

Capacity Plus

Configuration Guide

Version 8.3



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1 Introduction

SmartPTT is a software package designed to manage communication between linear-extended and geographically-distributed objects where it is necessary to facilitate voice and data transmission and dispatching of remote radio network control stations.

SmartPTT Enterprise allows users to connect to the Capacity Plus network repeaters directly over IP. This approach reduces the amount of the MOTOTRBO equipment used in the system (radios functioning as control stations).

The following picture displays the scheme of the direct connection between SmartPTT radioserver and Capacity Plus radio network repeaters (Fig.1).



Fig. 1 - Direct connection to the Capacity Plus radio network

Here, SmartPTT Radioserver connects directly over IP to the Master repeater of the Capacity Plus network to receive incoming voice and data traffic. To organize outgoing voice and data traffic, control stations (MOTOTRBO

digital mobile radios) are connected to the SmartPTT radioserver via USB and audio cables. The audio cable is used only for control stations that provide outgoing voice calls.

This guide describes how to configure the following system components to implement dispatch control system over Capacity Plus radio network:

- Repeaters
- Control stations and subscriber radios
- SmartPTT radioserver

In this document we presume that the system is built based on the following hardware:

- Three MOTOTRBO DR 3000 repeaters Master (Trunk), Slave (Trunk), Slave (Data Revert)
- Two TX control stations (Group1, Group2)
- One subscriber radio
- SmartPTT Dispatcher
- SmartPTT radioserver with two sound cards

2 Brief Information on Use of Control Stations

- There are 2 roles performed by control stations: data control stations and voice control stations. A single control station can play both roles or be dedicated to data or voice only.
- Neither data nor voice control stations are displayed in SmartPTT Dispatcher subscriber tree, but automatically controlled by the radioserver.
- Data control station is used for data transmission (ARS request, GPS request, telemetry request, Radio Check, Call Alert, Radio "Kill" command, outgoing text messages). Dedicated data control station doesn't require sound device and can be connected via USB only.
- To dedicate a control station to data transmission only, remove the Active checkbox at the Sound section of the TX Radio folder in SmartPTT Radioserver Configurator Settings tab.
- You can use multiple data control stations to balance workload depending on the system capacity. All data control stations must have the same **Radio ID** equal to the **ID** of the virtual Capacity Plus control station specified in SmartPTT Radioserver Configurator.
- Voice control station must be connected to the radioserver by means of USB and audio cables.
- There are 2 ways how to set **Radio ID** on voice control station:
 - To set Radio ID of the voice control station equal to ID of the virtual Capacity Plus control station specified in SmartPTT Radioserver Configurator. In this case all voice control stations will belong to a single pool. The radioserver will automatically select the available free control station to make dispatcher voice call.
 - 2. To set unique Radio IDs on all voice control stations. This can be useful if you need to assign a dedicated voice control station to a specific dispatcher. Use Profiles in SmartPTT Radioserver Configurator to set up dispatcher profiles to have a dedicated voice control station. Use the radioserver settings in the dispatcher console to assign the profile to the dispatcher.
- For dispatchers located within the Capacity Plus radio coverage it is recommended to use portable radios, not mobile radios, to make outgoing voice calls to reduce the amount of radios connected to the radioserver. Voice control stations must be used to make outgoing voice calls from the dispatcher console located outside the Capacity Plus radio coverage.
- Voice call control station must be programmed with the channels for each talk group. So, the amount of

channels programmed for voice control station must be equal to the amount of used talk groups. To assign the channels to groups use **Groups / Channels** in **TX Station** settings in SmartPTT Radioserver Configurator.

3 MOTOTRBO Equipment Programming

To program MOTOTRBO equipment you will need MOTOTRBO Customer Programming Software (CPS).

- 1. Connect your device to the PC via a programming cable and launch MOTOTRBO CPS.
- 2. Switch on the device and check its settings by clicking the Read button in the tool bar (Fig.2).

