

SmartPTT Express 2.6

Installation and Configuration Guide



Revision History

REVISION 9 (AUGUST 2023)

Update for SmartPTT Express 2.6.

- Added: subsections of the section [Features](#) on page 21, [RG-2000 Configuration](#) on page 42, [Map Server Authentication](#) on page 56, [Configuring Secondary Express Server](#) on page 96, [Resource Access](#) on page 134 and its subsections.
- Modified: document design and formatting, multiple section titles, multiple procedures.
- Removed: Integration with SmartPTT Express SCADA.

Also, implemented miscellaneous grammar and word choice enhancements.

REVISION 8 (DECEMBER 2021)

Update for SmartPTT Express 2.5.2.

- Modified: [Antivirus & Firewall Configuration](#) on page 52, [DIMETRA Express Configuration](#) on page 34
- Removed: Switching to Redundant DIMETRA Express Connection

Also, minor improvements are incorporated.

REVISION 7 (MARCH 2021)

Update for SmartPTT Express 2.5.1.

Minor readability improvements are incorporated.

OTHER REVISIONS

- Revision 6 (August 2020): Update for SmartPTT Express 2.5.
- Revision 5 (April 2020): Update for SmartPTT Express 2.4.
- Revision 4 (February 2020): Update for SmartPT Express 2.3.
- Revision 3 (October 2019): Update for SmartPT Express 2.2.
- Revision 2 (June 2019): Update for SmartPTT Express 2.1.
- Revision 1 (March 2019): Initial release of the document, for SmartPTT Express 2.0.



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Glossary

Terms and definitions specific to this document.

CALL ID

GSSI or ISSI that is a direct target of the voice/data call. In the case of voice call or TMS from ISSI = 101 to GSSI = 101, GSSI = 101 is a Call ID.

CALLER ID

ISSI that initiates a voice/data call. In the case of voice call or TMS from ISSI = 101 to GSSI = 101, ISSI = 101 is a Caller ID.

DIMETRA CONSOLE USER

User whose account is created and configured in DIMETRA Express as an API-type console user. Can be referred to as “DIMETRA user”. Do not confuse the term with “radio user” or “SmartPTT Express Client user”.

DISPATCH CONSOLE

Computer-based device used to install and host SmartPTT Express Client.

GROUP SHORT SUBSCRIBER IDENTITY (GSSI)

Unique identifier of a talkgroup in DIMETRA Express.

INDIVIDUAL SHORT SUBSCRIBER IDENTITY (ISSI)

Unique identifier of radio subscriber and/or operator in DIMETRA Express.

PARALLEL CALL

Voice and/or data call where person's ISSI is not represented as a Call ID or Caller ID.

RADIO USER

User whose account is created and configured in DIMETRA Express as a user of a mobile/portable radio. Can be referred to as "subscriber" or "DIMETRA radio user". Uniquely identified with ISSI.

RETENTION POLICY

Rules of information management in limited-size storage when its maximum size is reached.

SMARTPTT EXPRESS CLIENT USER

User whose account is authenticated by SmartPTT Server and associated with a DIMETRA console user account.

TEXT MESSAGING SERVICE (TMS)

Technology and implementation-agnostic name for the text messaging functionality as well as that for text messages themselves. The use of this term is the same as the use of the "SMS" term.

TRANSMISSION

Continuous voice/data stream over a radio channel. Can be interrupted by another transmission.

VOICE CALL

Series of voice transmissions where at least one party does not change. Can be interrupted by another transmission or call.

USER ID

Unique personal identifier of a DIMETRA user. Can be referred to as “individual short subscriber identity” (ISSI). Includes Radio IDs and Console User IDs.



About

The document explains how to install and configure SmartPTT Express, a client-server dispatch software for DIMETRA Express. It informs system administrators about the necessary configuration changes in the computer operating system and provides brief information on how to maintain the software.

CONVENTIONS

The document uses the following conventions:

Convention	Example
Named user interface elements	the Save button
Values and expandable list items	the <i>Always</i> option
File names/paths or strings that must be typed exactly as given	type <code>net start "SmartPTT Server"</code>
Hyperlinks	https://smartptt.com/products/smartptt-express/
Cross-references	See Glossary on page 12.
Other documents	<i>SmartPTT Express User Guide</i>

The document assumes the following:

- Customer hardware, software, and network equipment can be properly configured by the system administrator who has his/her own approach to operating system configuration.
- DIMETRA Express has been properly configured as a radio system or can be properly configured by the Customer-assigned engineer.

RELATED INFORMATION

The document does not cover another product configurations until it is explicitly required. In such cases, a reference to other manuals is provided with information on what must be done.

SMARTPTT EXPRESS DOCUMENTATION

Information about SmartPTT Express Client configuration and operation is available in *SmartPTT Express User Guide*. *SmartPTT Express Quick Start Guide* provides a brief overview of SmartPTT Express installation and configuration. **RG-1000e Configuration for SmartPTT Express** provides instructions on configuring RG-1000e radio gateway for use with SmartPTT Express.

MOTOROLA SOLUTIONS DOCUMENTATION

This document refers to the following Motorola Solutions resources:

- DIMETRA Express Maintenance Guide (must be received from Motorola Solutions).
- DIMETRA Express embedded help (available in DIMETRA Network Manager).

WINDOWS ADMINISTRATOR NOTES

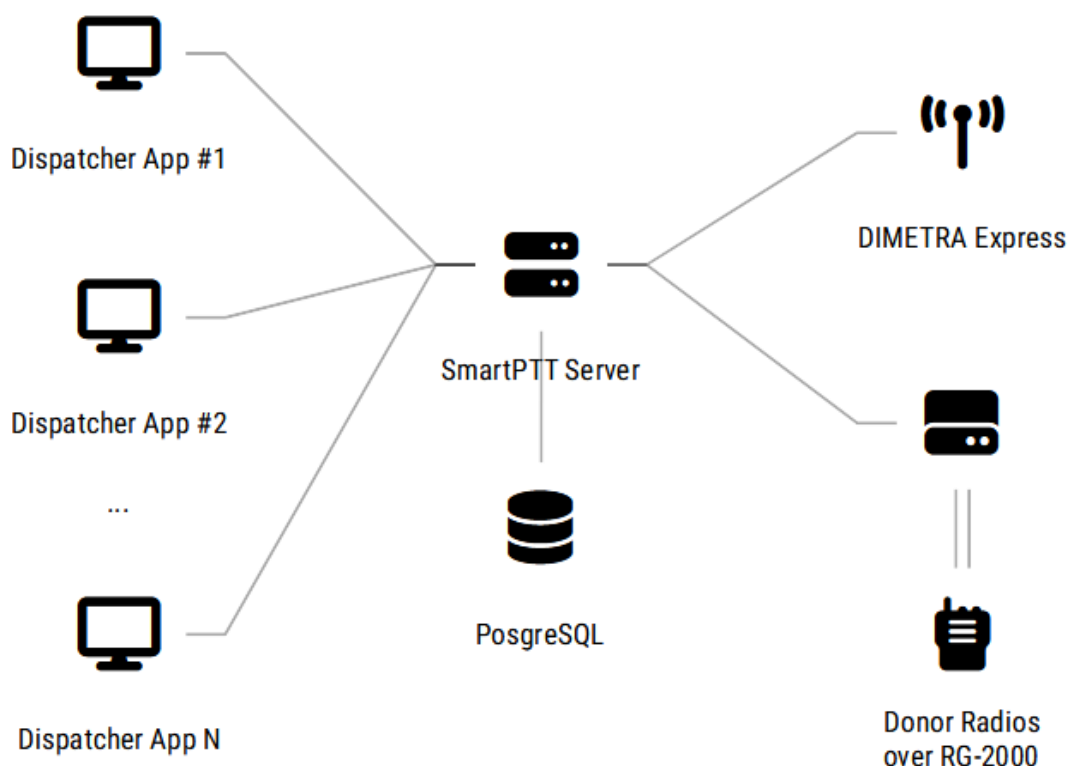
The following references are provided for Customer's system administrator for purposes of quick configuration overview:

- Authorization
(<https://docs.microsoft.com/en-us/windows/desktop/secauthz/authorization-portal>)
- Managing Groups
(<https://docs.microsoft.com/en-us/windows/desktop/ad/managing-groups>)
- Managing Users
(<https://docs.microsoft.com/en-us/windows/desktop/ad/managing-users>)
- Power Management
(<https://docs.microsoft.com/en-us/windows/desktop/power/power-management-portal>)
- Windows Time Service
(<https://docs.microsoft.com/en-us/windows-server/networking/windows-time-service/windows-time-service-top>)

Chapter 1: Overview

SmartPTT Express is a voice-and-data dispatch software for DIMETRA™ Express and analog radio systems. It offers basic dispatch functionality with penultimate flexibility making it suitable for heavy industries (manufacturing, Oil and Gas) where DIMETRA systems are applicable.

High-Level Diagram of the SmartPTT Express



SmartPTT is intended to be used with DIMETRA Express, a TETRA-compliant radio system from Motorola Solutions. It is intended for small-size and medium-size solutions with approximate capacity/performance of 20 RF sites, 140 communication channels, 10,000 of groups and/or

subscribers. For exact and detailed DIMETRA Express specifications, refer to the “Capacity” section in *DIMETRA Express System Planner*. Other information on DIMETRA Express, is available at the [following link](#).

1.1 COMPONENTS

SmartPTT Express includes the following components:

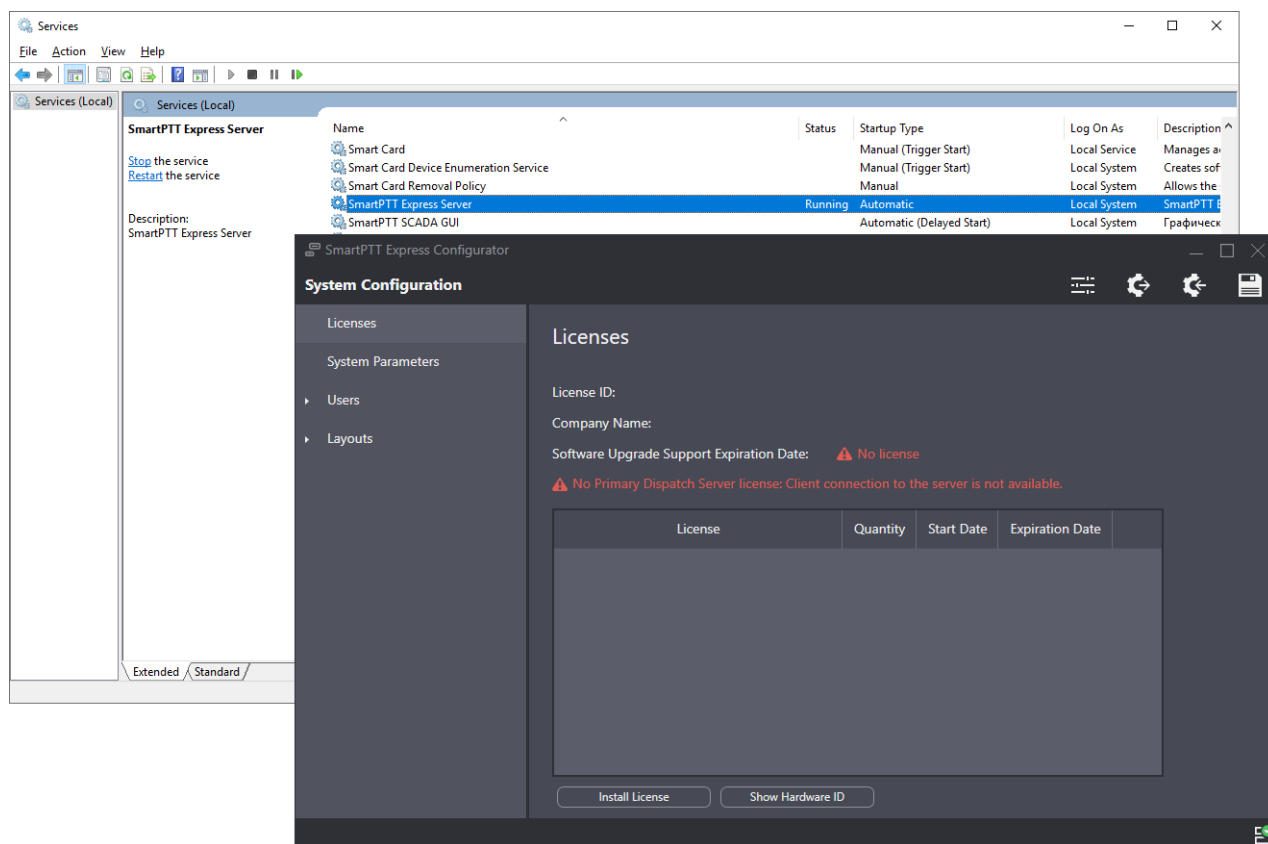
- SmartPTT Server,
- SmartPTT Configurator,
- SmartPTT Dispatcher App.

An overview of those components is available below.

1.1.1 SMARTPTT SERVER & CONFIGURATOR

SmartPTT Server is the software’s server component. It provides access to DIMETRA Express radio users and talkgroups. On the computer, it appears as a Windows service named SmartPTT Server.

SmartPTT Server Service and the Configurator UI

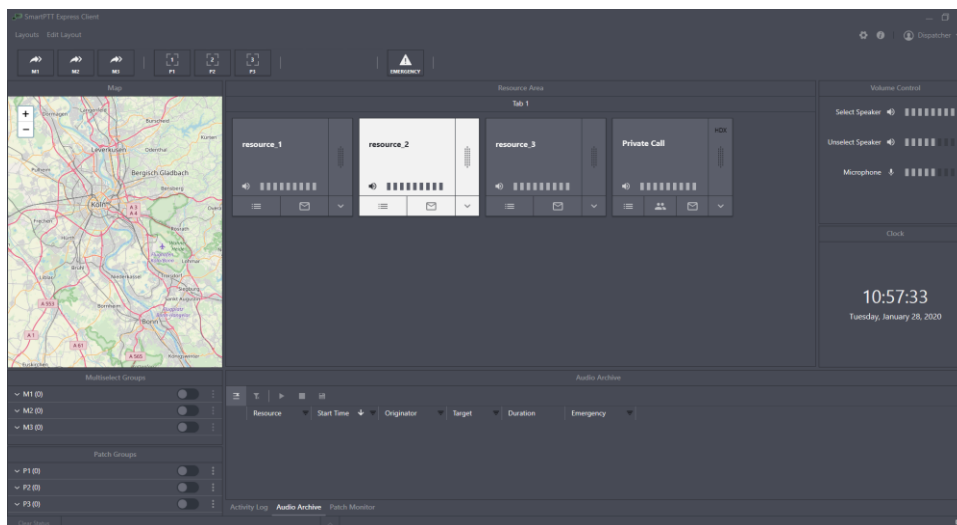


Most SmartPTT Express settings can be modified with the SmartPTT Express Configurator application. It is a GUI-based Windows application that accesses SmartPTT Express settings. It provides input validation, export and import of configuration settings, license management, and saves changes.

1.1.2 SMARTPTT EXPRESS CLIENT

SmartPTT Express Client is dispatch console software that provides dispatch features using a graphical user interface as well as audible and visual event indication.

Example of the Console UI



SmartPTT Express Client requires a continuous connection to SmartPTT Server. If the connection is lost and cannot be reestablished within 5 seconds, SmartPTT Express Client logs off the user to prevent data desynchronization.

1.1.3 DEPENDENCIES

SmartPTT Express installation file includes the necessary versions of Microsoft .NET Framework, Visual C++ Redistributable package, and PostgreSQL. They are installed automatically if required.

SmartPTT Express includes software packages covered by open-source licenses. All such software is listed on the dedicated list of Open Source Software.

1.2 FEATURES

SmartPTT Express provides multiple features.

DISPATCH FEATURES

- Access to DIMETRA radio users and talkgroups over DIMETRA Express.
- Access to any radio systems over RG-1000e or CCGW gateway (4-wire E&M connection).
- Incoming and outgoing group calls (Group PTT).
- System-wide call.
- Call party identification.
- Half-duplex and full-duplex private calls (individual calls).
- Ambience listening (remote monitor).
- Various transmit priorities: General Transmit, Instant Transmit, All-Points Bulletin (APB) Transmit.
- Single & multiple talkgroup selection.
- Incoming emergency alarms and emergency calls.
- Patching among talkgroups and donor radios connected via CCGW radio gateway.
- Voice logging, records playback, and export to audio files.
- Receiving radio user coordinates from DIMETRA Express.
- Showing radio user locations on a map in OpenStreetMap format (accessed via HTTP protocol or stored as files).
- Showing radio user location history (tracks).
- Additional positioning information (latitude, longitude, speed, direction, and more).
- Text messaging (group and individual messages; short and long data format).

- Bridges between donor radios connected via RG-1000e radio gateway.
- Incoming Radio Status support.

USER FEATURES

- Talkgroup-centric design.
- System and per-call volume control.
- Console activity log and call log.
- Contact list for private calls.
- Built-in voice record player.
- Workplace/layout customization: buttons, panels, tabs, and tiles.
- Multilingual user interface.

