

SmartPTT Express Quick Start Guide



About This Document

SmartPTT Express Quick Start Guide briefly explains how to install and configure SmartPTT Express and prepare it for supervision and operation.

Before Installation

Before you install and configure SmartPTT Express, ensure that the following prerequisites are fulfilled.

Computer Prerequisites

- Use a computer/workstation that complies with SmartPTT Express hardware and operating system requirements.
- Assign an IPv4 address to each of the SmartPTT Express computers to support IP connection, voice calls, and radio user tracking on maps.
- Assign a second IP address to the SmartPTT Express Server computer if required to use both voice dispatch and voice logging.
- IP addresses must be always assigned to the computer, even if they are provided over a DHCP server.

Authorization Requirements

- If you intend to use local groups authorization in SmartPTT Express, perform the following actions:
 - Create at least one Windows user account on SmartPTT Express Server host to serve as SmartPTT Express administrator (an existing account can be used).
 - Create at least one user group on SmartPTT Express Server host to fill the administrator role in SmartPTT Express (an existing group can be used) and add the desired user account(s) to it.
- If you intend to use domain authorization, perform the following actions:
 - In the domain to which SmartPTT Express Server host belongs, create at least one group to fill the administrator role in SmartPTT Express (an existing group can be used).
 - Add the desired domain user accounts to the groups corresponding to their intended role in SmartPTT Express.
 For details and assistance, contact your system administrator.

For details and assistance, contact your system administrator.

IMPORTANT: The administrator group needs to be specified during SmartPTT Express installation. Four groups are required to fill all SmartPTT Express user roles. If there is no valid user with SmartPTT Express administrator privileges, it will not be possible to log on to SmartPTT Express Configurator. For details, see "System Roles & Authorization" in *SmartPTT Express Installation and Configuration Guide*.

DIMETRA Express Prerequisites

• Ensure that DIMETRA Express contains the following licenses:

Name	Necessity	Description
DIMETRA Express Core	Required	Core license.
Dispatch Console Position	Optional	Supports dispatch console connection with voice call, emergency alarm, patching and other functionality.
Voice Logging Capacity	Optional	Supports SmartPTT Express Server connection as an external voice logger and limits the number of simultaneous transmissions that can be recorded.
Radio Users	Required	Limits the number of radio users and console users in DIMETRA Express. Each console user refers to an authorized SmartPTT Express dispatcher.
Analog Gateway Channel	optional	Limits the number of donor radios connected via CCGW radio gateway.

NOTICE: Outdoor positioning functionality requires one of the optional licenses.

- Configure IP addresses of SmartPTT Express Server in DIMETRA Express according to the expected SmartPTT Express functions (Dispatch Console and/or External Voice Logger).
- If voice dispatch is required in SmartPTT Express, add console users in DIMETRA Express.
- If voice logging is required in SmartPTT Express, configure voice logging in DIMETRA Express.
- If location service is required in SmartPTT Express, configure the Short Data Transport Service in DIMETRA Express:
 - Ensure that at least one SDTS Host is configured.

Before Installation

- Ensure that radios are configured to send their coordinates to that SDTS Host using the Location Information Protocol (LIP). The system may have several SDTS hosts, each receiving location updates from different radios.
- Obtain the following DIMETRA Express configuration parameters:
 - IP address of the DIMETRA Express system.
 - Credentials of the voice logging client account.
 - DIMETRA Express host names used in communication with third-party (API) consoles and voice loggers.
 - Short Data host IDs and passnumbers (required for outdoor location support in SmartPTT Express).

If you need assistance in DIMETRA Express configuration or information gathering, contact Motorola Solutions representative in your region.

Map Access Prerequisites

SmartPTT Express supports maps in the OpenStreetMap (OSM) format. To show radio user location on the map, SmartPTT Express requires either an HTTP/HTTPS server that hosts OSM maps or an OSM map stored as files accessible by SmartPTT Express Client applications.

SmartPTT Express supports basic HTTP authentication in the map server. It also supports authorization with credentials (login and/or password) provision in the URL address.

Installing SmartPTT Express

- 1. Run the installation file from the computer where you want to install SmartPTT Express.
- 2. Select the language that will be used during installation and set as the initial language of SmartPTT Express Configurator and SmartPTT Express Client.
- 3. Read and accept the license agreement.
- 4. Select the SmartPTT Express components you want to install.