	мотот	RBO Custor	ner Progra	mming So	ftware					di terme			x
E	ile <u>E</u> o	dit <u>V</u> iew	Device	Features	Remote	<u>H</u> elp							
0	pen Sa	ave Repor	ts Delete	Cut C	iopy Paste	Search	Read Write	Clone	Bluetooth	192.168.11.1	*		
									Expert View	1		NUM	

Fig. 2 - Reading device settings in CPS

3. In the **View** menu select **Expert** to gain access to all the setting parameters (Fig.3).

MOTOTRBO Customer Programmir	ng Software	
<u>File Edit View Device Feat</u>	ures <u>R</u> emote <u>H</u> elp	
🖆 🔚 🗹 <u>T</u> ool Bar	6 🖻 🛍 🔍 🕨 🔰 🕅	192.168.11.1
: Open Save	ut Copy Paste Search Read Write Clone	Bluetooth
Help Pane		
Basic		
✓ <u>E</u> xpert		
Switch to Expert View	E	xpert View NUM

Fig. 3 - Selecting Expert View in CPS

4. In the **Device Information** tab make sure that firmware version is no older than R01.08.32. Otherwise, contact the supplier to request firmware upgrade (Fig.4).

Note: It is recommended to use the same firmware version for all MOTOTRBO equipment on the same network.



5. To apply the changes in the settings, click Write (next to the Read button in the tool bar).

3.1 Programming Repeter

3.1.1 Master Repeater Settings

- 1. In the Channels tab create Capacity Plus Voice Channel (Master_Trunk).
- 2. Set the Slot 1 Channel ID equal to 1 (Fig.5).

DR 3000		Master_Trunk	
Accessories		Top BY TY	
Security			
Network		Color Code 1	÷
Sites		RSSI Threshold (dBm)	o 🖃
		[-10	
- Channels		Preference Level 1	•
Master_Trunk		Slot 1 Channel ID 1	÷
		Slot 2 Channel ID 2	
	RX		ТХ
		Offset (MHz)	
	Frequency (MHz) 141.225000	5.000000 Copy	Frequency (MHz) 136.225000
	Ref Frequency (MHz) Default		Ref Frequency (MHz) Default
			Power Level High 💌
			TOT (sec) 60 ÷
1	Fig. 5 - Setting Slot 1 Channel ID	for Master repea	ater

- 3. In the **Network** tab select *Master* in the **Link Type** field.
- 4. Set the repeater and gateway IP addresses, gateway network mask, and UDP port (Fig.6).

DR 3000				Netv	vork		
Accessories	Тор	Radio Network	Link Establishmer	I <u>P Site C</u>	onnect	Capacity Plus	IP Repeater Programming
Network			L	nk Establ	lishmer	nt	
				Link Type	Master	•	
Zone1			Aut	nentication Key			
				Master IP	192	. 168 . 7	. 173
			M	ister UDP Port	50000	÷	
				DHCP			
				Ethernet IP	192	. 168 . 7	. 173
				Gateway IP	192	. 168 . 7	. 1
			Gat	eway Netmask	255	· 255 · 255	. 0
				UDP Port	50000	•	
			Peer Firewall Op	en Timer (sec)	6 ÷		
F	ig. 6 -	Setting Netwo	ork parameter	s for Mas	ter rep	eater	

3.1.2 Slave Repeater Settings for Voice Transmission (Trunk)

- 1. In the Channels tab create Capacity Plus Voice Channel (Slave_Trunk).
- 2. Set the Slot 1 Channel ID equal to 3 (Fig.7).

DR 3000		Slave_Trunk	
Accessories		<u>Top RX TX</u>	
Security		Color Code 1	-
Sites	R	SSI Threshold (dBm)	 0 ÷
		Preference Level 1	•
Line Zone1		Slot 1 Channel ID 3	÷
		Slot 2 Channel ID 4	
	RX		ТХ
		Offeet (MHz)	
	Frequency (MHz) 141.225000	5.000000 Copy	Frequency (MHz) 136.225000
	Ref Frequency (MHz) Default		Ref Frequency (MHz) Default
			Power Level High 💌
			TOT (sec) 60 ÷
	Fig. 7 - Setting Slot 1 Channel ID	for Slave repeate	er

- 3. In the **Network** tab select *Peer* in the **Link Type** field (Fig.8).
- 4. Enter Master IP and UDP port (Fig.8).
- 5. Set Ethernet IP, Gateway IP and Gateway Netmask (Fig.8).