DISPATCH AND AUDIO ACCESSORIES

The product is compatible with the accessories listed below:

- Footswitch FS22A-JSB by Kinesis
- Imtradex TM-2
- Imtradex PTT13-USB PTX-QD
- Peitel PS12 (pei tel PTC USB)
- Plantronics C310-M
- Plantronics C320-M
- XK-3 Switch Interface Thumb

- PTT Headset Adapter
- Kinesis JoyStick Controller

ADMINISTRATION FEATURES

- Configuration backup and restore.
- Backing up and restoring audio archive and GNSS data.
- Flexible role model with editable permissions.
- Centralized layout storage and loading.
- Runtime application of configuration changes.
- SmartPTT Express requires licenses to unlock features. To order licenses, contact representatives of Elcomplus, Inc. in your region.

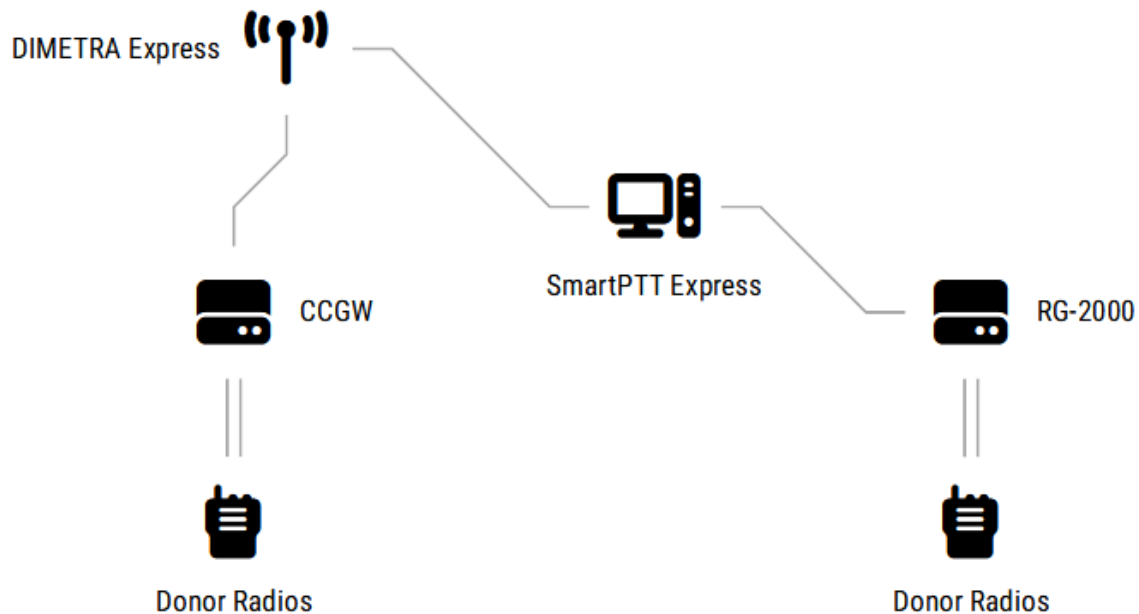
1.2.1 ANALOG RADIO RESOURCES

Analog radio resource is a representation of base/control station that provides functionality reduced to that available in analog radio systems. Basically, it means voice transmissions only.

SmartPTT Express support analog radio resources connected in the following ways:

- Base/control stations accessible over Motorola's Conventional Channel Gateway devices.
- Base/control stations accessible over RG-2000/RG-1000E devices.

Topology Behind Analog Resources



Details on those resources types is available below.

CONVENTIONAL CHANNEL GATEWAY (CCGW) RESOURCES

CCGW is a device from Motorola Solutions. It is intended to integrate analog systems directly into DIMETRA Express. For an exact list of its capabilities, contact Motorola Solutions.


For SmartPTT Express, CCGW resources are the dedicated type of resources that are loaded from DIMETRA Express. SmartPTT users can receive voice from those resources, transmit to them, patch them with each other and DIMETRA talkgroups, and record their voice transmissions.

RG-2000 AND RG-1000E RESOURCES

RG-2000 and RG-1000E are hardware devices from Elcomplus, Inc. RG-2000 is a new device that replaces RG-1000E for new sales. RG-1000E is now out of stock and will not be sold anymore.

RG-2000 offers a four-wire interface to base/control stations for voice receive and transmit. The interface allows voice receive and transmit, but lacks signaling and data. So, many features (like Call and Caller IDs, Emergency, radio commands, GPS, etc.) will not work. However, with that interface you can access analog systems, DMR, P25, and TETRA systems from other manufacturers.

For SmartPTT Express, RG-2000 resources are the dedicated type of resources that is configured separately. SmartPTT users can receive voice from those resources, transmit to them, interconnect them with each other (using the Bridging functionality), and record their voice.

 You cannot patch resources connected over CCGW and RG-2000 resources.

1.2.2 PATCHING AND BRIDGING

Patching and bridging are voice integration functionalities in SmartPTT Express. They are explained below.

PATCHING

Basically, patching is a retransmit of voice transmissions in the radio network to other groups/subscribers/channels or even other radio systems. For example, voice call to Group 1 is retransmitted to Group 2 and/or an analog radio resource.

In DIMETRA Express, patching is implemented in the Express Server. SmartPTT uses DIMETRA API to control patched resources as well as turn on/off patch groups. This provides easy integration of digital resources with analog radio resources connected over CCGW.

DIMETRA supports the ability to route original Caller IDs for patched resources. If turned off, subscribers will receive a retransmitted voice as if it is initiated by operators who activated a

patch. However, you can configure DIMETRA in the way it will include the Caller ID into the retransmitting traffic. As a result, everyone will see a retransmitted voice as if it comes from that caller.

Operators manage patches from the Console, if corresponding capabilities are provided for them in the available layouts. Additionally, Supervisors and Administrators may observe all active patches in DIMETRA via the Patch Monitor panel. If required, they can turn off any patch using controls in that panel.

DIMETRA limits the number of patches that users can create as well as it limits number of resources that can be added there. For updated information, see *DIMETRA Express System Planner*.

BRIDGING

Bridging is a SmartPTT term for voice call retransmission between analog radio resources connected over RG-2000 and/or RG-1000E. Different name comes from the different setup implementation. Bridges are created in the Configurator, and Supervisors/Administrators turn them on/off from their Consoles. No bridge can be edited from the Console.

Bridge capacity is limited by 16 radio resources.

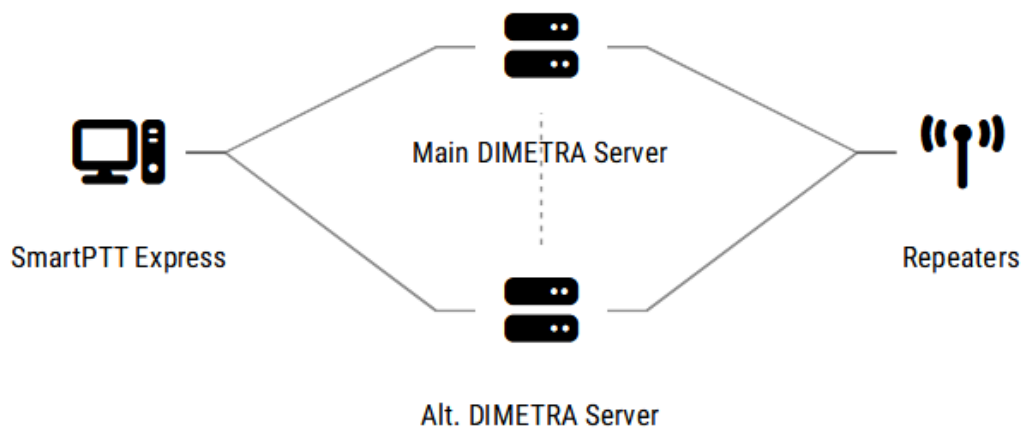
Bridging is a licensed functionality of SmartPTT Express. It requires the Radio System Interconnect licenses, one for each bridge.

1.2.3 SECONDARY EXPRESS SERVER

SmartPTT Express supports the work with Secondary Express Servers in DIMETRA Express.

Secondary servers are alternate/redundant for primary (main) DIMETRA servers. They work in the “warm standby” mode.

High-Level Diagram of DIMETRA Server Redundancy



If SmartPTT Express loses connection to the primary Express Server, it initiates connection to the Secondary Express Server. In parallel, it keeps checking interface to the Primary Express Server. Depending on which interface responds first, SmartPTT Express establishes connection with the corresponding Express Server.

SmartPTT Express switches between main and alternate DIMETRA servers within 180 seconds.

This limitation is related to the radio system.

1.2.4 RG-2000E SUPPORT

RG-2000 is a new hardware gateway that replaces outdated and non-manufactured RG-1000E. For SmartPTT Express the device provides the same functionality as for RG-1000E that include voice receive, voice transmit, and static patching of DIMETRA resources with analog radio resources.

Front Panel of RG-200



Back Panel of RG-2000



SmartPTT Express supports RG-2000E operated in the RG-1000E compatibility mode only. Additionally, it supports donor radios connected to the gateway only using a four-wire interface. Work with RG-2000 is a licensed functionality of SmartPTT Express. It requires the Wireless Gateway licenses, one for each donor radio connection.

1.3 CAPACITY AND PERFORMANCE

SmartPTT Express provides the following capacity:

- One DIMETRA Express system with optional Secondary Express Server.
- Up to 120 talkgroups; up to 60 talkgroups per dispatch console.

- Up to 10 simultaneous full-duplex and/or half-duplex private calls (one private call per dispatch console).
- Up to 11 multiselect groups (1 active at a time); each may include up to 16 talkgroups.
- Up to 11 patch groups that can be active simultaneously; each group may include up to 16 talkgroups.
- Up to 100 dispatch consoles, 10 of which can initiate and receive voice calls (limited by DIMETRA Express).

1.4 SYSTEM REQUIREMENTS

SmartPTT Express states certain requirements to be satisfied to install, configure, and use it as a dispatch software. This includes hardware requirements, software requirements, networking requirements and audio accessory requirements. These are given in the following sections of the document.

1.4.1 HARDWARE REQUIREMENTS

Computer hardware intended to host SmartPTT Express software must comply with the minimum requirements provided in [Table 1](#).


 SmartPTT Express is not intended to be used in the virtual environment.


Table 1: Hardware Requirements

Parameter	Value
Processor	dual-core processor with 3.4 GHz clock frequency

	quad-core processor with 4.1 GHz clock frequency with SmartPTT Express SCADA and DBMS installed on the same computer
	Multithread: Required
Memory	8 GB 16 GB with SmartPTT Express SCADA and DBMS installed on the same computer
Disk	Space: 256 GB and more 512 GB and more with SmartPTT Express SCADA and DBMS installed on the same computer
	Read/write speed: 600 MB/s SSD/EFD with SmartPTT Express SCADA and DBMS installed on the same computer
Audio (SmartPTT Express Client hosts only)	High-definition 2.0 audio
Graphics (SmartPTT Express Client hosts only)	GDDR5 with 2 GB memory
Monitor	Display Size: 19" and more Screen Resolution: 1280×1200 px and more
LAN	10/100/1000 Base T
I/O Ports	1 video output

	2-channel audio output (SmartPTT Express Client hosts only)
	1 microphone input (SmartPTT Express Client hosts only)
	1 keyboard input, and/or 1 mouse input, and/or touchscreen

For better performance, Solid State Drives (SSD) or Enterprise Flash Drives (EFD) are recommended instead of Hard Disk Drives (HDD).

 Hardware specifications above have proven sufficient under testing conditions. However, with a larger radio system they may not be enough.

For details on the software operation under the Customer’s workload, contact Elcomplus, Inc. representative in your region.

1.4.2 SOFTWARE REQUIREMENTS

SmartPTT Express is a Windows-only software. Customer’s operating system and database management system (DBMS) must comply with the requirements provided in [Table 2](#).

Table 2: Operating System and DBMS Requirements

Parameter	Value
OS Editions	Windows 10 Pro, version 1803 and 1809
	Windows 10 Enterprise, version 1803 and 1809
	Windows 10 Enterprise LTSC 2016
	Windows Server 2016

	Windows Server 2019
OS Type	64-bit
DBMS Version	PostgreSQL 12.X

For more information on LTSC versions of Windows 10, see <https://docs.microsoft.com/en-us/windows/whats-new/ltsc/>.

1.4.3 NETWORKING REQUIREMENTS

When SmartPTT Express is configured and operable, the network it uses must comply with the requirements provided below:

- Supported IP address type is IPv4 only.
- Maximum packet loss is 1%.
- Maximum two-way delay is 150 msec.
- Maximum jitter is 100 msec.

Requirements above must be valid for the loaded system.

1.4.4 RADIO SYSTEM COMPATIBILITY

SmartPTT Express supports DIMETRA™ Express 1.2, 1.3, 1.5, 1.7, and 2.0 radio systems.

Non-DIMETRA radio system might be accessed with RG-2000, RG-1000E or Conventional Channel Gateways (CCGW).

For details on RG-1000e, see <https://smartptt.com/products/smartptt-rg-1000e/>; for details on CCGW, contact Motorola Solutions representative in your region.



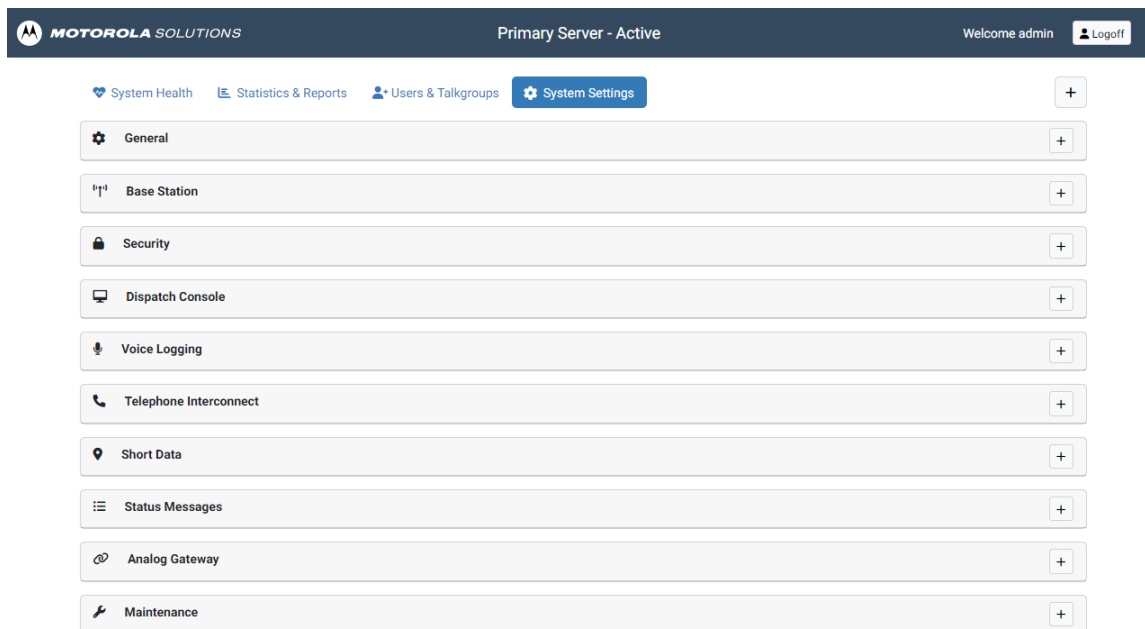
Chapter 2: Preparations

Customer infrastructure that complies with SmartPTT Express system requirements must be properly configured. This chapter provides information on both necessary and recommended configurations.

2.1 DIMETRA EXPRESS CONFIGURATION

Configuration of Primary (and Secondary, if required) Express Servers is made with DIMETRA Network Manager. This is a web-based configuration tool that provides access to setup and basic monitoring options inside DIMETRA.

Example of DIMETRA Network Manager UI



The tool has embedded help that provides necessary information on parameters and their meaning.

2.1.1 DIMETRA LICENSES

Depending on SmartPTT Express destination, DIMETRA Express shall have different set of its own licenses. Description of relevant licenses is presented below:

- **DIMETRA Express Core (required):** Core license of DIMETRA.
- **Dispatch Console Position (required):** Determines amount of active SmartPTT Dispatch Consoles. Required for both voice dispatch and voice recording.
- **Voice Logging Capacity (optional):** Determines amount of concurrent voice calls that SmartPTT Express will be able to record.
- **Radio User (required):** Determines amount of radio subscribers **and dispatchers** since they allocate Radio IDs.
- **Analog Gateway Channel (optional):** Determines amount of donor radios connected to DIMETRA Express via CCGW (conventional radio gateway).


Use of RG-2000 and RG-1000E does not require DIMETRA licenses.

2.1.2 RADIO USERS AND TALKGROUPS

The following configuration actions are required for the system as a whole or certain SmartPTT Express features to work correctly:

- Each radio user and talkgroup must be assigned a unique ID. The ID pool is shared between talkgroups, radio users, dispatch consoles and Short Data Hosts.

- To support location service and text messaging, **Short Data** must be enabled for the desired radio users.
- To support patching, the desired talkgroups must have the **Patch Capable** parameter enabled.
- Radio and talkgroup aliases must comply with the following requirements:
 - 1..16 UTF-8 characters (non-Latin characters are disallowed).
 - The first character must be a letter or a numeral.
 - The following characters are not allowed: ! @ _ " " & % \$

 It is also recommended to enable the **Talkgroup Regroupable** parameter. DIMETRA Express will interpret transmissions routed via patch groups to talkgroups with this parameter disabled as originating from the dispatch console.