5. Leave default installation paths unchanged unless required to install to a different location.

Installing SmartPTT Express



IMPORTANT: If you are planning to maintain a large audio archive, it is advised to select a nonsystem drive with ample free space for server database location.

6. If you are installing SmartPTT Express Server, configure the following parameters:



- a. In the **System Name** field, type the SmartPTT Express system name.
- b. Configure user authorization:

To configure	perform the following actions:
domain authorization,	1. Under Authorization Type , select the Domain option.
	2. From the Domain list, select the desired domain name.
	3. From the Admin Group list, select the domain user group that will have administrator privileges in SmartPTT Express.
To configure local	perform the following actions:
authorization,	1. Under Authorization Type , select the Local Groups option.
	 From the Admin Group list, select the Windows user group that will have administrator privileges in SmartPTT Express.

- c. In the **Server IP Address** field, type the IP address of the SmartPTT Express Server computer that will be used for communication with SmartPTT Express Configurator.
- If you are installing SmartPTT Express Client, in the Client Configuration area, in the Server IP Address field, type the IP address of the SmartPTT Express Server computer that will be used for communication with SmartPTT Express Client applications.



- 8. Determine if shortcuts must appear on Windows Desktop or not.
- 9. Initiate installation. After it completes, restart the computer.

Configuring SmartPTT Express Server

- 1. Run SmartPTT Express Configurator, and then log on to it using SmartPTT Express administrator credentials.
- 2. On the left pane, click the **Licenses** tab, and then perform the following actions:
 - a. Click **Show Hardware ID** to obtain the Hardware ID, and then order the license file.
 - b. Install the received file.

SmartPTT Express Configurator						— C		
System Configuration				<u></u>	¢>	¢-		
Licenses	licenses							
System Parameters	LICENSES							
► Users	License ID:							
▶ Lavouts	Company Name:							~
	Software Upgrade Support Expiration Date:		Hardware ID					
			4C61-B5C0-38BB	8B45-883	A-AF23-F	F77-FDF6		Сору
	License	Quantity S						
					٨			Close
	Install License Show Hardware							
							F?	

- 3. On the left pane, click **System Parameters**, and then perform the following actions:
 - a. In the **System Roles** area, select user groups for the remaining system roles.

Digital Audio Recording	System Roles	Local authorization
Location Service		
	Administrator Group	Supervisor Group
SCADA	SmartPTT Express Administrators	SmartPTT Express Supervisors
Bridges		
	Operator Group	Privileged Operator Group
Text Messaging Service	SmartPTT Express Operators	SmartPTT Express Privileged Operators

b. In the **Server Parameters** area, type the SmartPTT Express Server IP address that will be used for communication with SmartPTT Express Client.

Configuring SmartPTT Express Server

đ	SmartPTT Express Configurator								
Sj	stem Configuration								
	Licenses	System Parameters							
	System Parameters								
۲	Consoles	Name SmartPTT Express							
۲	Users								
۲	Conventional Systems	Play alarm tone on emergency calls	60						
۲	DIMETRA Systems	Prevent dispatch interrupting							
۲	Layouts								

4. On the left pane, expand the **Consoles** tab, and then add and configure dispatch consoles.

SmartPTT Express Configurator					
System Configuration		<u></u>	¢	¢ ⊱	
Licenses System Parameters Consoles Notational Add new Add new	Console Parameters Host Name hostname Dispatch Position Name Dispatcher				
					2

5. Expand the **Users** tab, and then add users whose names must be equal to Windows user names belonging to the groups configured for SmartPTT Express user roles.

Configuring SmartPTT Express Server

SmartPTT Express Configurator			$-\Box \times$
System Configuration		🚎 🛟	¢ 🗎
Licenses	User Parameters		
System Parameters			
▶ Consoles	Name User 1		
Search Q	Resource Access List	Show Selected Resources	
User 1 X	Name		
User 2 X	✓ TG_1000	1000 Talk Group	
User 3 X	✓ TG_1111	1111 Talk Group	
Add new	Private Call	Private Call	
 Conventional Systems 	Analog-1	Radio Resource	
 DIMETRA Systems 			
▶ Layouts			
Digital Audio Recording			
			2

6. If the installed license includes SmartPTT Express SCADA integration, on the left pane, click **SCADA** and enter the URL address of SmartPTT Express SCADA GUI.

- 1. Expand the **DIMETRA Systems** tab, and then click **Add new**.
- 2. In the **Radio System Parameters** area, enter DIMETRA Express IP address.