DR 3000	Network
Accessories	Top Radio Network Link Establishment IP Site Connect Capacity Plus IP Repeater Programming
Image: Security Image: Security Image: Network Image: Sites Image: Sites	Link Establishment Link Type Peer Authentication Key Image: Comparison of the second seco
	рнср 🗔
	Ethernet IP 192 . 168 . 7 . 224
	Gateway IP 192 . 168 . 7 . 1
	Gateway Netmask 255 . 255 . 255 . 0
	UDP Port 50000 ÷
	Peer Firewall Open Timer (sec)
	Fig. 8 - Setting Network parameters for Slave repeater

3.1.3 Slave Repeater Settings for Data Transmission (Trunk)

1. In the Channels tab create Capacity Plus Data Channel (Slave_DataRevert) (Fig.9).

DR 3000		Ş	Slave_	DataRever	t		
Accessories		<u>Top</u>	Enhand	ed GPS RX	IX		
Network	Color Code 1 +						
Channels	Enhanced GPS						
Slave_DataRevert		Enable	Window Size	Periodic Window Reservation (%)	Shared Channel Frequency		
	Slot 1		8 *	75 💌			
	Slot 2		8 🗼	75 💌			
Fig. 9 - Creating a channel							

2. Select *Peer* in the **Link Type** field in the **Network** tab (Fig.10).

- 3. Enter Master IP and UDP port (Fig.10).
- 4. Set Ethernet IP, Gateway IP and Gateway Netmask (Fig.10).

DR 3000 General Settings	Network
Accessories	Top Radio Network Link Establishment IP Site Connect Capacity Plus IP Repeater Programming
Network	Link Establishment
	Link Type Peer
⊡ 🔁 Zone1	Authentication Key
	Master IP 192 . 168 . 7 . 173
	Master UDP Port 50000 ÷
	DHCP
	Ethernet IP 192 · 168 · 7 · 219
	Gateway IP 192 · 168 · 7 · 1
	Gateway Netmask 255 · 255 · 0
	UDP Port 50000
	Peer Firewall Open Timer (sec)

Fig. 10 - Setting Network parameters for Slave repeater

3.2 Programming Control Station

3.2.1 TX Control Station Settings

Trunk control stations are used for two-way group calls on the dispatcher console. To eliminate group calls lost

because of the busy channel, each control station must be programmed to work with one only talk group.

All trunk control stations must have different Radio IDs.

1. In the Network tab set Forward to PC to Via USB (Fig.11).



2. In the Contacts tab add subscriber groups to the contact list. Set unique Call ID for each group (Fig. 12).

Contacts	*		Capacity Plus					
🕂 ···· 🚞 Quik-Call II					Call			
🕂 ···· 🧰 Digital			Contact Name	Call ID	Receive			
🖻 ···· 💼 Capacity Plus					Tone			
GroupCall1		Cað	GroupCall1	1 ÷				
GroupCall2	=	Caô	GroupCall2	2 ÷				
RX Group Lists	-	Cað	GroupCall3	3 ÷				
E Channels		. <mark>C3</mark> 0	GroupCall4	4 ÷				
Fig. 12 - Adding groups in the Contacts tab								

 In the RX Group Lists tab switch to an Available list. Add created groups from the Available section to the Members list (Fig.13).



4. Add Capacity Plus Voice Channel for Master repeater to Channel Pool. Set frequency pair of the trunk

repeater (Fig.17).

DM 3601	Vo	oiceTrunkMas [®]	ter
		Top RX TX	
III Buttons III Text Messages		Color Code 1 ÷	
💷 Telemetry 📷 Menu	DY		TY
Security			
E Signaling Systems		Offset (MHz)	
Et Contacts	Frequency (MHz) 136.225000	Copy	Frequency (MHz) 141.225000
😑 📋 Channels	Ref Frequency (MHz) Default 💌		Ref Frequency (MHz) Default
VoiceTrunkMaster	Sotting frequency pair for Maste	r ropostor ch	annal

5. Add **Capacity Plus Voice Channel** for Slave repeater to **Channel Pool**. Set frequency pair of the trunk repeater (Fig.18).