2.1.3 DISPATCH CONSOLES

The following configuration actions are required for using voice dispatch features in SmartPTT Express:

- Dispatch console type must be set to **Express Console (API)**.
- IP address of SmartPTT Server host must be added to the console client list. SmartPTT Express Client IP addresses do not need to be specified anywhere in DIMETRA Express settings.
- Dispatch console user accounts must be added. The maximum number of these is limited by the **Dispatch Console Position** license. Multiple SmartPTT Express user accounts can


be assigned to a single DIMETRA Express account, but only one of them can be logged on simultaneously.

- If you intend to use the Ambience Listening feature, enable it for the desired console user accounts.

2.1.4 VOICE LOGGING

The following configuration actions are required for using SmartPTT Express as an external voice logger:

- Logging client IP address and Corba TCP port number must be configured and provided to the person who will configure SmartPTT Express.
- Voice logger credentials must be configured and provided to the person who will configure SmartPTT Express.

 If you are not using the Voice Logging feature, do not specify SmartPTT Server IP address as the external voice logger address in DIMETRA Express. This will make it impossible to use the voice dispatch functionality.

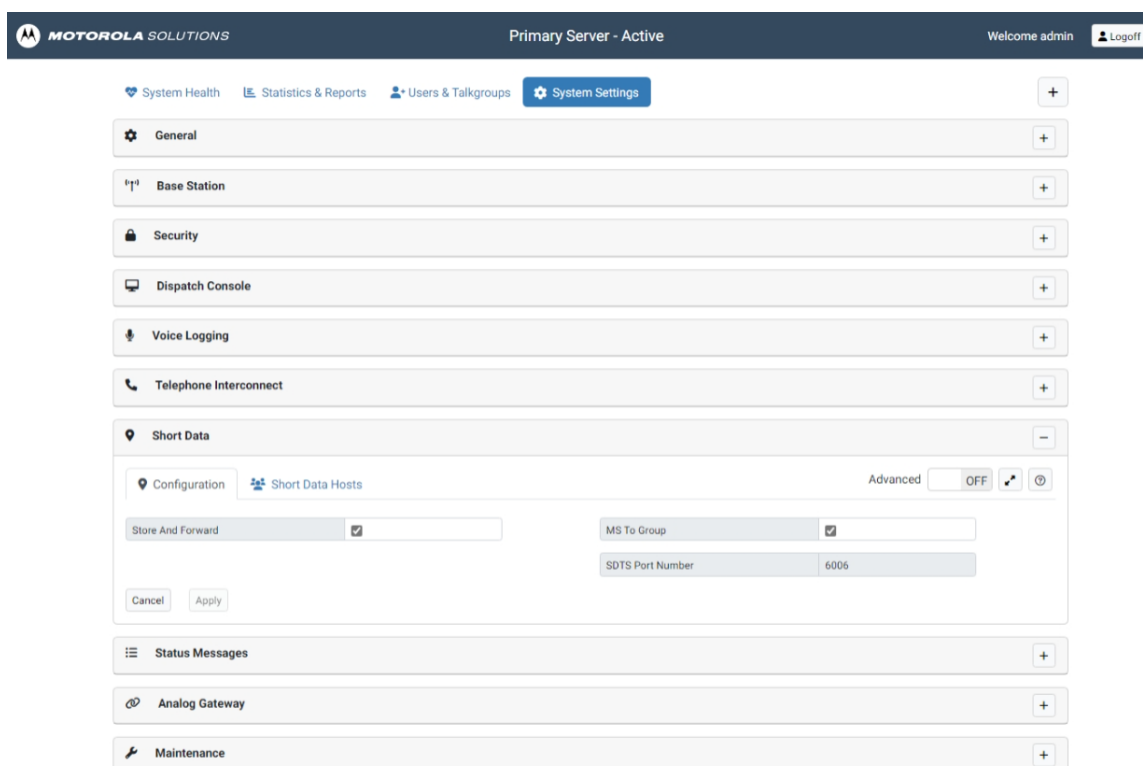
2.1.5 GPS SETTINGS IN DIMETRA

The following configuration actions are required for using location service in SmartPTT Express:

- At least one Short Data Host must be configured in DIMETRA Express. Short Data Host names and pass numbers must be provided to the person who will configure SmartPTT Express.

- Radios must be configured to provide coordinates to the configured Short Data Hosts only. No other recipients must be configured.
- Radios must be configured to provide coordinates over the Location Information Protocol (LIP). No other protocols are supported.


Relevant settings are available in the Short Data section of DIMETRA Network Manager.



For configuration details and assistance, contact Motorola Solutions.

2.1.6 TMS SETTINGS IN DIMETRA

Text message service in DIMETRA Express is implemented by means of the Short Data Transport Service (SDTS). For each dispatch console user added, a Short Data Host is automatically created with Short Data Host ID the same as the Console User ID.

 In DIMETRA Express 1.3, adding a dispatch console user may not result in the corresponding Short Data Host appearing on the SDTS Host list. It is still created, but cannot be assigned a pass number or name. To connect to such hosts, any passnumber can be used.

To configure text messaging service for a dispatch console user, the corresponding SDTS Host ID and pass number must be provided to the person who will configure SmartPTT Express.

2.1.7 CCGW CONFIGURATION

Details of the CCGW configuration must be clarified with Motorola Solutions depending on the device model and its firmware version.

CCGW resources integration into DIMETRA Express is performed using DIMETRA Network Manager (the **Analog Gateway** section).

CCGW Settings in DIMETRA Network Manager

The screenshot displays the DIMETRA Network Manager interface. At the top, the Motorola Solutions logo is on the left, and the text "Primary Server - Active" and "Welcome admin" with a "Logout" button are on the right. Below the header, there are navigation tabs: "System Health", "Statistics & Reports", "Users & Talkgroups", and "System Settings" (which is highlighted). A list of settings categories follows, each with a plus sign to expand: "General", "Base Station", "Security", "Dispatch Console", "Voice Logging", "Telephone Interconnect", "Short Data", "Status Messages", "Analog Gateway", and "Maintenance". The "Analog Gateway" section is expanded, showing a sub-section for "Analog1". This section includes a table for channel configuration and a table for gateway parameters.

Analog Gateway

Buttons: Add New Gateway, Delete

[Click here to download the expressGGM800CCGW1.cfg file](#)

« 1 »

Channel Configuration

Analog1

Buttons: Add New Channel, Delete

Analog Channel Alias	Analog1
Analog Channel Port Name	8A
Conventional Channel Priority	10

Impedance	600 OHMS
Inbound Radio Transmission	Voice
Voice Detection Threshold Adjustment	0
Voice Detection Hold Off Delay	1000

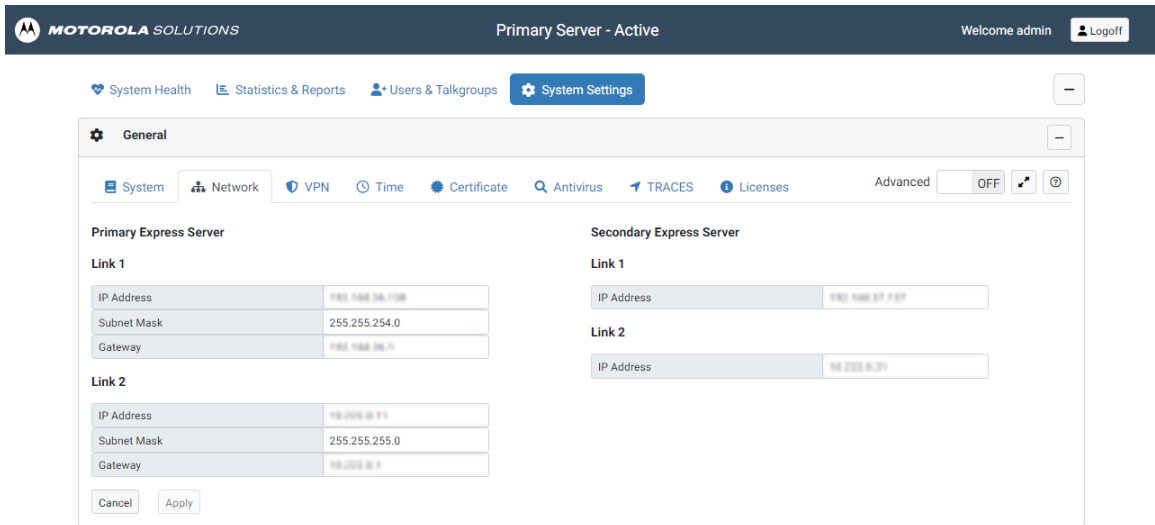
« 1 »

Buttons: Cancel, Apply

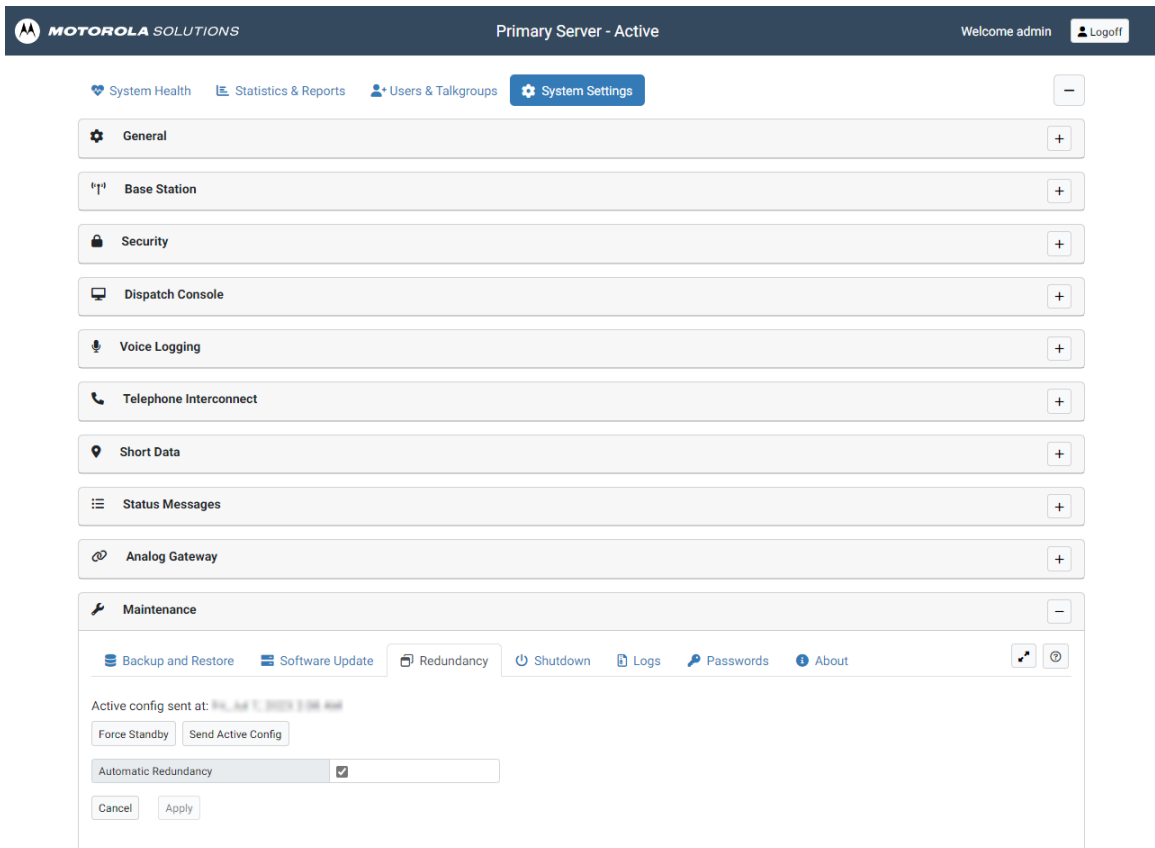
2.1.8 SECONDARY EXPRESS SERVER SETUP

To configure Secondary Express Server, you must do at least this:

- Allocate and set a static IPv4 address for the Secondary Server.
- Configure one or two IP addresses of the Secondary Express Server in the Primary Express Server. You can do that in the **General / Network** section of DIMETRA Network Manager.



- Enable automatic redundancy for the secondary server. You can do that in the same section of DIMETRA Network Manager.



For other necessary actions, please contact representatives of Motorola Solutions in your region.

Note that you will need access to DIMETRA Network Manager during the setup of the SmartPTT Server.

2.2 RG-2000 CONFIGURATION

To work with SmartPTT Express, RG-2000 should be configured in the following way:

- The device must be switched to the RG-1000E Compatibility Mode.
- The device must operate in the Client Mode and the TCP, RTP “submode”.
- The device must be aware of the dedicated Server IP address and TCP port number allocated on the Server for its connection.
- Radio channels of the device must be configured to the Radio I/O Mode.
- G711 must be selected as a voice transcoder; transcoding algorithm must be A-Law; frame size (a.k.a. packet duration) must be 20 msec.

For details on how to set up that parameters, see *RG-2000 Installation and Configuration Guide* ([link](#)).

2.3 RG-1000E CONFIGURATION

This section provides a brief overview of RG-1000e configuration required for interaction with SmartPTT Express. A more detailed description of the gateway and its CPS can be found in the following documents:

- RG-1000E Installation and Configuration Guide ([link](#)).
- RG-1000E Configuration for SmartPTT Express ([link](#)).

IP CHANNELS ASSIGNED TO RADIOS

Connection mode must be set to *Client* and *TCP, RTP*.

Gateway IP settings must be set to RG-1000e IP address, subnet mask and gateway. It is possible to use the same or different IP addresses for radios connected to the same gateway, whereas XCMP ports must be different between them.

Remote Gateway IP settings must be set to the SmartPTT Server host IP address and port number that will be used for RG-1000e connection.

RADIO SETTINGS

Radio IO mode must be selected.

G711A voice codec (*A-Law 64 kbps*) with audio packet duration of 20 msec must be used.

2.4 ADDRESSING NOTES

SmartPTT Express, DIMETRA Express and RG-1000e radio gateway support IPv4 addresses only. IPv6 is not supported.

If SmartPTT Express will be used as both dispatch and voice logging software, SmartPTT Server host must have two IP addresses simultaneously. SmartPTT Server uses the first IP address to interact with DIMETRA Express as an API-type console and the second – as an external voice logger.



SmartPTT Server and Express Servers should be in the same LAN (local area network). They do not support the connection over NAT connection.

For communication with SmartPTT Server, RG-1000e radio gateway must be assigned a static IP address. If there is a NAT gateway between the two, port forwarding must be configured. For details, contact your system administrator.

i Starting SmartPTT Express 2.6, you do not need to set up DIMETRA host names resolution on the SmartPTT Server computer. Those host names are now embedded in the product source code.

2.5 DISK SPACE MANAGEMENT

SmartPTT Express requires you to plan free disk space for the following purposes:

- Manage event logging.
- Manage voice record and location data storage.

EVENT LOGGING

SmartPTT Express uses Windows logging services to store system events information. It is necessary for troubleshooting. The log is created on the SmartPTT Server host after the corresponding SmartPTT Express component is installed. The log name is **G2 . SmartPTT System Event Log**, and it is available via the standard Windows Event Viewer on the “Applications and Services Logs” tab.

Initial log size is 1028 KB. You should increase the log size with 1 GB per week (168 hours) as a reference point. During configuration, users must configure log retention policy, backup rules, and more. For details, contact your system administrator.

VOICE RECORD AND LOCATION DATA STORAGE

Voice records and location data are stored in SmartPTT Express database. Database location is specified during SmartPTT Express installation.

Plan disk space using ~33 KB per one-minute call and ~7.5 KB per 100 GNSS reports as reference points. Calculate the required disk space using the expected rate of calls and location updates, number of simultaneous voice calls, and the storage retention timeout. For details, contact your system administrator.

2.6 SYSTEM ROLES & AUTHORIZATION

SmartPTT Express supports the following authorization modes:

- **Local Groups Authorization:** In this mode, each SmartPTT Express system role must be associated with a Windows user group that exists on SmartPTT Server host.
- **Domain Authorization:** In this mode, each SmartPTT Express system role must be associated with a user group that exists in the domain to which SmartPTT Server host belongs.

If the same group is assigned to multiple system roles, the most privileged role will apply.

Similarly, if a user account belongs to multiple groups at once, it receives the most privileged role.

The account used for logging on to SmartPTT Express does not have to be the one currently logged on to Windows.


REQUIRED USER ACCOUNT SETTINGS

SmartPTT Express has the following requirements to Windows user accounts:

User accounts must be enabled.

User password must not expire at the moment of use.

Users must not be required to change their passwords at the next logon.

 User groups and accounts must be configured before installing SmartPTT Express. If no valid administrator account exists, it will be impossible to log on to SmartPTT Express Configurator.

SmartPTT Express provides the following user roles:

- **Operators:** Can log on to SmartPTT Express Client only. Can only use the limited set of layouts and features provided for them.
- **Privileged Operators:** Are granted all operator permissions. Additionally, can edit the opened layout by adding / removing tabs, panels, buttons, tiles, but cannot save changes.
- **Supervisors:** Are granted all privileged operator permissions. Additionally, can change audio settings, create, and edit layouts, save layout changes, and have access to Patch Monitor feature. Instant Transmit and APB Transmit initiated by supervisors override those initiated by Operators.
- **Administrators:** Are granted all supervisor permissions. Additionally, can access any layout and talkgroup available in SmartPTT Express. Moreover, administrators can authorize in SmartPTT Express Configurator to change SmartPTT Express settings.

For details on the system roles configuration, see [Assigning User Groups to System Roles](#) on page 85.

2.6.1 CREATING WINDOWS USERS

Follow the procedure to create Windows user accounts for SmartPTT Express.