đ	SmartPTT Express Configurator								
S	ystem Configuration					<u></u>	¢	¢	
	Licenses	General			Private Calls				
	System Parameters	Radio	System Pa	rameters		Advanced			
۲	Consoles	DIMETRA	Express						
۲	Users	Name							
۲	Conventional Systems	DIMETR	A Express						
•	DIMETRA Systems	DIMETRA	IP Address		Local Server IP Address				
	DIMETRA Express $ imes$	192.16	8.37.19		192.168.37.16				

3. If voice dispatch is required and licensed, in the **Voice Dispatch Parameters** area, perform the following actions:

đ	SmartPTT Express Configurator							—	$\Box \times$
Sj	ystem Configuration						¢	¢-	
	Licenses	General			Private Calls				
	System Parameters	Voice	Dispatch P	arameters		Advanced			
۲	Consoles	🔽 Enat	ole Voice Dispatch	h					
×	Users								
۲	Conventional Systems	DIMETRA 7101	DCS Port						
•	DIMETRA Systems								
	DIMETRA Express $ imes$	DIMETRA	Audio IP Addres same as DIMETRA	ss IP Address	DIMETRA Audio Port				
Þ	Layouts	192.168	3.37.19		58301				
	Digital Audio Recording	Local Auc	lio IP Address						
	Location Service		e same as Local Serv	ver IP Address	Range For Audio Source Po	rt			
	SCADA	192.168	3.37.16		49152	49152			
	Bridges	Ambience	e Listening Durati	ion (s)					
	Text Messaging Service								
			DIMETRA User	Credentials					
									Ľ

- a. Select Enable Voice Dispatch.
- b. In the **DIMETRA DCS Port** field, enter 7101.
- c. Click **DIMETRA User Credentials**, and then configure DIMETRA Express user association with SmartPTT Express users.

DIMETRA User Credent	ials		×
Username	Password	Dispatchers	
Click here to add new ite	em		
user1	•••••	User 1, User 2	
user2	•••••	User 3	
		ОК	Cancel

- d. If voice logging is not required, at the bottom of the right pane, click **Sync**.
- 4. If voice logging is required and licensed, in the **Digital Audio Recording Parameters** area, perform the following actions:

ő	SmartPTT Express Configurator								—	$\Box \times \Box$
s	ystem Configuration						<u></u>	¢	¢-	
	Licenses	General			Private Calls					
	System Parameters	Digita	l Audio Re	cording Parame	eters		Advanced			
Þ	Consoles	7 F 1	I. A. J. D							
×	Users		ole Audio Record	ing						
×	Conventional Systems	DIMETRA	AIS IP Address		DIMETRA AIS Po 7101	ort				
•	DIMETRA Systems									
	DIMETRA Express $ imes$	Local IP A 192.168	ddress 3.37.17							
×	Layouts									
	Digital Audio Recording	Local Auc	lio IP Address e same as Local IP A	Address	Eirst Audio Port		Last Audio Po	rt		
	Location Service	192.168	8.37.17		61000		61000	÷		
	SCADA	Username	e For AIS		Password					
	Bridges	logger			•••					
	Text Messaging Service		Radio	IDs						
										- 2

- a. Select Enable Audio Recording.
- b. In the **Local IP Address** field, enter the IP address configured as an external voice logger in DIMETRA Express.

- c. In the **Username For AIS** and **Password** fields, enter the external voice logger username and password configured in DIMETRA Express.
- d. At the bottom of the right pane, click **Sync**.
- e. Click the **Radio IDs** button and then, in the **Radio IDs** window, select users whose transmissions must be stored in SmartPTT Express Audio Archive (if DIMETRA Express provides the records).
- 5. If radio user tracking is required and licensed, in the **Outdoor Positioning Parameters** area, perform the following actions:

đ	SmartPTT Express Configurator									
Sj	ystem Configuration						÷	- ¢	¢-	
	Licenses	General				ate Calls				
	System Parameters	Out	door Positi	oning Pa	rameters		Adv	vanced		
٠	Consoles		nabla Outdoor P	ositioning						
×	Users	<u>v</u> 1		ositioning						
۲	Conventional Systems	SSI	Passnumber	Radio IDs	SDR IP Address	SDR Port	Local IP Address	Local Port		
•	DIMETRA Systems	Click I	nere to add new ite	m						
	DIMETRA Express $ imes$	106	••••	Assign	192.168.37.16	6006	192.168.37.16	52000		
۲	Layouts									
	Digital Audio Recording									
	Location Service									
	SCADA									