⊡	Vo	iceTrunkSlave	
General Settings			
		Top RX TX	
Buttons			
····· 🖂 Text Messages		Color Code 1 ÷	
····· 100 Telemetry			
······ 🛅 Menu	RX		ТХ
Security	1 UX		
		Offset (MHz)	
🗄 ···· 🚞 Signaling Systems			
🗄 ···· 📄 Contacts	Frequency (MHz) 136.225000	5.000000	Frequency (MHz) 141.225000
🕂 🚞 RX Group Lists		Conv	
🚊 💼 Channels		Сору	
🚍 🥎 Channel Pool	Ref Frequency (MHz) Default		Ref Frequency (MHz) Default
⊕ W VoiceTrunkMaster ⊕ W VoiceTrunkSlave			
Fig. 15	 Setting frequency pair for Slave r 	epeater chann	el

Add the created voice channels to the **Members** list of Capacity Plus voice channels. Add the channel pool of the Master (Trunk) repeater first (**ID** = 1-2), then add the channel pool of the Slave (Trunk) repeater (**ID** = 3-4) (Fig.19).

	*	CapList	Voice
E Contacts		Available	Members IDs
Channels			VoiceTrunkMaster 1-2
⊞ 💼 Scan ⊞ 💼 Roam			Voice I runk Slave 3-4 5-6 7-8
Capacity Plus	=	Add >>	9-10
		<< Remove	
🕂 🕂 🔲 Data	Fig. 16	- Adding channels to the Members list	

7. In the **Channels** section create a trunk channel dedicated to GroupCall1 and do the following settings (Fig.14).



Fig. 17 - Setting parameters for GroupCall1 channel

8. In the **Channels** section create a trunk channel dedicated to GroupCall2 and do the following settings (Fig.15).



9. In the **Channels** section create a trunk channel dedicated to data transmission and do the following settings (Fig.16).



3.2.2 Control Station Settings for Dispatcher Individual Calls

Trunk (Dispatcher) MOTOTRBO control stations are used for private calls, private text messages from the the dispatch console or for Telephone Interconnect Service.

Settings for Trunk (Dispatcher) control station are the same as for TX control station, but with one difference: **Private Call** must be added to Capacity Plus contacts, instead of **Group Call**.

3.3 Subscriber Radio Settings

1. Create channel pool for Master (Trunk) repeater (Fig.20).

j Digital ⊡	^	Ca	pPoolVoiceMa	st
ি — 🚔 Capacity Plus — ৡ্টি Capacity Voice — 🚔 Channels			Top EX TX Color Code 1	
😑 💼 Zone 1 Gir CapTrunk Channel E 🎲 Channel Pool		RX		ТХ
Cap Pool Voice Mast Cap Pool Voice Slav Cap Pool Voice Slav Cap Pool Data Slot1 Cap Pool Data Slot2		Frequency 136,225000 (MHz)	Offset (MHz)	Frequency (MHz) 141,225000
	=	Ref Frequency (MHz) Default 💌		Ref Frequency (MHz) Default
Constitu Dius	F	∣ Fig. 20 - Creating channel pool for ∣	Master repeater	

2. Create channel pool for Slave (Trunk) repeater (Fig.21).

i⊟ i Digital	^	Caj	oPoolVoiceSla	av
Capacity Plus			Top RX TX	
Channels			Color Code 1 ÷	
Channel Pool		RX		ТХ
CapPoolVoice Mast			Offset (MHz)	
CapPoolDataSlot1		Frequency 139,225000 (MHz)	0,000000	Frequency (MHz)
⊟ ⊜ Scan	_	Ref Frequency Default	<u>С</u> ору	Ref Frequency Default
□		(MHZ) '		(MHZ) '
🚍 🚔 Canacity Plus		Fig. 21 - Creating channel pool for	Slave repeater	