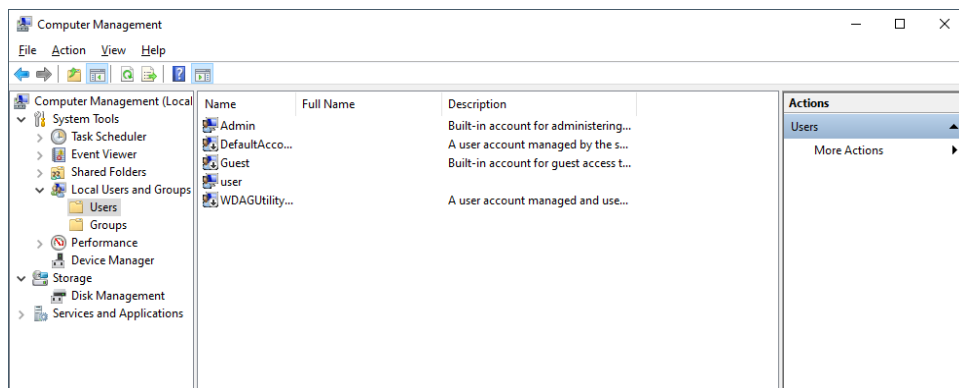
i The procedure is written for Windows 10 Pro. In other versions of Windows, some steps may be slightly different.

Prerequisites:

Log on to SmartPTT Server host as a Windows administrator.

Procedure:

1. Right-click the **Start** button.
The shortcut menu appears.
2. From the shortcut menu, select **Computer Management**.
Computer management window appears.



3. In the **Computer Management** window, on the left pane, expand **System Tools** → **Local Users and Groups** and click **Users**.
4. On the right pane, click **More Actions** and select **New User**.
The **New User** window appears.

The image shows a 'New User' dialog box with the following fields and options:


- User name: [text input]
- Full name: [text input]
- Description: [text input]
- Password: [password input]
- Confirm password: [password input]
- User must change password at next logon
- User cannot change password
- Password never expires
- Account is disabled

Buttons at the bottom: Help, Create, Close.

5. Configure the new user account:
 - a. In the **Username** field, type the username (login).
 - b. In the **Password** field, type the user password.
 - c. In the **Confirm password** field, type the password again.
 - d. Clear the **User must change password at next logon** check box.
 - e. Clear the **Account is disabled** check box.
 - f. (Optional) To deny the user the ability to change their password, select the **User cannot change password** check box.
 - g. (Optional) To avoid password expiration problems, select the **Password never expires** check box.
 - h. At the bottom of the window, click **Create**.
6. Repeat the previous step to create another user account.
7. At the bottom of the window, click **Close** to close it.

2.6.2 CREATING LOCAL USER GROUPS

Follow the procedure to create Windows user groups for SmartPTT Express system roles.

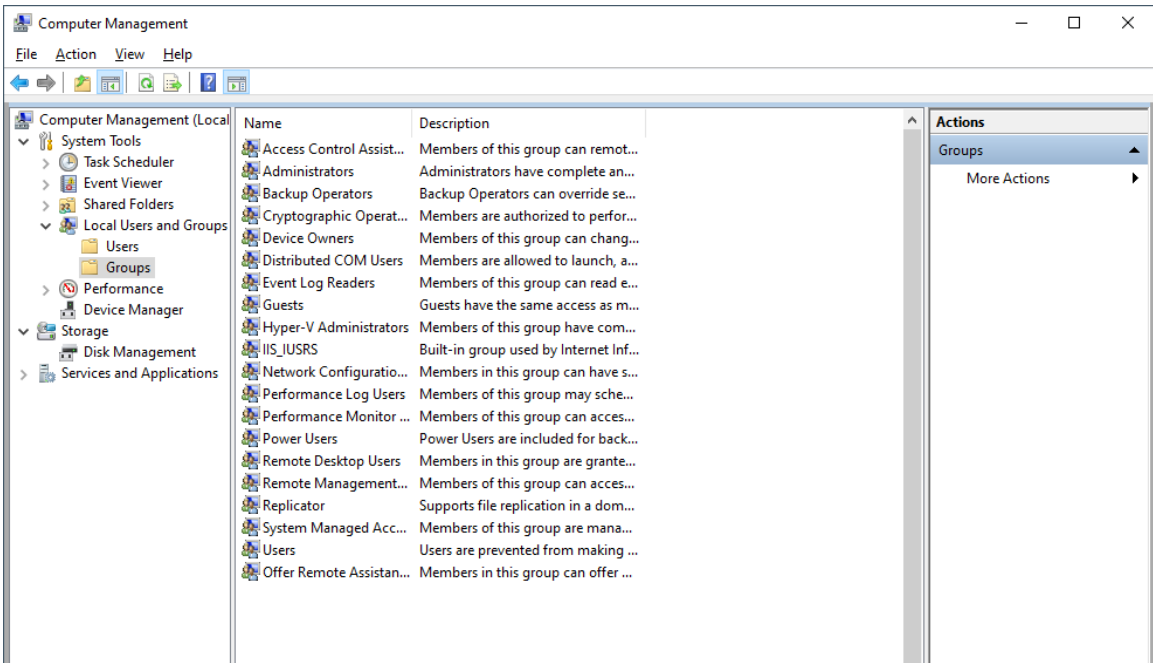
 The procedure is written for Windows 10 Pro. In other versions of Windows, some steps may be slightly different.

Prerequisites:

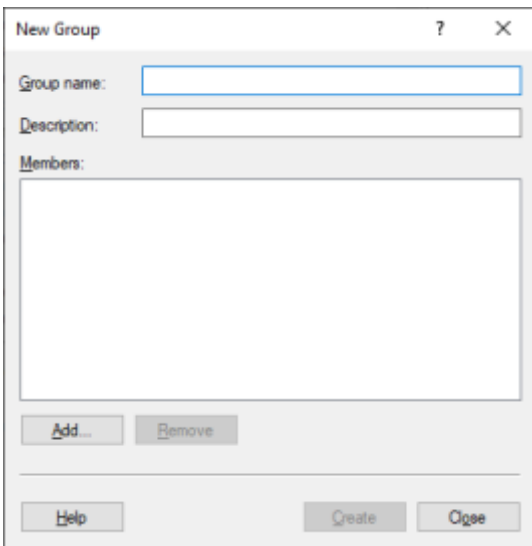
- Log on to SmartPTT Server host as a Windows administrator.
- Create the desired Windows user accounts. For details, see [Creating Windows Users](#) on page 46.

Procedure:

1. Right click the **Start** button.
The shortcut menu appears.
2. From the shortcut menu, select **Computer Management**.
The Computer Management window appears.



3. In the **Computer Management** window, on the left pane, expand **System Tools** → **Local Users and Groups** and click **Groups**.
4. On the right pane, click **More Actions** and select **New Group**.
The **New Group** window appears.



5. In the **Group name** field, enter a name for the group.

6. Add users to the group:
 - a. In the **New Group** window, click **Add**.
 - b. In the window that appears, click **Locations**.
 - c. In the dialog that appears, select the local computer and click **OK**.
 - d. In the **Enter the object names to select** field, type the desired Windows user name and click **Check Names**.

The user name appears in the field in the `<hostname>/<username>` format and is underlined.
 - e. (Optional) To add another user, type their name in the **Enter the object names to select** field without a preceding space or punctuation mark.
 - f. In the **Select Users** window, click **OK**.
7. In the **New Group** window, click **Create**.

Postrequisites: Repeat the procedure to create more groups.

2.7 POWER-SAVING MODE TURNOFF

Operating system may initiate power-saving mode after an inactivity timeout. This practically stops the operating system and, therefore, all of its running services and applications.

Computers intended to host SmartPTT Server must not enter power-saving mode. This includes prevention of the following actions:

- Entering sleep mode.
- Entering hibernation.
- Turning off automatically.

For details, contact your system administrator.

2.8 NETWORK TIME SYNCHRONIZATION

Network time synchronization can be organized on SmartPTT Express hosts for event database coherence. Since all SmartPTT Express hosts are Windows computers, Windows Time Service can be used. For details, see <https://docs.microsoft.com/en-us/windows-server/networking/windows-time-service/windows-time-service-top> (“Windows Time Service” at *Windows IT Pro Center*).

If DIMETRA Express uses an external NTP Server, it is recommended to synchronize all SmartPTT Express hosts with the same NTP Server. If DIMETRA Express does not utilize time synchronization, the synchronization for SmartPTT Express hosts can be organized in another way. For details, contact your system administrator.

2.9 DATE & TIME FORMAT ADJUSTMENT

SmartPTT Express uses Windows long date format and long time format to show date and time on the dedicated panels of SmartPTT Express Client. Short date and short time format are used in the Activity Log and Audio Archive. Adjust the corresponding date and time formats before you start using SmartPTT Express Client.

No changes are applied in runtime. If you modify the format while SmartPTT Express Client is open, you must reopen it to apply changes.

2.10 ANTIVIRUS & FIREWALL CONFIGURATION

At some configurations, customer antivirus or firewall software may consider SmartPTT Express a suspicious software. Actions they perform (file and network traffic scanning) may cause SmartPTT Express inoperability or low-performance state.

To avoid this, system administrators must perform the following actions:

- Add all SmartPTT Express executable files to the antivirus ignore list.
- Unlock network traffic for specific port numbers in the firewall software. For details, see [Table 3](#).

Executable files subjected for addition to ignore list are available at the following locations:

- Server root directory: **C:\Program Files\SmartPTT Express\Server**
- Configurator root directory: **C:\Program Files (x86)\SmartPTT Express\Configurator**
- Console root directory: **C:\Program Files (x86)\SmartPTT Express\Client**

Network ports are listed in the table below. The ports marked with an asterisk (*) must not or cannot be changed.

Table 3: Firewall Ignore List for Network Ports

Default port & protocol	Host	Description
54000 (TCP)	SmartPTT Server	Control interface between SmartPTT Server and SmartPTT Express Configurator. For details, see Re-Configuring SmartPTT Server on page 149.
53000 (TCP)	SmartPTT Server	Control interface between SmartPTT Server and SmartPTT Express Client applications. For details, see Configuring SmartPTT Server Interfaces on page 86.
55000* (UDP)	SmartPTT Server	Voice traffic between SmartPTT Server and SmartPTT Express Client applications.

55001-55002 (UDP)	SmartPTT Server	Voice traffic between SmartPTT Server and SmartPTT Express Client applications.
7101 (TCP)	SmartPTT Server	Control interface between SmartPTT Server and DIMETRA Express. For details, see Configuring DIMETRA Express Connection on page 92.
61000 (UDP)	SmartPTT Server	Voice records reception from DIMETRA Express. For details, see Connecting to DIMETRA AIS on page 106.
58301 (UDP)	SmartPTT Server	Voice traffic between SmartPTT Server and DIMETRA Express.
62000 (UDP)	SmartPTT Server	Voice traffic between SmartPTT Server and DIMETRA Express.
6006* (TCP)	SmartPTT Server	Radio user coordinates reception from DIMETRA Express. For details, see Configuring SDTS Connection for GPS on page 122.
52000 (UDP)	SmartPTT Server	LIP and SDTS traffic (coordinates) reception from DIMETRA Express.
30010 (TCP)	SmartPTT Server	Control interface between SmartPTT Server and RG-1000e radio gateway. For details, see Connecting to Non-DIMETRA Analog Resources on page 128.
ANY (TCP)	dispatch console	Control interface between SmartPTT Server and SmartPTT Express Client.
ANY (UDP)	dispatch console	Voice traffic between SmartPTT Server and SmartPTT Express Client.

If antivirus or firewall software is causing problems after performing the steps described in this section, contact SmartPTT Express technical support for assistance.

2.11 MAP PROVIDERS

SmartPTT Express uses the OpenStreetMap (OSM) format of maps to show radio user location and location history. The source of maps (map provider) can be an external HTTP server or locally stored files. No other protocols and formats are supported.

Only one map provider can be configured in SmartPTT Express. It is not possible to configure different map sources for different SmartPTT Express Client applications.



SmartPTT Express does not contain built-in map files or any software for HTTP server organization.

2.11.1 OFFLINE MAPS

A map in the OpenStreetMap (OSM) format can be stored as a collection of .png files to be accessed by SmartPTT Express Client applications. Information about preparing offline maps is available on the web site of SmartPTT Technical Support Center:

<http://support.smartptt.com/hc/en-us/articles/360007705159-How-to-Create-an-Offline-Map-for-SmartPTT-EXPRESS>.

The path to map storage is entered in the following format:

`atlas://[host]/<path>/{z}/{x}/{y}/.png`

If the map is stored locally on SmartPTT Express Client hosts, the map files must be copied to each of them using the same path (for example, `D:/Map`).

For Location Service configuration details, see [Setting Up GPS Storage and Map Server](#) on page 125.

2.11.2 HTTP MAP URLS

SmartPTT Express can be configured to use an external HTTP/HTTPS server as a source of maps in the OpenStreetMap (OSM) format.

The URL address of the OSM map provider must contain substitutions for provider ID, zoom, latitude, and longitude. Depending on the provider, the URL address must appear in one of the following ways:

- OSM-like: `http://{s}.maps.example.com/folder/{z}/{x}/{y}.png`
- Custom: `http://maps.example.com/folder/{s}/{z}/{x}/{y}.png`

Substitutions are described in [Table 4](#).

Table 4: Substitutions in Map Provider URL Addresses

Substitution	Description
{s}	Provider-specific identifier.
{z}	The initial zoom of the map in a layout.
{x}	The initial latitude of the map in a layout.
{y}	The initial longitude of the map in a layout.

For more information on the OpenStreetMap provider URL address, contact your OSM map provider.

2.11.3 MAP SERVER AUTHENTICATION

SmartPTT Express supports the following types of OSM server authentication:

- Basic authentication,
- Authentication with parameter provision in the URL.

Also, SmartPTT Express can work with OSM servers that do not require authentication.

All the authentication settings are system-wide ones. SmartPTT Express does not allow configuring authentication credentials for individual consoles and/or operators.

Please find the description of authentication options below.

BASIC AUTHENTICATION

At the basic authentication, map servers require user login and password. SmartPTT adds those data to the header of HTTP request. That is why credentials needed to be explicitly provided.

For more information on the basic authentication, see [Basic access authentication](#) on Wikipedia.

PARAMETER-BASED AUTHENTICATION

This is a non-standardized way of authentication that is up to the map server administrators. Authentication is based on a custom parameter introduction into the map server URL. For example, this can be as follows:

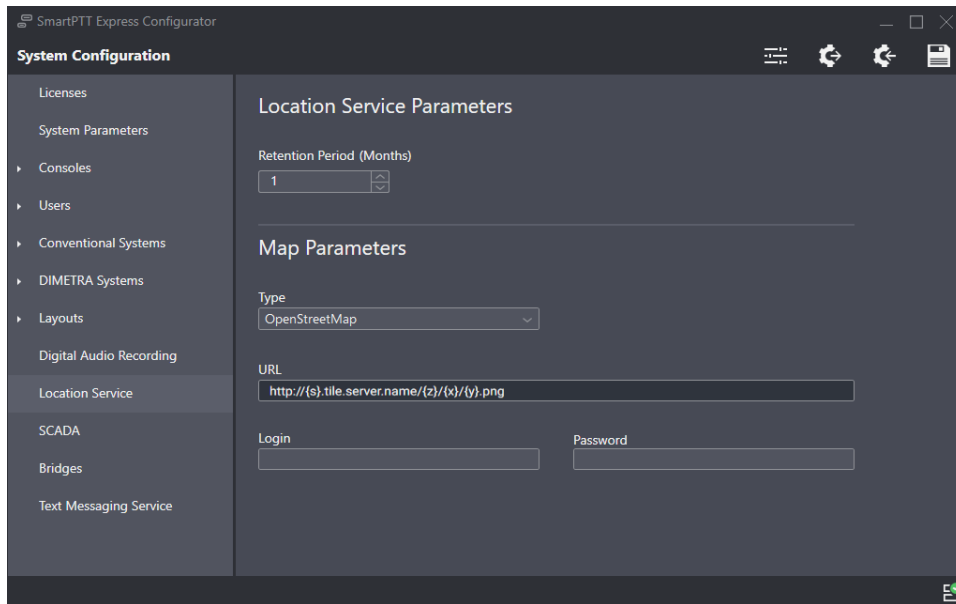
<http://map.example.com?parameter1=value1¶meter2=value2>

SmartPTT Express may support one or two of such parameters. If required, the URL should incorporate one and/or two of the following masks:

- If a value should be taken from the **Login** field in the Configurator, the **{login}** mask should be added to the URL.

- If a value should be taken from the **Password** field of the Configurator, the **{password}** mask should be added to the URL.

Map Server Login and Password in the Configurator



In case of use, beware that value of URL parameter do not allow spaces, ampersands (&), question marks (?), and some other characters. Replace them properly when type in the **Login** and/or **Password** fields.

Example of the result should be as follows:

<http://map.example.com?parameter1={login}¶meter2={password}>

Alternatively, all the necessary parameters can be specified explicitly in the URL.



Chapter 3: Software Installation


SmartPTT Express installation file includes all the necessary software components to install, start and use it.

3.1 ESSENTIAL ACTIONS BEFORE INSTALLING SMARTPTT EXPRESS

Before installing SmartPTT Express, make sure that the configuration actions outlined below have been undertaken and the necessary information has been obtained.

