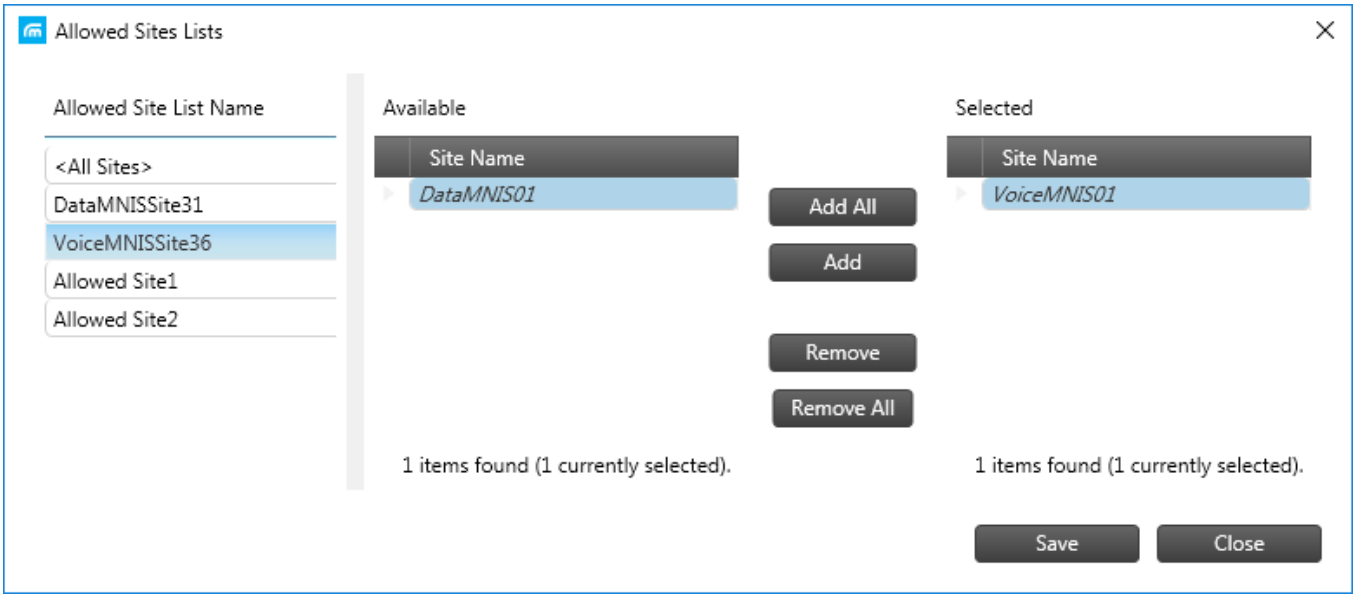
Radio Management dispatch console is used for providing a dispatcher with an access to the Capacity Max network.

To add console in *Radio Management*, follow these steps:

1. Click **Actions**, and select **Manage** →**Capacity Max System Server Data**.
2. Click **Add** ⊕.
3. In the open **Add Device** window, from the **Device Type** list, select *Console* and click **OK**.