3. Create channel pool for slot 1 of Slave (DataRevert) repeater (Fig.22).



4. Create channel pool for slot 2 of Slave (DataRevert) repeater (Fig.23).

🚍 🖷 🚞 RX Group Lists		C	anPoolDataSlot2	
📄 🔤 Digital		01		
			<u>Top RX TX</u>	
🖻 🚽 Capacity Plus				
👌 🛱 🗟 Capacity Voice			Color Code 🔒 🛨	
🚊 🗠 💼 Channels				
🚍 🛁 Zone 1			Repeater Slot 2	J
🛟 🙍 CapTrunk Channel			Enhanced GPS 🔲	_
🖻 – 🅎 Channel Pool				
🔤 🕄 CapPoolVoiceMast				
😌 🔐 CapPoolVoice Slav				
🚭 🎇 CapPoolData Slot1		RX		ТХ
CapPoolDataSlot2				
🚊 🗠 💼 Scan			Offset (MHz)	
Z, List1		Frequency	0.00000	Frequency
🚊 🗠 💼 Roam	=	(MHz) 146,225000	p,000000	(MHz)
Cist1			<u>C</u> opy	
📥 📹 Capacity Plus		Ref Frequency		Ref Frequency
🔄 🚞 Voice		(MHz)		(MHz)
Fig. 23	- C	reating channel pool for Slave (Dat	ta revert) repeater	Slot 2

5. Add created voice channel pools to Capacity Plus voice channel list (Fig.24).



Fig. 24 - Adding voice channel pools to voice channel list

6. Add created data channel pools to Capacity Plus data channel list (Fig.25).



Fig. 25 - Adding data channel pools to data channel list

7. Create Capacity Plus contacts (Fig.26).

n⊒ PC1		Capac	ity Plus	
ြားရားရေးက ကြိုင်းရေးက ကြိုင်းသားသားသားသားသားသားသားသားသားသားသားသားသား		Contact Name	Call ID	Call Receive Tone
G Private	► Ca	🖗 Group1	1	÷ 🗆
🖃 🖶 RX Group Lists	Ca	🚱 Group2	2	÷ 🗆
📄 🛁 Digital	Ci	👌 All Call	265	÷ 🗸
å∲≣ List1	C	Private	1	•
🖻 🖮 🤤 Capacity Plus	Fia.	26 - Adding contacts		

8. Add created contacts to Capacity Plus RX Group List (Fig.27).



9. Create Capacity Plus trunk channel (Fig.28).

⊡···· 💼 Digital 	CapTrunkChannel
	Top RX TX
	ARS On System Change 🔻
📥 🧮 Capacity Plus	Privacy
Group2	Privacy Alias Privacy Key1
المناقب مناقب مناقب مناقب مناقب مناقب مناقب من مناقب المناقب مناقب مناقب مناقب مناقب م	Option Board
⊡ 📩 Digital	Lone Worker
E Capacity Plus	Compressed UDP Data Header
	Voice List CapListVoice
Zone 1	Data List CapListData 💌
Channel Pool	Rest Channel 5
CapPoolVoiceMast 	Beacon Interval (ms)
🕂 🔐 CapPoolDataSlot1	RX Only
E Scan	RX TX
⊟ Roam	Group List CapacityVoice Contact Name Group1
È 💼 Capacity Plus È 🚔 Voice	Emergency Emergency System None

Fig. 28 - Creating trunk channel

10. Capacity Plus trunk channel settings (Fig. 29).



Fig. 29 - Configuring trunk channel settings

4 Programming Radioserver

SmartPTT implies direct connection to the repeaters operating in the Capacity Plus mode. Capacity Plus network can contain up to 6 repeaters (up to 12 time-slots) for voice communication and up to 12 repeaters (up to 24 time-slots) for data communication through revert channels. Several Capacity Plus systems can be connected to one SmartPTT Radioserver.

To work with Capacity Plus it is necessary to create a virtual repeater and virtual control station on SmartPTT Radioserver. For data transmission TX Control Stations are to be added.