- Obtain the IP address of SmartPTT Server host.
- If you intend to connect to DIMETRA Express, ensure that it has been correctly configured to work with SmartPTT Express. For details, see [DIMETRA Express Configuration](#) on page 34.
- If you intend to use local groups authorization in SmartPTT Express, perform the following actions:
 - Create at least one Windows user account on SmartPTT Server host to serve as SmartPTT Express administrator (an existing account can be used). For details, see [Creating Windows Users](#) on page 46.
 - Create at least one user group on SmartPTT 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. For details, see [Creating Local User Groups](#) on page 49.
- If you intend to use domain authorization, perform the following actions:

- In the domain to which SmartPTT 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.

 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](#) on page 45.

3.2 INSTALLING SMARTPTT EXPRESS WITH POSTGRESQL

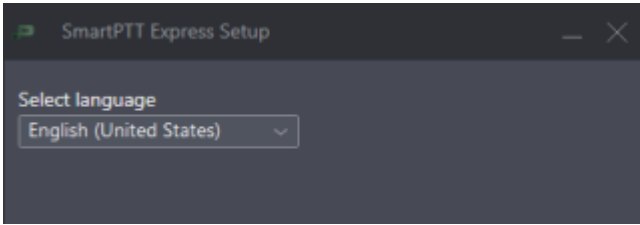
Follow the procedure to install SmartPTT Express on a computer.

Prerequisites:

- Ensure that you have performed all the necessary actions and obtained the information outlined in [Essential Actions before Installing SmartPTT Express](#) on page 59.
- Make the installation file (default name is **SmartPTTExpressSetup.exe**) available on the SmartPTT Express host using local or network storage.
- Extract SmartPTT Express installation file from an archive (if any). Performing installation from an archive will make the product unable to modify/repair/uninstall by Windows tools.

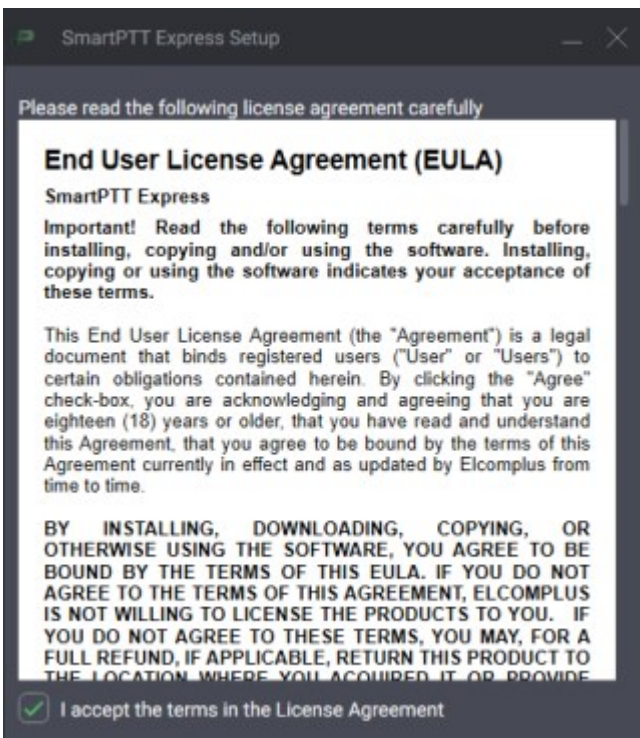
Procedure:

1. Run the installation file on the required computer.
Language selection window appears.

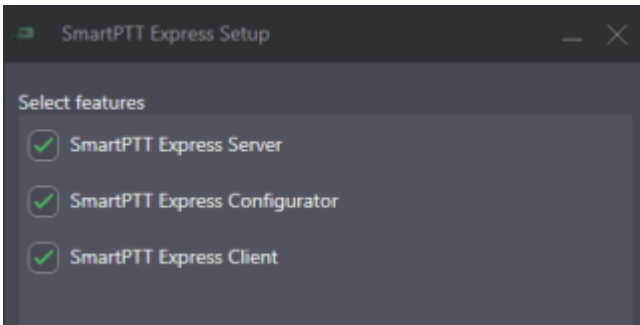


i Language selected during the next step will be set as the initial language of the Configurator and the Console. They might be changed later.

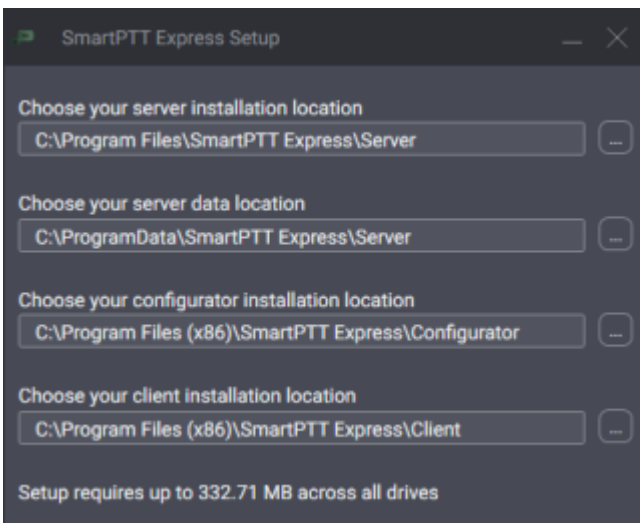
2. From the drop-down list, select the required language. Then click **Next**.
End-User License Agreement (EULA) appears.



3. In the window that appears, read the License Agreement, and select **I accept the terms in the License Agreement**. Then click **Next**.
The list of software components appears.

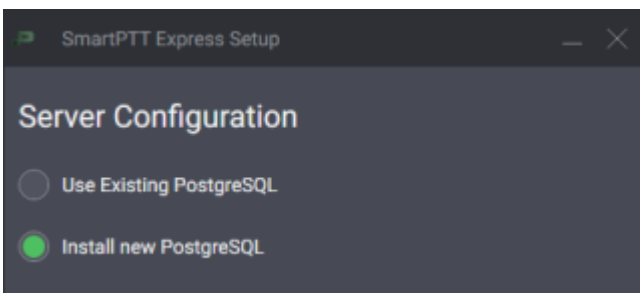


4. In the window that appears, select the components to be installed. Then click **Next**.
Installation paths appear.

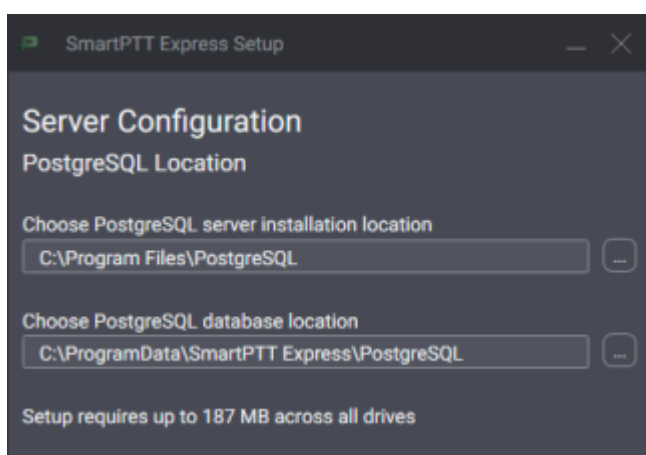


5. (Optional) Change the installation path by typing or copying and pasting, or via the **Browse** dialog. Then click **Next**.

If SmartPTT Server is selected, PostgreSQL settings appear. Otherwise, effect will be the same as after the step 10.

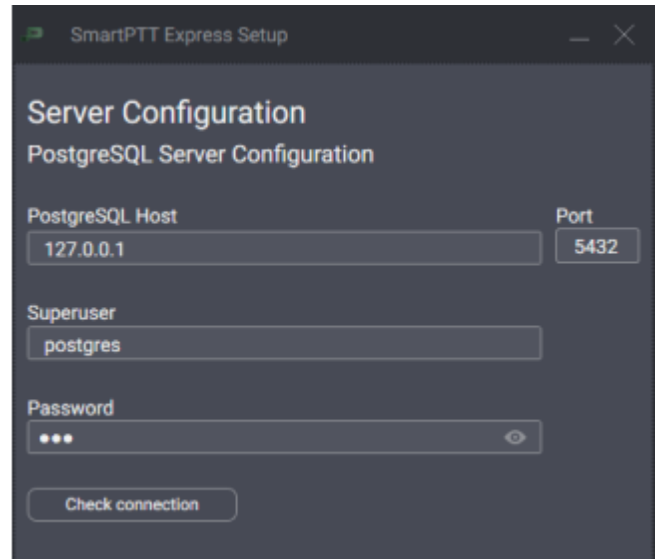
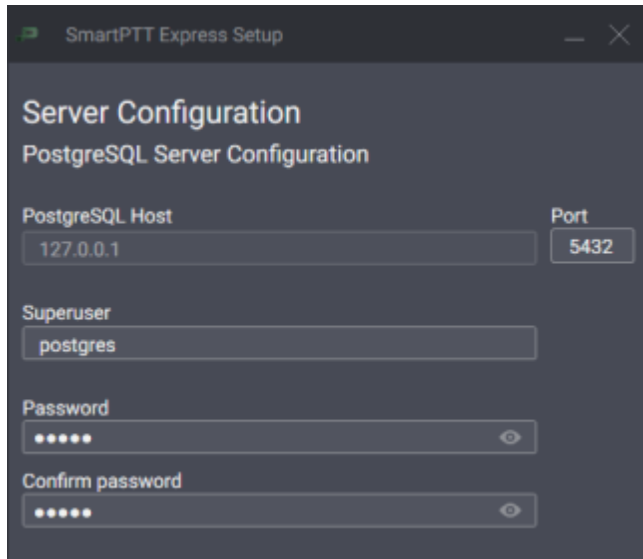


6. In the window that appears, perform one of the following actions:
 - a. To use an existing installation of PostgreSQL (local or remote), click **Use Existing PostgreSQL**. Then click **Next**.
PostgreSQL Server settings appear (proceed to step 8).
 - b. To install new PostgreSQL, click **Install new PostgreSQL**. Then click **Next**.
PostgreSQL installation paths appear.



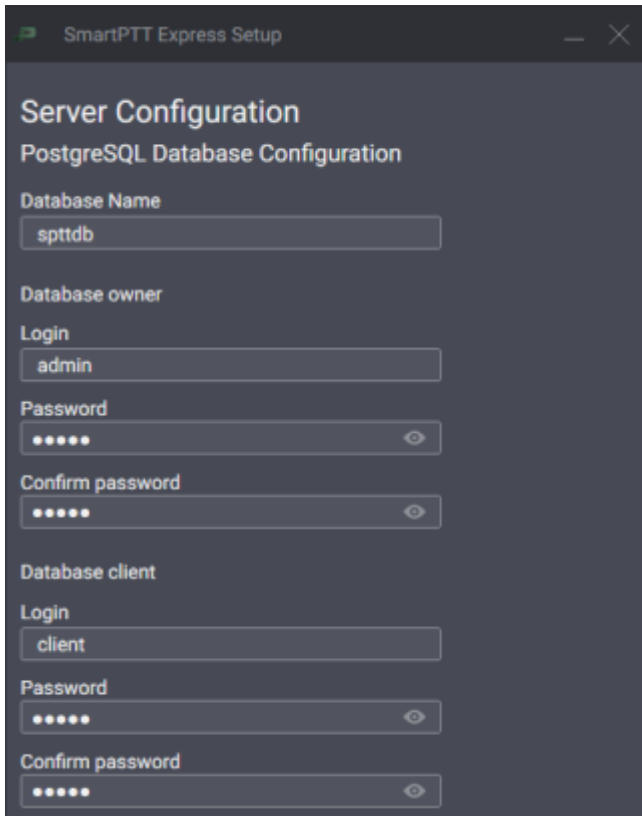
7. Enter the desired installation paths for PostgreSQL server and the database. Then click **Next**.
PostgreSQL Server settings appear.

⚠ If you are planning to maintain a large audio and/or GNSS data archive, it is advised to select a non-system drive with ample free space for database location.



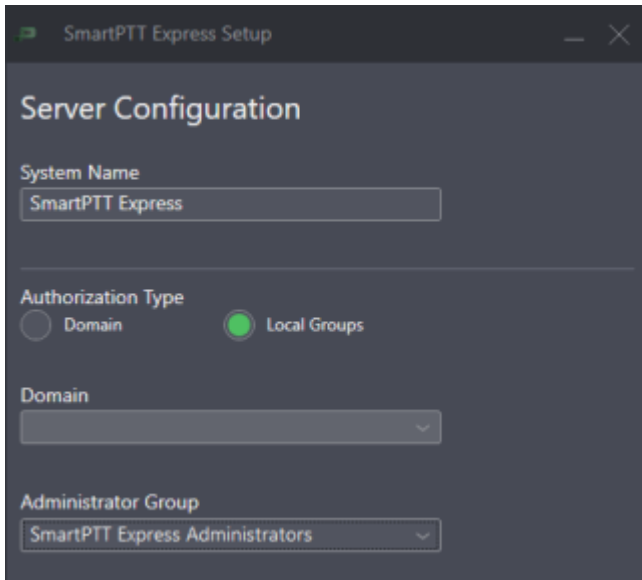
8. Set up the PostgreSQL Server:

- a. In the **Port** field, enter the TCP port used in PostgreSQL for Server connection.
- b. In the **Superuser** field, enter the name of the PostgreSQL Server with the superuser privileges.
- c. In the **Password** field, enter that user password.
- d. In the **Confirm** password field, enter the same password again. Then click **Next**. Database settings appear.



9. Configure SmartPTT Express database. Then click **Next**.
Initial authentication settings appear.

i The parameters on this screen are used internally by SmartPTT Server and need be memorized only if you plan to access the database with third-party tools.



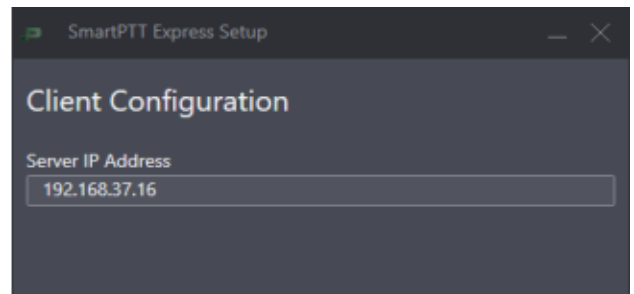
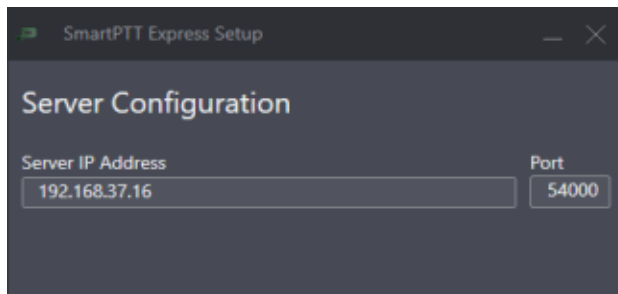
10. (Optional) In the window that appears, in the **System name** field, enter a name for the SmartPTT Express system.

11. Select user authorization type:

If...	Then...
To set domain authorization,	perform the following actions: <ol style="list-style-type: none"> 1. Click Domain. 2. From the Domain list, select the domain name.
To set local authorization,	click Local Groups .

12. From the **Admin Group** list, select the user group whose members will be granted administrator permissions in SmartPTT Express. Then click **Next**.

Initial SmartPTT Express Configurator or SmartPTT Express Client settings appear.



13. In the window that appears, perform the following actions:

- a. In the **Server IP Address** field, enter the IP address that will be used for connection between SmartPTT Server and SmartPTT Express Configurator as well as SmartPTT Express Client applications. By default, the current computer IP address is used.
- b. (Optional) If the **Port** field appears, enter the TCP port of the SmartPTT Server host. Then click **Next**.


14. Perform one of the following actions:

- If the **Client Configuration** window appears, in the **Server IP Address** field, enter the IP address of the computer that will be used to connect SmartPTT Express Client applications.
- If another window appears, skip the next step.

15. In the window that appears, select the required check boxes to add shortcuts to Windows Desktop. Then click **Next**.

Installation summary appears.

16. In the window that appears, look through the installation summary. If the information is correct, click **Install**.

 Do not start SmartPTT Express software until you restart the computer.

Postrequisites: Change SmartPTT Server Event Log size. For details, see [Disk Space Management](#) on page 44.

3.3 INSTALLING SMARTPTT EXPRESS WITHOUT POSTRESQL

Some customers may already use PostgreSQL for centralized data storage and retention setup. In that case, they may need to install only SmartPTT Express components. The procedure is basically the same, but it contains fewer steps.

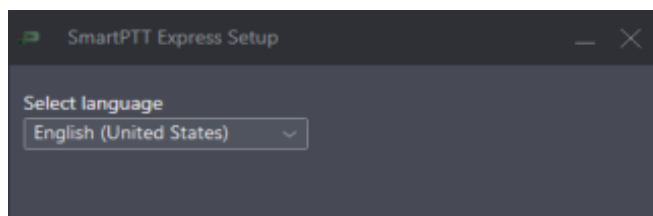
Prerequisites:

- Ensure that you have performed all the necessary actions and obtained the information outlined in [Essential Actions before Installing SmartPTT Express](#) on page 59.
- Extract the installation file (default name is **SmartPTTExpressSetup.exe**) from an archive to a local or network storage. Do not install the SmartPTT from an archive to keep the ability of modifying/repairing/uninstalling the product in the Windows Control Panel.