- a. Select Enable Outdoor Positioning.
- b. In the table that appears, click **Click here to add new item**.
- c. In the **SSI** and **Pass Number** columns, enter the Short Data Host ID and passnumber obtained from DIMETRA Express.
- d. In the **Radio IDs** column, click **Assign** and select radio users whose location must be tracked in SmartPTT Express.
- 6. If text messaging is required and licensed, in the **Text Messaging Parameters** area, select **Enable Text Messaging**, and then for each SmartPTT Express Client user that will use text messaging, perform the following actions:

ő	SmartPTT Express Configurator									— [$\exists \times$
S	System Configuration 🔆 🤆						¢				
	Licenses	Gener	al Talkgroups			vate Calls					
	System Parameters	Tex	t Messagin	g Parameter	S		Adv	anced			
۲	Consoles		F								
۲	Users		Enable lext Messa	iging							
۲	Conventional Systems	SS	I Passnumber	SDR IP Address	SDR Port	Local IP Address	Local Port				
•	DIMETRA Systems	Clic	there to add new ite	m							
	DIMETRA Express $ imes$	107	•	192.168.37.16	6006	192.168.37.16	52001	×			
۲	Layouts										
	Digital Audio Recording										
	Location Service										
	SCADA										

- a. In the table, click **Click here to add new item**.
- b. In the entry, in the **SSI** column, enter the Short Data Host ID of the DIMETRA Express user account.
- c. In the **Pass Number** column, enter the Short Data Host passnumber.
- 7. Click the **Talkgroups** tab, and then, for each talkgroup, perform the following actions:

SmartPTT Express Configurator										
Sj	stem Configuration						<u></u>	\$	¢-	
	Licenses		Talkg	groups		rivate Calls				
	System Parameters	Talkgro	oups							
×	Consoles									
۲	Users	Number o Distribute	f availa license	ible voice c	hannel licenses: 391					
۲	Conventional Systems	Number o Distribute	f resou audio	irces availal recording (ble for audio recording: 0 capabilities					
•	DIMETRA Systems	Name	ID	Voice 🗸	Audio Recording	Text Messages 🗸	Users	1]	
	DIMETRA Express $ imes$	TG 1000	1000				llsor 1			
•	Lavouts	10_1000	1000		`		03011			
		TG_1111	1111				User 2, User 3			
	Digital Audio Recording	TG_2222	2222				User 2			
	Location Service	TG_3333	3333				User 3			
	SCADA	TG_4444	4444				User 1			
	Bridges	TG_5555	5555				User 1			
	Text Messaging Service	TG 6666	6666				User 1, User 2			
										2

- a. In the **Voice** column, select the check box to make the talkgroup available for voice dispatch.
- b. In the **Audio Recording** column, select the check box to record group calls (if they are provided by DIMETRA Express).
- c. In the **Text Messages** column, select the check box to enable dispatchers to send and receive group text messages.
- d. In the **Users** column, select SmartPTT Express Client users who will have access to the talkgroup.
- 8. If your system includes donor radios connected to DIMETRA Express via CCGW radio gateway, click the **Radio Resources** tab, and then for each donor radio perform the following actions:

ď	SmartPTT Express Configurator								_ [$\exists \times$
Sj	ystem Configuration							¢	¢-	
	Licenses			Radio Resources	Private Calls					
	System Parameters	Radio	Resources							
•	Consoles									
۲	Users	Number o Distribute	f available voice licenses	channel licenses: 391						
۲	Conventional Systems	Number o Distribute	f resources avail audio recording	able for audio recording capabilities	: 3					
•	DIMETRA Systems	Name	Voice	Audio Recording	Receive Only	Users				
	DIMETRA Express $ imes$	Applog2				obcib	~			
٠	Layouts	Analog1	×	× C			~			
	Digital Audio Recording	Analogi	~	~			~			
	Location Service									
	SCADA									
	Bridges									
	Text Messaging Service									
										2

- a. In the **Voice** column, select the check box to make the radio available for voice dispatching in SmartPTT Express.
- b. In the **Audio Recording** column, select the check box to record the radio's calls.
- c. (Optional) If necessary to have the donor radio route voice transmissions only from, but not to its radio system, select the check box in the **Receive Only** column.
- d. In the **Users** column, click the cell and then select users that will have access to the resource.
- 9. If voice logging is required and licensed, on the left pane, click the **Digital Audio Recording** tab, and then configure audio archive settings.