4.1 Capacity Plus Settings

- 1. First, run SmartPTT Radioserver Configurator.
- To add a new Capacity Plus system right-click on Capacity Plus System in the setting tree of the Settings tab and chose Add (Fig.30).



Capacity Plus configuration window appears on the right (Fig.31).

Settings Rules Monitoring Client List Network Configur	ation Log Export	/Import Settings Statistics	
🖃 🕎 Radio Server	Capacity Plus		
Hadio Network Services Add-on Modules	🗹 Active		
Control Stations	Name	Capacity Plus	
Capacity Plus Systems	Network ID	12345	
Базовая станция Groups TX Stations	Peer ID	12345	
Gonnect Plus	Interface	192.168.0.158 🔽 Port	50001 😂
Adio Activity DMR Networks Connect Plus Networks Monitoring MNAI Networks	Master Repeater Address (host:port)	192.148.7.141:50001	Test
	Messaging Delay, n	ns	60
	Group Call Hang Ti	me, ms	3000
	Private Call Hang T	ime, ms	4000
	Emergency Call Ha	ng Time, ms	4000
	Authentication Key		

Fig. 31 - Capacity Plus settings window

Set up the following parameters (or accept the default).

Name - the Capacity Plus network name.

Network ID – unique ID of the Capacity Plus network.

Peer ID – unique identifier of the virtual repeater in Capacity Plus. Make sure it does not match any other repeater identifiers in this Capacity Plus system.

Interface (host:port) – network interface of the radioserver which will be used for connection with the repeaters in the Capacity Plus system.

Master repeater address (host:port) - IP address and port of Capacity Plus Master repeater.

Messaging Delay (ms) – the inter-repeater messaging delay.

Group Call Hang Time (ms) – the time period during which a radio will talk back to a received call or continue a transmitted Talkaround Group Call using the previously received or previously transmitted digital group ID. After expiration of the Talkaround Group Call hang timer, the radio will transmit using the TX Contact Name (digital group) specified for this channel in CPS.

Private Call Hang Time (ms) – the time period during which the radio keeps the Talkaround Private Call setup after the user releases the Push-to-Talk (PTT) button. 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 specified for this channel in CPS.

Emergency Call Hang Time (ms) – the time period during which the radio keeps the Talkaround Emergency Call setup after the user releases the Push-to-Talk (PTT) button. Until the hang time has run out only participants of the group call can transmit on the channel.

Authentication Key – repeater authorization key. Required only if it is set in CPS.

4.2 Virtual Control Station Settings

Capacity Plus virtual control station is designed for receiving data and voice.

To set up a virtual control station for Capacity Plus, click **Capacity Plus System**, select **Capacity Plus 1** and then **Control Station**. **Capacity Plus Control Station** window will open (Fig.32).

Settings Rules Monitoring Client List Network Configu	ration Log Expo	rt/Import Settings Statistics
Radio Server Radio Network Services Add-on Modules Control Stations IP Site Connect Networks Capacity Plus Systems Capacity Plus 1 Virtual CS Virtual CS TX Stations Connect Plus Radio Activity DMR Networks Connect Plus Networks Connect Plus Networks MNAI Networks SmartPTT Radioservers Notifies Subscriber Groups MultiGroups	Capacity Plus Co Capacity Plus Co Active Name ID CAI Network CAI Network for Groups Privacy Mode Key	Virtual CS 16448250 12 225 No • 1 •
E: 00 A L I		

Fig. 32 - Adding Capacity Plus Control Station

Set up the following parameters (or accept the default).

Name – the control station name. You cannot type more than 20 characters into this field.

Note: If two or more control stations are connected to the computer, one of the first three octets of the IP address

must be unique for each control station.

ID – the unique radio identifier which is used during communication with this radio. It is recommended to use 16448250 as ID. It is set in the range from 1 to 16776415.

CAI Network – CAI-Network identifier. It is recommended to use the default value of 12.

CAI Network for Groups – the identifier of the group's CAI-Network. It is recommended to use the default value 225.