Procedure:

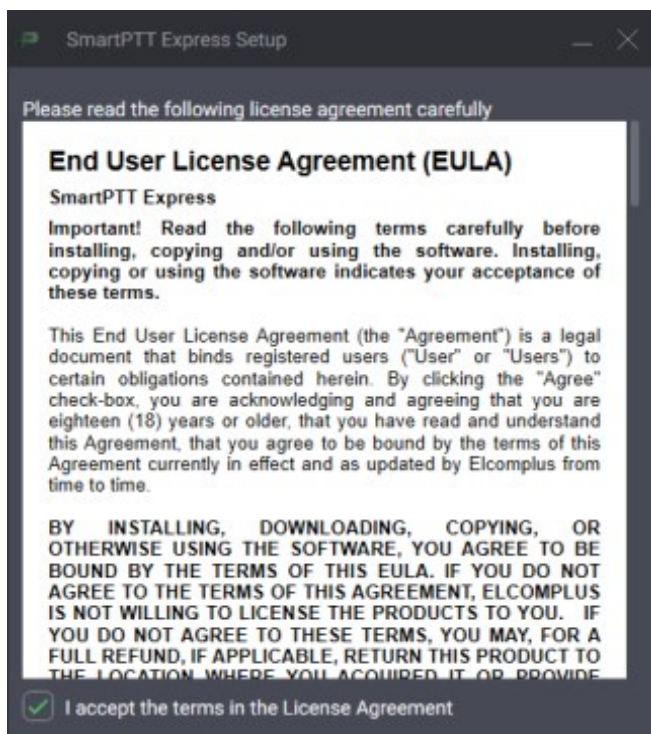
1. Run the installation file on the required computer.

Language selection window appears.

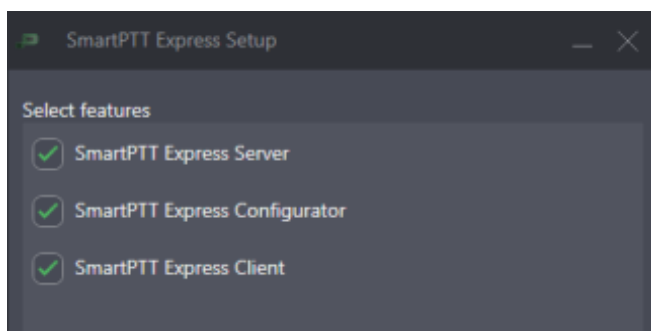


i Language selected during the next step will be set as the initial language of the Configurator and the Console. They might be changed later.

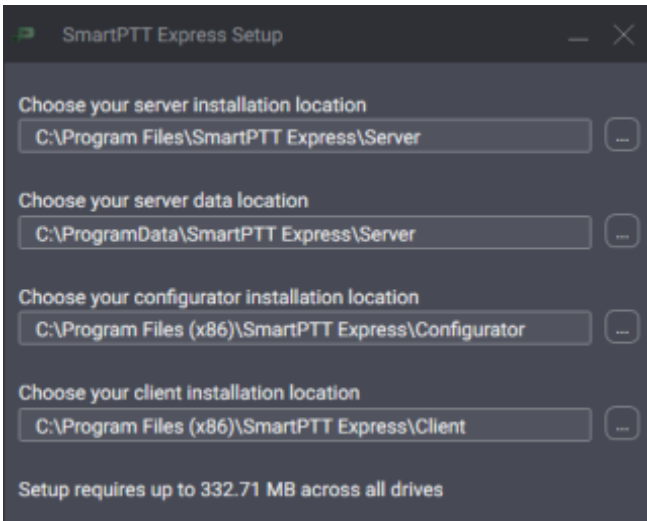
- From the drop-down list, select the required language. Then click **Next**.
End-User License Agreement (EULA) appears.



- In the window that appears, read the License Agreement, and select **I accept the terms in the License Agreement**. Then click **Next**.
The list of software components appears.

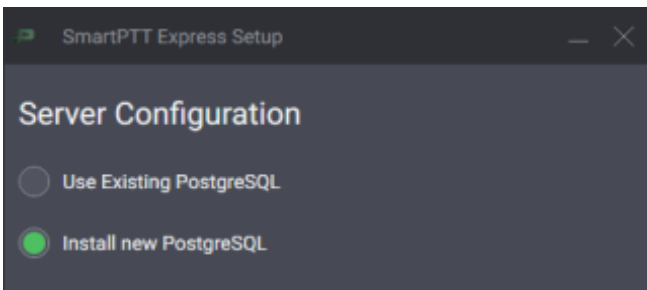


- In the window that appears, select the components to be installed. Then click **Next**.
Installation paths appear.

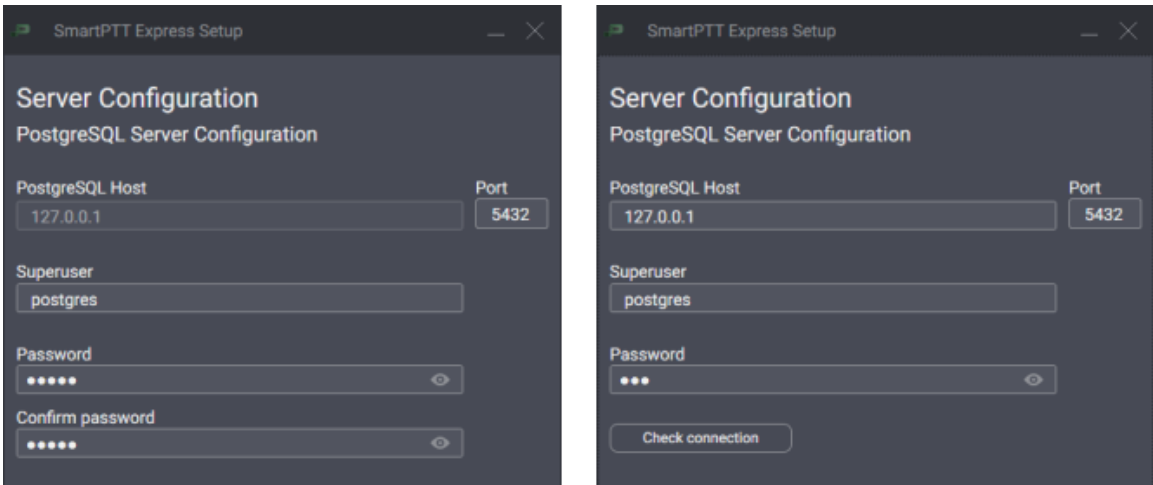


5. (Optional) Change the installation path by typing or copying and pasting, or via the **Browse** dialog. Then click **Next**.

If SmartPTT Server is selected, PostgreSQL settings appear. Otherwise, the effect will be the same as after the step 10.



6. In the window that appears, click **Use Existing PostgreSQL**. Then click **Next**. PostgreSQL Server settings appear (proceed to step 8).



7. Configure PostgreSQL Server:

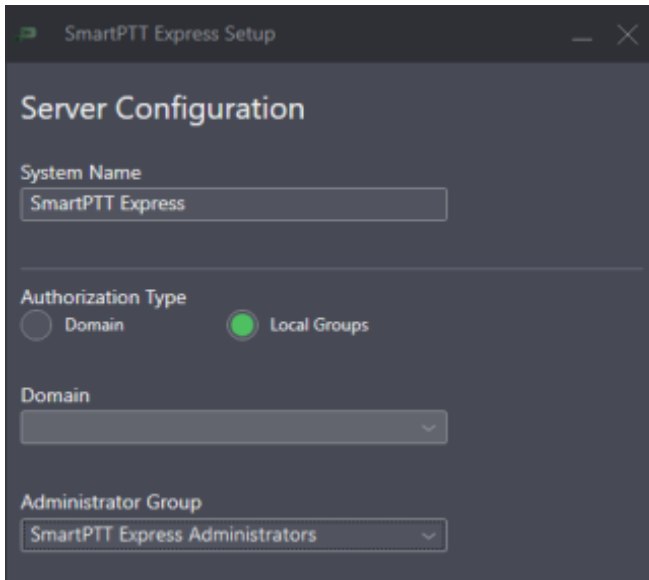
- a. In the **PostgreSQL Host** field, enter the IP address of the PostgreSQL Server.
- b. In the **Port** field, enter the PostgreSQL Server connection port number.
- c. In the **Superuser** field, enter user login with the superuser permissions.
- d. In the **Password** field, enter the corresponding user password.
- e. Click **Check connection**. If successful, then click **Next**.

Database settings appear.

The screenshot shows a window titled "SmartPTT Express Setup" with a "Server Configuration" section. Underneath is the "PostgreSQL Database Configuration" section. It contains several input fields: "Database Name" with the value "spttdb"; "Database owner" section with "Login" as "admin", "Password" as five dots, and "Confirm password" as five dots; and "Database client" section with "Login" as "client", "Password" as five dots, and "Confirm password" as five dots. Each password field has a toggle icon to the right.

i The parameters on the screen are used internally by SmartPTT Server and need be memorized only if you plan to access the database with third-party tools.

8. Configure SmartPTT Express database. Then click **Next**.
Authentication settings appear.

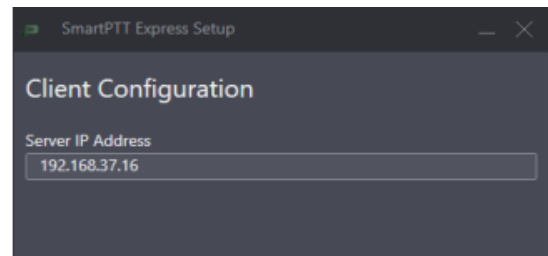
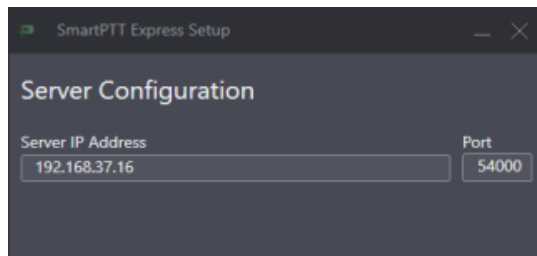


9. (Optional) In the window that appears, in the **System name** field, enter a name for the SmartPTT Express system.
10. Select user authorization type:


If...	Then...
To set domain authorization,	perform the following actions: <ol style="list-style-type: none"> 1. Click the Domain option. 2. From the Domain list, select the domain name.
To set local authorization,	click Local Groups .

11. From the **Admin Group** list, select a user group whose members will have access to the Configurator. Then click **Next**.

Initial SmartPTT Express Configurator or SmartPTT Express Client settings appear.



12. In the window that appears, perform the following actions:
 - a. In the **Server IP Address** field, enter the IP address of the Server computer opened for the Console and the Configurator.
 - b. If the **Port** field appears, enter the TCP port of the SmartPTT Server host. Then click **Next**.
13. Perform one of the following actions:
 - If the **Client Configuration** window appears, in the **Server IP Address** field, enter only the IP address of the Server computer.
 - If another window appears, proceed to the next step.
14. In the window that appears, select the required check boxes to add shortcuts to Windows Desktop. Then click **Next**.
Installation summary appears.
15. In the window that appears, review the installation summary. If correct, click **Install**.
16. When complete, close the window. If required, restart the computer.

 Do not start SmartPTT Express software until you restart the computer.

Postrequisites: Change SmartPTT Server Event Log size. For details, see [Disk Space Management](#) on page 44.

3.4 INSTALLING STANDALONE SMARTPTT EXPRESS CLIENT

Follow the procedure to install SmartPTT Express Client on a dedicated computer. This procedure is the shortened text-only version of the full installation procedure. For details, see [Installing SmartPTT Express with PostgreSQL](#) on page 60.

Prerequisites:

- Ensure that you have performed all the necessary actions and obtained the information outlined in [Essential Actions before Installing SmartPTT Express](#) on page 59.
- Make the installation file (default name is **SmartPTTExpressSetup.exe**) available on the dispatch console host using local or network storage.

Procedure:

1. Run the installation file.
Language selection window appears.
2. From the drop-down list, select the language that will be used during installation and set as the initial language of SmartPTT Express Client and SmartPTT Express Configurator. Then click **Next**.
End-User License Agreement (EULA) appears.
3. In the window that appears, read the License Agreement, and select **I accept the terms in the License Agreement**. Then click **Next**.
List of software components appears.
4. In the window that appears, perform the following actions:
 - a. Clear **SmartPTT Server**.
 - b. Clear **SmartPTT Express Configurator**.

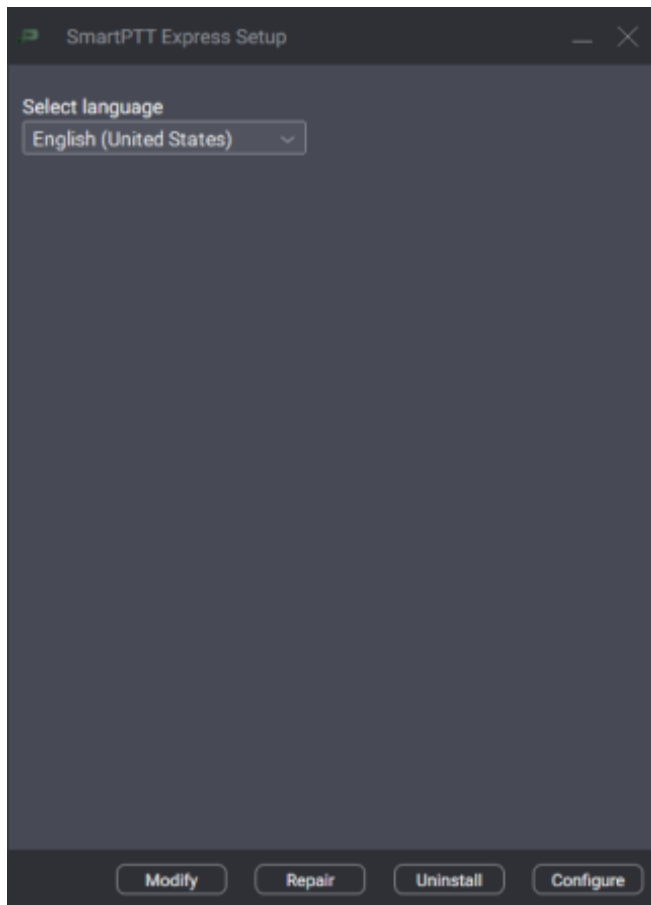
- c. Select **SmartPTT Express Client**. Then click **Next**.
Installation path appears.
5. (Optional) Change the installation path:
 - a. To the right of the text field with the default path, click **Browse**.
 - b. In the dialog box, select the required path. Then click **Open**.
New path appears in the text field.
 - c. Click **Next**.
SmartPTT Server IP address input appears.
6. In the window that appears, in the **Server IP Address** field, enter the IP address that is used (or will be used) by SmartPTT Server to connect SmartPTT Express Client applications.
Shortcut creation settings appear.
7. In the window that appears, select the check box to add a shortcut on Windows Desktop.
Then click **Next**.
Installation summary appears.
8. In the window that appears, look through the installation summary info. If correct, click **Install**.



Do not start SmartPTT Express Client until you restart the computer.

3.5 MODIFICATION OF THE INSTALLED SOFTWARE

Modification may imply installing new or uninstalling existing components of the software. If you run the installation file on a computer with installed SmartPTT Express, a window like what is below will appear.



In the window, you will have access to the following functionality:

- **Modify:** The button starts a procedure like installation. During the procedure, the user can install components that are currently absent on the computer or uninstall ones that are no longer required on the computer.
- **Repair:** The button starts software installation repair. This includes binary and executable file updates, registry entries checkout, and other actions.
- **Uninstall:** The button starts the uninstallation procedure that deletes service files (if required). For details, see [Uninstalling SmartPTT Express](#) on page 152.

- **Configure:** The button starts the modification of SmartPTT Server authentication and SmartPTT Server network interface update. For details, see [Re-Configuring SmartPTT Server](#) on page 149.




Chapter 4: SmartPTT Express Configuration

SmartPTT Express configuration is performed using the SmartPTT Express Configurator application. Once configuration is completed, SmartPTT Express Client will be able to successfully authorize its users.

4.1 LOGGING ON TO SMARTPTT EXPRESS CONFIGURATOR

Follow the procedure to log on to SmartPTT Express Configurator and access SmartPTT Express settings.

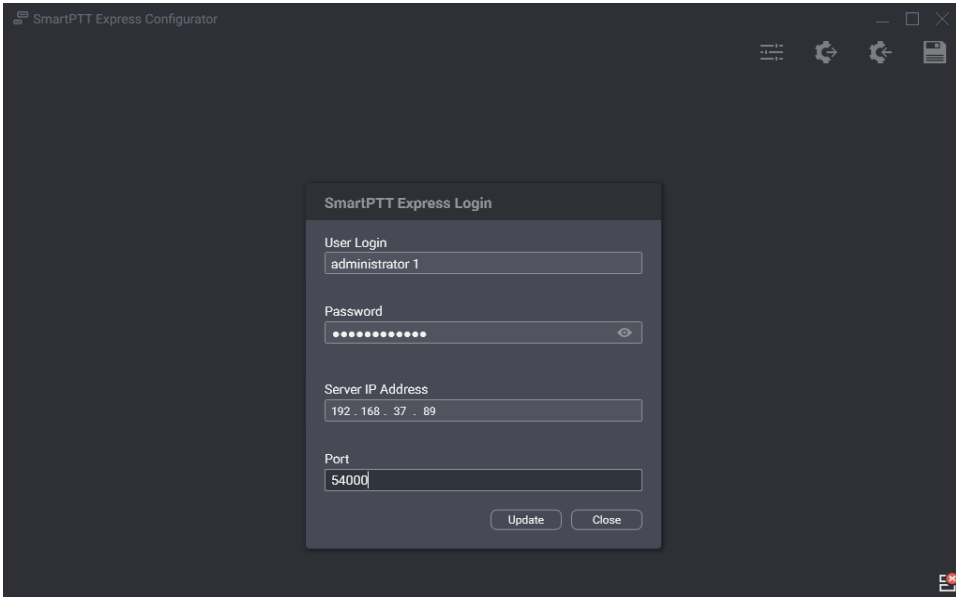
 After you log on to SmartPTT Express Configurator, you must finish SmartPTT Express configuration. Otherwise, you will be unable to save changes.