00	SmartPTT Express Configurator			_ [$\exists \times$
S	ystem Configuration		 ¢	¢ ⊦	
	Licenses	Digital Audio Recording Parameters			
	System Parameters				
×	Consoles	Retention Period (Months)			
Þ	Users				
×	Conventional Systems	Overflow Policy Replace Oldest			
×	DIMETRA Systems	Audio Archive Size			
×	Layouts	Depends on free disk space			
	Digital Audio Recording	Fixed size (MB)			
	Location Service				
	SCADA				
	Bridges				
	Text Messaging Service				
					2

- 10. If radio user tracking is required and licensed, on the left pane, click the **Location Service** tab and complete the location service configuration:
 - a. From the **Type** list, select the desired map type.
 - b. In the **URL** field, enter the URL address of the HTTP/HTTPS map service or path to the map stored as files.
 - c. For HTTP-based maps, if the map server requires authentication, enter **Login** and **Password**.
 - d. Set the retention period for user coordinates in SmartPTT Express database.
- 11. On the Toolbar, click **Save Configuration**

Configuring Analog Conventional System Interconnect

Configuring Analog Conventional System Interconnect

- 1. Expand the **Conventional Systems** tab, and then click **Add new**.
- 2. For each donor radio to be connected, perform the following actions:
 - a. On the right pane, click the Radio Resources tab.

ď	SmartPTT Express Configurator							[
s	ystem Configuration						¢	¢	
	Licenses		Radio Resources						
	System Parameters	Radio	Resources			Advanced			
۲	Consoles								
۲	Users	Number o Distribute	f available voice channe licenses	l licenses: 387					
	Conventional Systems	Name	Radio GW IP Address	Radio GW Port	Voice 🗸	Audio Recording	Receiv		
	Q Search	Click here	to add new item						
	RG-1000e X	Analog-1	192.168.37.1	30011					
C	Add new	TETRA-1	192.168.37.1	30012					
۲	DIMETRA Systems	Analog-2	192.168.37.2	30021					
	Layouts	TETRA-2	192.168.37.2	30022					
	Digital Audio Recording								
	Location Service								
	SCADA								
									5

- b. At the top of the **Radio Resources** table, click **Click here to add new item** to add a new entry.
- c. In the Radio GW IP Address column, type the RG-1000e IP address.
- d. In the **Radio GW Port** column, type the port number assigned to this donor radio.
- e. If necessary to only have the donor radio route voice from, but not to its radio system, select the check box in the **Receive Only** column.
- f. In the rightmost column, click **OK**.

- **NOTICE:** Any number of donor radios can be added under the same conventional system (limited by the installed license), regardless of which RG-1000e gateway they are connected to. Each donor radio must have a unique combination of IP address and port number.
- 3. Configure bridges between donor radios:
 - a. On the left pane, click the **Bridges** tab.

4	SmartPTT Express Configurator					_ [$\exists \times$
S	System Configuration						
	Licenses	Bridges					
	System Parameters						
	Consoles	Name	Assigned Resources				
	Users	Click here to add new item					
Þ	Conventional Systems	Bridge-1	Analog-1, TETRA-2	Assign			
	DIMETRA Systems						
	Layouts						
	Digital Audio Recording						
	Location Service						
	SCADA						
	Bridges						
	Text Messaging Service						
							Ľ

- b. At the top of the **Bridges** table, click **Click here to add new item** to add a new entry.
- c. In the Assigned Resources column, click Assign.
- d. In the **Resources** window, select the donor radios to be bridged, then click **OK**.
- e. In the rightmost column of the **Bridges** table, click **OK**.
- 4. On the Toolbar, click **Save Configuration ■**.

After Configuration

- Add SmartPTT Express executable (.exe) files to the ignore list of your antivirus software.
- On the SmartPTT Express Server computer, in its firewall software, unlock TCP and UDP traffic for network ports used in SmartPTT Express.
- On each dispatch console computer, in its firewall software, unlock traffic for a TCP and a UDP port

Contact Information

To contact SmartPTT Express support engineer, use the following information:

Email address	support@smartptt.com
Request support online	https://support.smartptt.com/hc/en- us/requests/new
Phone/fax number	+7 38-22 522-511

By default, phone calls are answered by a Russian-speaking operator. If required, ask the operator to redirect your call to an English-speaking operator.