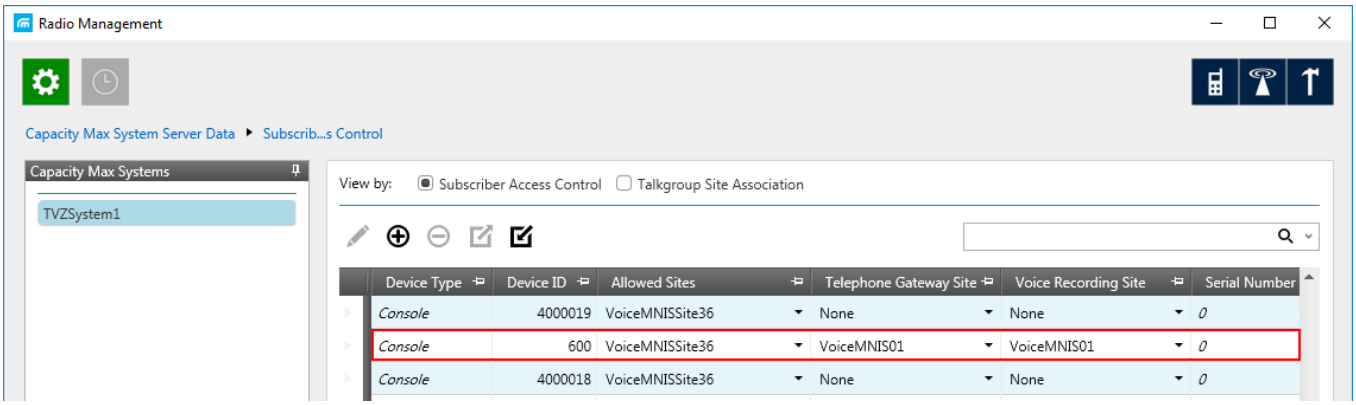
4. In the table, in the added console row, perform the following actions:
   a. In the **Device ID** column, enter radio ID for the console.
   b. In the **Allowed Sites** column, from the list select **Edit**.
      i. In the **Allowed Sites Lists** window, from the **Allowed Site List Name**, select the desired site for registering.

ii. Click **Save**.



c. In the **Telephone Gateway Site** column, from the list select the desired site for telephone recording.

d. In the **Voice Recording Site** column, from the list select the desired site for voice recording.



1.8 Configuring Joint GPS and Indoor Data

If you want to receive joint location data (GPS and indoor) in Capacity Max, configure the following settings:

- Radio settings in *Radio Management*
- Radio settings in SmartPTT Dispatcher

- Repeater settings in *Radio Management*
- Capacity Max settings in *Radio Management*

1.8.1 Configuring Capacity Max in Radio Management

To configure Capacity Max in *Radio Management*, follow these steps:

1. Click **Actions**, and select **Manage** →**Sets**, or press Alt+S.
2. In the **Set Categories** pane, select **Capacity Max features** →**Capacity Max Systems**.
3. In the left column of the table, click ▸ to select the desired **Capacity Max** system.
4. Click **Edit**.
5. In the **Data Revert** tab, from the **Enhanced GNSS Window Size** list, select the value *10*.
6. Save changes.

1.8.2 Configuring Repeater in Radio Management

To configure Capacity Max in *Radio Management*, follow these steps:

1. Click **Actions**, and select **Manage** →**Sets**, or press Alt+S.
2. In the **Set Categories** pane, select **Capacity Max features** →**Capacity Max Systems**.
3. In the left column of the table, click ▸ to select the desired **Capacity Max** system.
4. Click **Edit**.
5. In the **Capacity Max Sites** tab, perform the following actions:
   a. In the left column of the table, click ▸ to select the desired **Capacity Max** system.
   b. Click **Edit**.
6. In the **Capacity Max Channels** tab, perform the following actions:
   a. In the left column of the table, click ▸ to select the desired **Capacity Max** system.
   b. Click **Edit**.
7. In the **General** tab, from the **Channel Type** list, select *Data Revert Channel*.
8. Save changes.

1.8.3 Configuring Radio in Radio Management

To configure radio in *Radio Management*, follow these steps:

1. Click **Radio View** .
2. In the left column of the table, click ▸ to select the desired radio.
3. Click **Edit** .
4. In the **Set Categories** pane, perform the following actions:
   a. Expand **Configuration** → **Zone/Channel Assignment** → **Zone**.
   b. Select the desired Capacity Max zone.
5. In the left column of the table **Zone Items**, click ▸ to select the desired channel.
6. Click **Edit** .
7. In the **General** tab, from the **Compressed UDP Data Header** list, select *DMR Standard*.
8. In the **RX/TX** tab, clear the **CSBK Data** check box.
9. Save changes.

1.8.4 Configuring Radio in SmartPTT Dispatcher

To configure radio in SmartPTT Dispatcher, follow these steps:

1. Open the radio properties window.
2. In the **Location** tab, perform the following actions:
   a. Select the **Indoor Tracking** check box.
   b. Select the **Update Interval** check box, and enter *30* in the field.