Prerequisites:

- Obtain SmartPTT Express administrator credentials (login and password). For details, see [System Roles & Authorization](#) on page 45.
- Obtain the SmartPTT Server IP address and TCP port. For details, see [Installing SmartPTT Express with PostgreSQL](#) on page 60.
- Start SmartPTT Server. For details, see [Start and Stop of the SmartPTT Server](#) on page 81.

Procedure:

1. Start SmartPTT Express Configurator.
The **SmartPTT Express Login** window appears.



2. If the **Disconnected** icon (🚫) appears in the Status Bar, perform the following actions:
 - a. In the login window, click **Server Connection**.
 - b. In the **Server IP Address** field, type the IP address of the SmartPTT Server using dot-decimal notation.
 - c. In the **Port** field, type the TCP port of the Server used for Configurator and Console connections. Then click **Update**.

The **Connected** icon (🟢) should appear in the Status Bar.

i If the icon does not change, you can modify the SmartPTT Server installation. For details, see [Modification of the Installed Software](#) on page 76.

3. In the **User Login** field, type the user login.
4. In the **Password** field, type the user password. Then click **Login**.


Postrequisites: If you are logging on to SmartPTT Express Configurator for the first time, perform the first start configuration. For details, see [First Start Configuration](#) on page 84.

4.2 CHANGING LANGUAGE

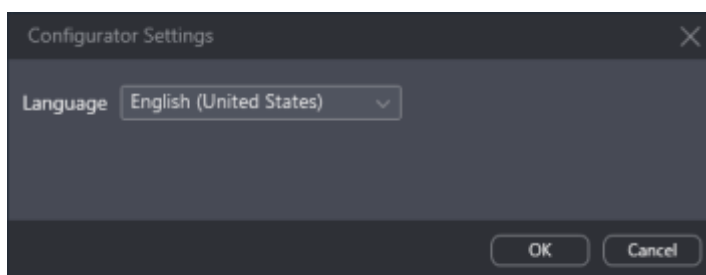
Follow the procedure to change the interface language of SmartPTT Express Configurator.

Prerequisites: Log on to SmartPTT Express Configurator.

Procedure:

1. In SmartPTT Express Configurator, on the Toolbar, click **Configurator Settings** .

The **Configurator Settings** window appears.



2. In the window that appears, from the **Language** list, select the desired language. Then click **OK**.

Postrequisites: To apply changes, log over the Configurator.

4.3 START AND STOP OF THE SMARTPTT SERVER

SmartPTT Server is a Windows service that can be started, stopped, and restarted. Started service is required for configuration and dispatching.

To control the service, use one of the following methods:

- Use the **Stop SmartPTT Server** and **Start SmartPTT Server** shortcuts in the Start menu.
- Open Windows **Services** app or the **Services** tab of the **Task Manager** application, find **SmartPTT Server** in the list of services, right-click it and use commands from the menu that opens.

- Run Windows **Command Prompt** (`cmd.exe`) as administrator and type `net start "SmartPTT Server"` or `net stop "SmartPTT Server"`.
- Use other Windows system management tools and approaches.

4.4 GENERATING HARDWARE ID

Follow the procedure to generate SmartPTT Express Hardware ID that is required to order a license file. Alternatively, you can generate Hardware ID using a dedicated tool. For details, visit SmartPTT Technical Support Center.

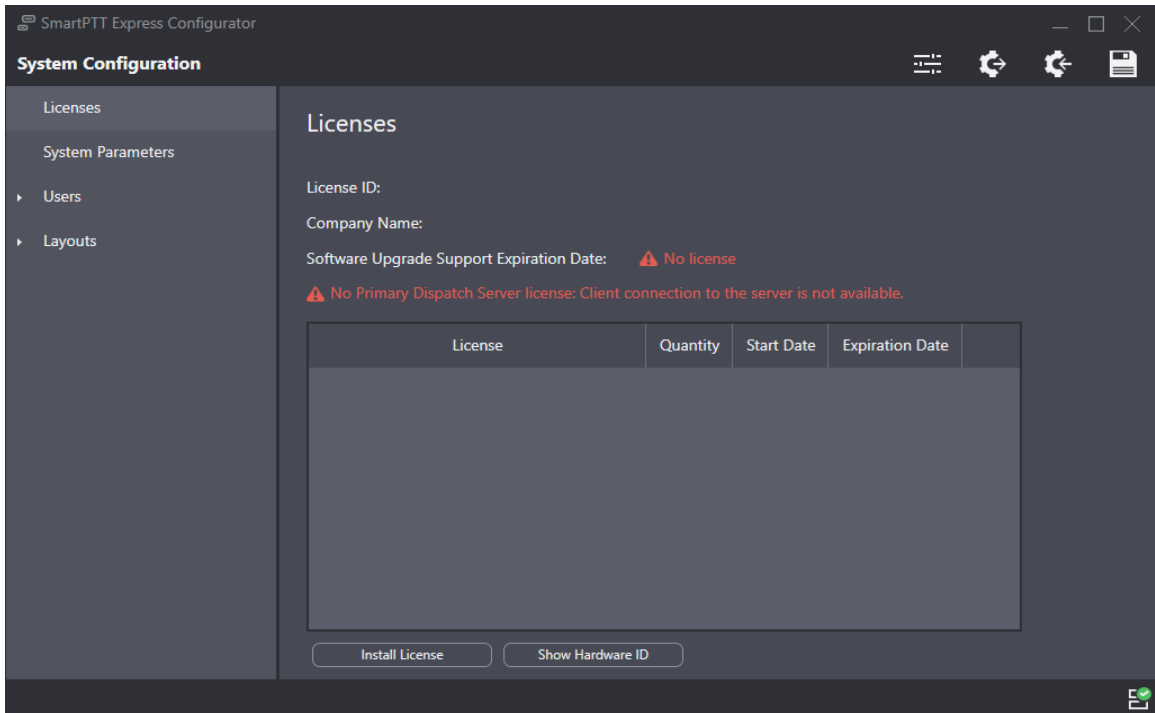
Prerequisites:

- Install SmartPTT Server and SmartPTT Express Configurator.
- Log on to SmartPTT Express Configurator.

Procedure:

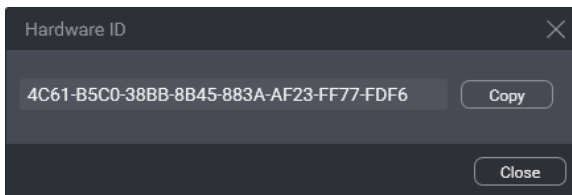
1. In the Configurator, click the **Licenses** tab.
License information appears.

License Information (No License Installed)



2. On the right pane, at the bottom of the table, click **Show Hardware ID**.

The **Hardware ID** window appears.



3. In the window that appears, click **Copy** to copy the Hardware ID code to the clipboard. Then click **Close**.
4. Deliver the Hardware ID code to the Elcomplus, Inc. representatives. If requested, add more relevant information.

Postrequisites: Install the license file after you receive it. For details, see [Installing License](#) on page 84.

4.5 FIRST START CONFIGURATION

After acquiring the license file, the following actions must be performed:

- Install the license file. For details, see [Installing License](#) below.
- Select user groups for supervisors, operators, and privileged operators. For details, see [Assigning User Groups to System Roles](#) on page 85.
- Determine SmartPTT Server addresses and ports. For details, see [Configuring SmartPTT Server Interfaces](#) on page 86.

Until these steps (except license installation) are completed, SmartPTT Express configuration changes cannot be saved.

4.5.1 INSTALLING LICENSE

Follow the procedure to install the license file and unlock SmartPTT Express features.

Prerequisites:

- Receive the license file from Elcomplus, Inc. Copy it to the SmartPTT Server host.
- Log on to SmartPTT Express Configurator.

Procedure:

1. In SmartPTT Express Configurator, click the **Licenses** tab.
License information appears.
2. On the right pane, click **Install License**.
A dialog window appears.
3. In the dialog window, select the received SPTTLX file. Then click **Open**.

4. On the right pane, view the table with licenses. Make sure that the information is correct.

Postrequisites:

- Assign user groups to system roles. For details, see [Assigning User Groups to System Roles](#) below.
- Configure SmartPTT Server interfaces. For details, see [Configuring SmartPTT Server Interfaces](#) on page 86.

4.5.2 ASSIGNING USER GROUPS TO SYSTEM ROLES

Follow the procedure to complete the authentication settings in SmartPTT Express.

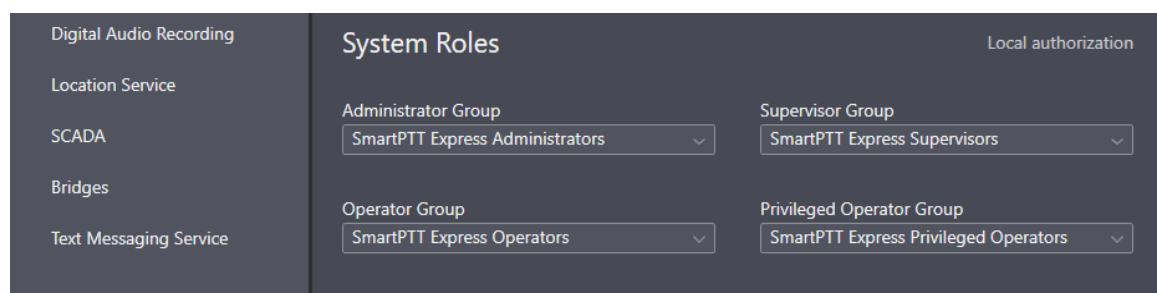
Prerequisites:

- Create user groups for the desired system roles. For details, see [Creating Local User Groups](#) on page 49.
- Log on to SmartPTT Express Configurator.

Procedure:

1. In the Configurator, on the left pane, click the **System Parameters** tab.
System parameters appear on the right pane.


System Roles Settings




The screenshot shows the 'System Roles' configuration page in the SmartPTT Express Configurator. The page is titled 'System Roles' and has a 'Local authorization' label in the top right corner. On the left side, there is a navigation menu with the following items: Digital Audio Recording, Location Service, SCADA, Bridges, and Text Messaging Service. The main content area contains four dropdown menus for assigning user groups to system roles:

System Role	Assigned User Group
Administrator Group	SmartPTT Express Administrators
Supervisor Group	SmartPTT Express Supervisors
Operator Group	SmartPTT Express Operators
Privileged Operator Group	SmartPTT Express Privileged Operators

2. On the right pane, in the **System Roles** area, perform the following actions:
 - a. From the **Supervisor Group** list, select a group of supervisors.
 - b. From the **Supervisor Group** list, select a group of regular operators.
 - c. From the **Supervisor Group** list, select a group of privileged operators.

 It is possible to assign the same user group to multiple roles. In such case, its members will receive the most privileged role.

3. Perform one of the following actions:
 - To proceed with the first-start configuration, set up SmartPTT server addresses. For instructions, see [Configuring SmartPTT Server Interfaces](#) below.
 - To save changes, on the Toolbar, click **Save configuration** .

4.5.3 CONFIGURING SMARTPTT SERVER INTERFACES

Follow the procedure to configure SmartPTT Server communication interfaces with dispatch consoles.

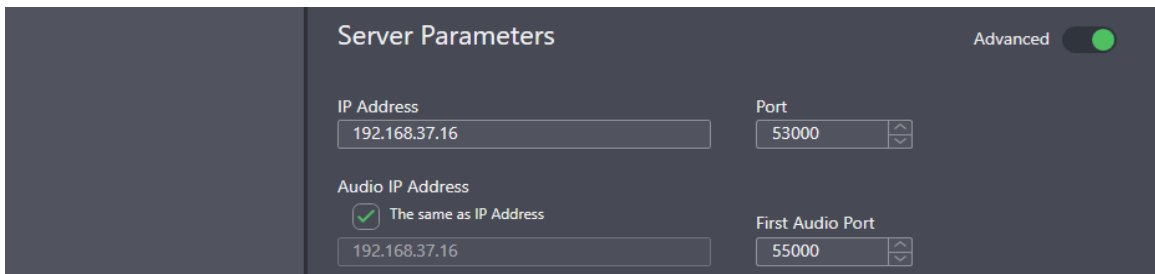
Prerequisites:

- Obtain SmartPTT Server IP address, TCP and the corresponding UDP ports.
- Log on to SmartPTT Express Configurator.

Procedure:

1. In SmartPTT Express Configurator, on the left pane, click the **System Parameters** tab. System parameters appear on the right pane.


Interfaces Setup Parameters



The screenshot shows a configuration window titled "Server Parameters" with an "Advanced" toggle switch turned on. The interface contains the following fields and options:

- IP Address:** A text input field containing "192.168.37.16".
- Port:** A dropdown menu showing "53000".
- Audio IP Address:** A checked checkbox labeled "The same as IP Address" with a text input field below it containing "192.168.37.16".
- First Audio Port:** A dropdown menu showing "55000".

4. (Optional) In the top right corner of the **Server Parameters** area, turn on the **Advanced** toggle to display all available settings.
5. In the **Main Server** area, in the **IP Address** field, type the SmartPTT Server IPv4 address in dot-decimal notation.
6. In the **Port** field, enter an unlocked TCP port number. For details, see [Table 3](#) on page 53.
7. (Optional) To use a dedicated IP address for voice traffic between SmartPTT Server and SmartPTT Express Client applications, perform the following actions:
 - a. In the **Server Parameters** area, under **Audio IP Address**, clear the **The same as IP Address** check box (visible if the **Advanced** toggle is turned on).
 - b. In the field below the check box, type the desired IP address.
8. (Optional) In the **First Audio Port** field, enter the UDP port number to be used for voice traffic between SmartPTT Server and the first SmartPTT Express Client application that connects to it.

 Each connected Console application will allocate additional ports that follow the specified value.

9. Perform one of the following actions:

- To proceed with the first start configuration, assign user groups to system roles. For instructions, see [Assigning User Groups to System Roles](#) on page 85.
- To save changes, on the Toolbar, click **Save Configuration** (📁).

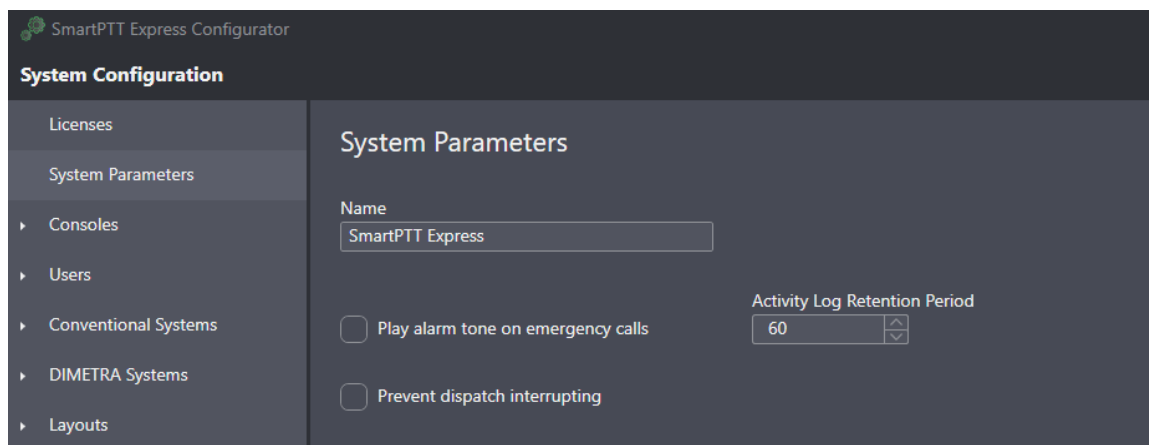
4.5.4 EDITING MISCELLANEOUS SETTINGS

Follow the procedure to edit miscellaneous SmartPTT Express settings.


Prerequisites: Log on to SmartPTT Express Configurator.

Procedure:

1. In the Configurator, on the left pane, click the **System Parameters** tab.
System parameters appear on the right pane.



2. On the right pane, in the **System Parameters** area, configure Emergency handling parameters:
 - To turn on Emergency Alert Tones in Consoles on incoming emergency calls, select the **Play alarm tone on emergency calls** check box.
 - To turn off the tone playback on emergency calls, clear the **Play alarm tone on emergency calls** check box.

3. In the **Activity Log Retention Period** field, enter the retention period (in minutes) for activity log entries.
4. Set up interruption capabilities for operator voice transmits:
 - To prevent interruption of operator transmissions, select the **Prevent dispatch interrupting** check box.
 - To allow interruption of operator transmissions, clear the **Prevent dispatch interrupting** check box.
5. (Optional) In the **Name** field, type a name for the SmartPTT Express system.
6. On the Toolbar, click **Save configuration** .

4.6 ADDING AND EDITING CONSOLES

Follow the procedure to add a new or edit an existing dispatch console in the Configurator.