Privacy Mode – encryption mode.

To set up groups of the virtual control station, click **Capacity Plus System**, **Capacity Plus 1**, **Virtual CS**, **Groups** in SmartPTT Radioserver Configurator **Settings** tab. The **Control Station Groups** window appears on the right (Fig.33).

Settings Rules Monitoring Client List Network Conf	iguration Log Export/Impo	ort Settings Statistics
 Radio Server Radio Network Services Add-on Modules Control Stations 	Control Station Group All Calls Add Beng	ve Copy Paste
Capacity Plus Systems Capacity Plus 1 Capacity Plus 1	Name All Calls	ID 255
Groups TX Stations	Group 1	1
Gonnect Plus Radio Activity DMR Networks Connect Plus Networks	Group 2	2
Fig. 33	- Adding Control Station	groups

Note: Configuring virtual control station groups for Capacity Plus is similar to the TX control station group settings.

4.3 TX Control Station Settings

TX control station is designed for voice and data communication.

First add TX control station. To do it click Capacity Plus System, select Capacity Plus 1, then right-click TX

Stations, and add the new TX control station (Fig.34).

Settings	Rules	Monitoring	Client List	Networ	k Configurati	on Log	Export/Import Settings	Statistics	
	Radio Se Radi Add- Cont P Si Capa	erver io Network Si on Modules rol Stations ite Connect N acity Plus Sys Capacity Plus Capacity Plus Capacity Corug Capacity Corug	ervices letworks stems 1						
	🛁 Conr	ib TX Statio nect Plus	Add	•	Cont	trol Station	MOTOTRBO		
	Radi Conr MNA Sma Rofi Subs Subs	io Activity DM nect Plus Net Al Networks rtPTT Radios les scriber Group iGroups	IR Networks works Monit servers s	; oring					
					Fig. 34 - A	dding TX	Control Station		

TX Control Station window appears on the right (Fig.35).

Settings Rules Monitoring Client List Network Configu	ration Log Expor	rt/Import Settings Statistics					
🖃 🜉 Radio Server	Control Station (MOTOTRBO)					
Hadio Network Services Add-on Modules	🗹 Active						
Control Stations	Name	TX Station 1					
Capacity Plus Systems Capacity Plus 1	Interface	192.168.10.1					
□····································	ID	1					
TX Station 1	CAI Network	12					
Audio	CAI Network for Groups	225					
- 🚔 Radio Activity DMR Networks	ARS	Port 4005					
MNAI Networks SmartPTT Radioservers	Location Service	ce					
Refiles Subscriber Groups	MS TMS	Port 4007					
MultiGroups	V Telemetry Servi	ice Port 4008					
	Allow Telephon	ne Interconnect					
Fig. 35 - TX Control Station settings window							

Set up the following parameters (or accept the default).

Name - TX control station name

IP – TX control station IP address, which is configured in CPS.

ID – TX control station Radio ID configured in CPS.

For setting up **Groups / Channels** of the TX control station click the **Groups / Channels** item in the tree of SmartPTT Radioserver Configurator. The **Groups / TX Radio Channels** window will appear on the right (Fig.36).

Settings Rules Monitoring Client List Network Configu	ration Log Export	Import Settings S	tatistics	
 Radio Server Radio Network Services Add-on Modules Control Stations Figure 1P Site Connect Networks 	Groups / TX Radio All Calls Add	Channels Remove	Сору	Paste
Capacity Plus Systems	Name	ID	Zone	Channel
in Copacity Has I	All Calls	255	1	3
T Groups	Group 1	1	1	1
i → → TX Stations	Group 2	2	1	2
<mark>48 <u>Groups / Channels</u> © Audio</mark>				
🗄 🚔 Connect Plus				

Fig. 36 - Adding TX Control Station Groups

Name – channel name.

ID – channel identifier as programmed in CPS.

Zone – index number of the channel group as programmed in CPS.

Channel – channel index number as programmed in CPS.

All Calls channel is designed for All calls, private calls and data communication.

To delete Capacity Plus System, right-click the existing Capacity Plus System and click Delete.