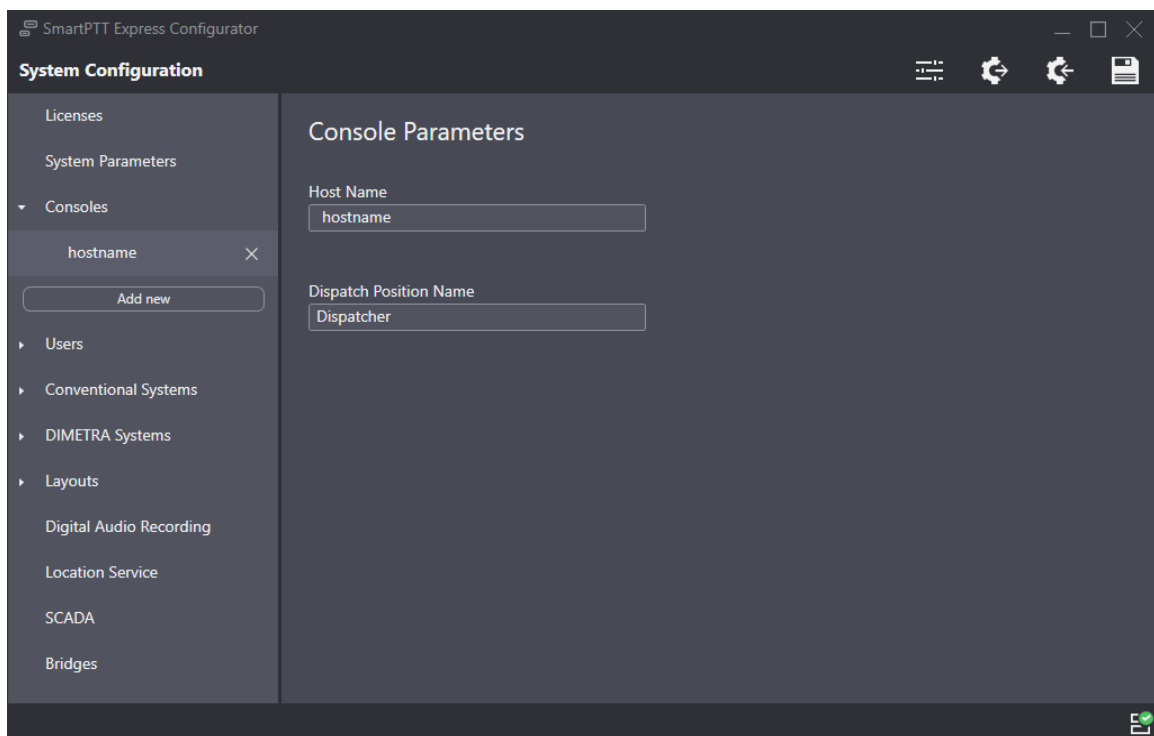
Prerequisites:


- Obtain the host name/computer name/system name of the dispatch console host.
- Log on to SmartPTT Express Configurator.

Procedure:

1. In the Configurator, on the left pane, expand the **Consoles** tab.
The list of existing consoles and the **Add new** button appear under the tab.

Console Settings



2. Perform one of the following actions:
 - To add a new console, click **Add new**.
 - To edit an existing console parameters, click the required console.
3. On the right pane, in the **Host Name** field, type the name of the dispatch console host (case insensitive).
4. (Optional) In the **Dispatch Position Name** field, type the console name that will appear in the Console screen. If empty, the hostname will appear.
5. On the Toolbar, click **Save configuration** .

Postrequisites: Repeat the procedure to add other consoles.

4.7 ADDING AND EDITING USERS

Follow the procedure to add and/or edit SmartPTT Express users.

Prerequisites:

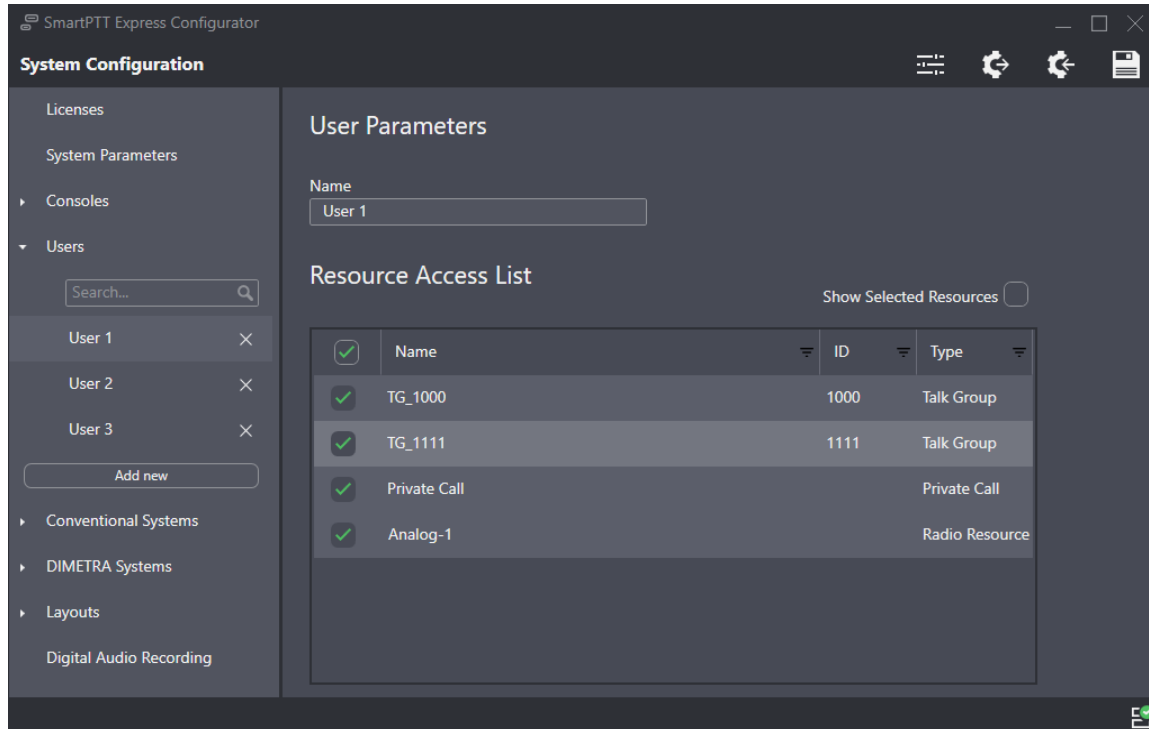
- Obtain logins of the relevant Windows users. For details, see [System Roles & Authorization](#) on page 45.
- Log on to SmartPTT Express Configurator.

Procedure:

1. In the Configurator, on the left pane, expand the **Users** tab.


The list of users and the **Add new** button appear under the tab.

SmartPTT User Settings



2. Perform one of the following actions:

3. To add a new user, click **Add new**.
4. To edit an existing user settings, click the required user.
5. On the right pane, in the **Name** field, enter the corresponding Windows user login.
6. If **Resource Access List** is not empty, set up resources that will be available to the user. For instructions, see [Setting Up Available Resources for Users](#) on page 140.

 The **Resource Access List** table becomes available after SmartPTT Server synchronizes with DIMETRA Express.

7. On the Toolbar, click **Save configuration** .

4.8 DIMETRA CONNECTION AND VOICE DISPATCH

Connection to the DIMETRA Express radio system includes the following actions:

- Configuration of SmartPTT Server interfaces. For details, see [Configuring DIMETRA Express Connection](#) below.
- Account association. For details, see [Configuring Associations between DIMETRA Express and SmartPTT Express User Accounts](#) on page 99.

4.8.1 CONFIGURING DIMETRA EXPRESS CONNECTION

Follow the procedure to add or edit a connection to DIMETRA Express.

Prerequisites:

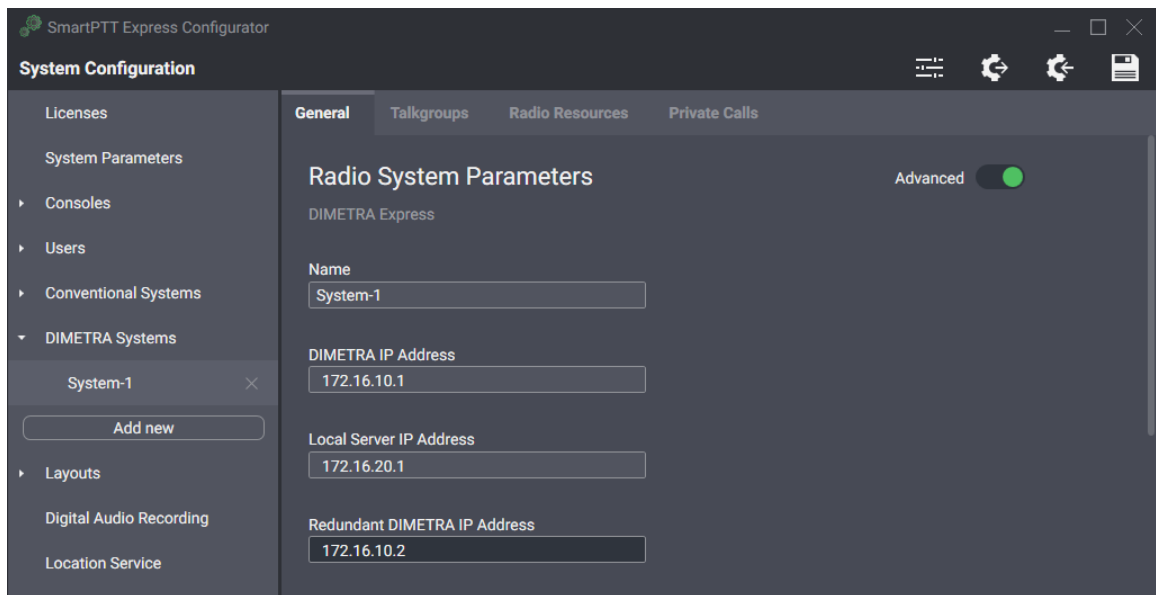
- Ensure that the installed license includes **DIMETRA Express Connectivity**.

- Add console users via the Configurator. For details, see [Adding and Editing Users](#) on page 91.
- Obtain DIMETRA Express IP address. For details, see [DIMETRA Express Configuration](#) on page 34.


Procedure:

1. In the Configurator, on the left pane, expand the **DIMETRA Systems** tab.
2. Perform one of the following actions:
 - To add DIMETRA Express, click **Add new**, and then select **DIMETRA Express**.
 - To edit connection settings, click the required radio system.

DIMETRA settings appear.



3. On the right pane, click the **General** tab.
4. In the **Radio System Parameters** area, enter DIMETRA Express interface parameters:
 - a. (Optional)

- b. In the **Name** field, type a name for the radio system.
 - c. In the **DIMETRA IP Address** field, type DIMETRA Express IP address.
5. (Optional) Set up a dedicated IP address of the Server Computer:
 - a. In the top right corner of the area, turn on the **Advanced** toggle.
The **Local Server IP Address** field appears.
 - b. In the field, enter the IP address for DIMETRA Express connection.
6. On the Toolbar, click **Save configuration** .

4.8.2 GETTING RESOURCES FROM DIMETRA EXPRESS

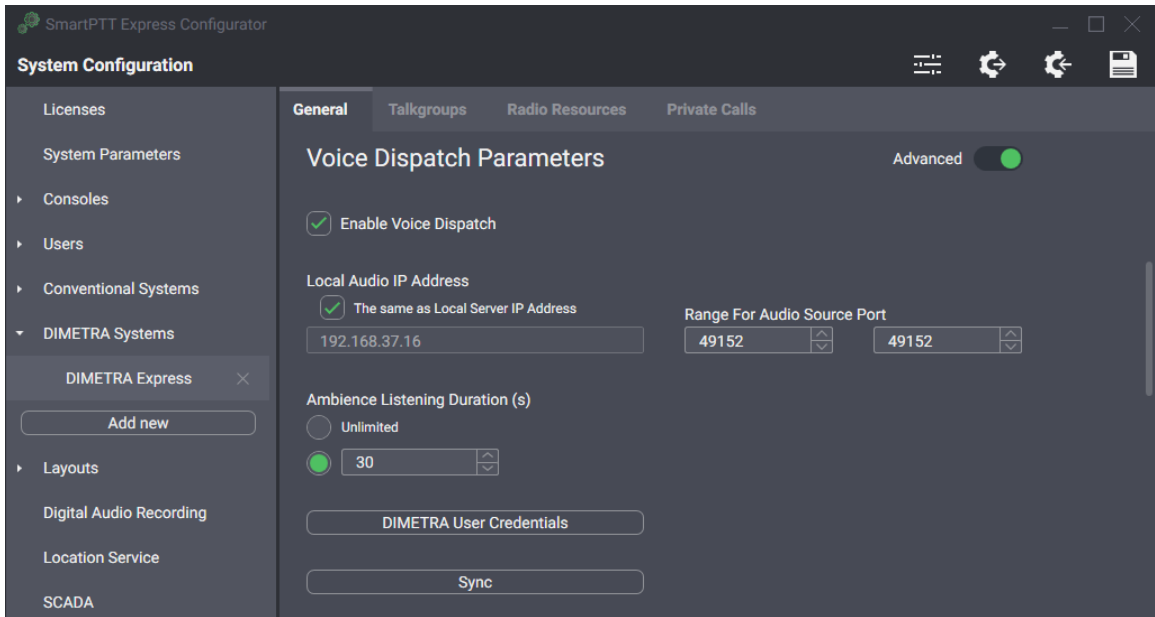
Follow the procedure to load digital and analog radio resources from DIMETRA. Here digital resources mean talkgroups and subscribers; analog resources mean donor radios connected over CCGW.

Prerequisites:

- Ensure that you have enough Wireless Gateways licenses (to load DIMETRA analog radio resources), and at least one Dispatcher Voice Channel license.
- (Optional) Check if you have enough Ambience Listening licenses.
- Configure DIMETRA Express connection. For details, see [Configuring DIMETRA Express Connection](#) on page 92.

Process:


1. In the Configurator, on the left pane, expand the **DIMETRA Systems** tab and click the radio system name.
DIMETRA settings appear, including Voice Dispatch settings.



2. On the right pane, click the **General** tab.
3. In the **Voice Dispatch Parameters** area, select the **Enable Voice Dispatch** check box.
4. (Optional) In the top right corner of the area, turn on the **Advanced** toggle to display all available settings.
5. Leave the values in the **Local Audio IP Address** and **Range for Audio Source Port** fields (visible if the **Advanced** toggle is turned on) unchanged.
6. (Optional) If licensed, in the **Ambience Listening Duration** area, set up the duration of incoming transmissions initiated by the command:

If...	Then...
To set up unlimited duration,	click Unlimited .

If...	Then...
To set up a timeout for incoming audio,	perform the following actions: <ol style="list-style-type: none"> 1. Select the unnamed option next to the counter field. 2. In the field, enter the timeout.

7. Synchronize DIMETRA Express and SmartPTT Express user accounts. For details, see [Configuring Associations between DIMETRA Express and SmartPTT Express User Accounts](#) p on page 99.
8. At the bottom of the area, click the **Sync** button.
Connection and synchronization with DIMETRA Express starts; when completes, a dialog box appears.
9. In the dialog box, confirm the successful synchronization.
10. On the Toolbar, click **Save configuration** .

4.8.3 CONFIGURING SECONDARY EXPRESS SERVER

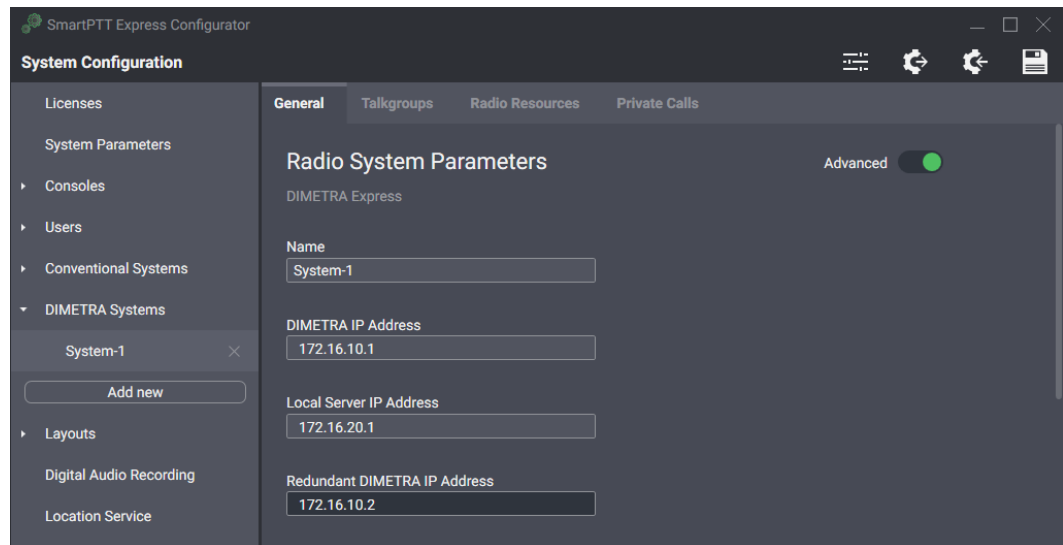
Follow the procedure to configure the connection and support of the Secondary Express Server. With that, you will have automatic switching between servers in case of temporary disaster with the Primary Express Server.


Prerequisites:

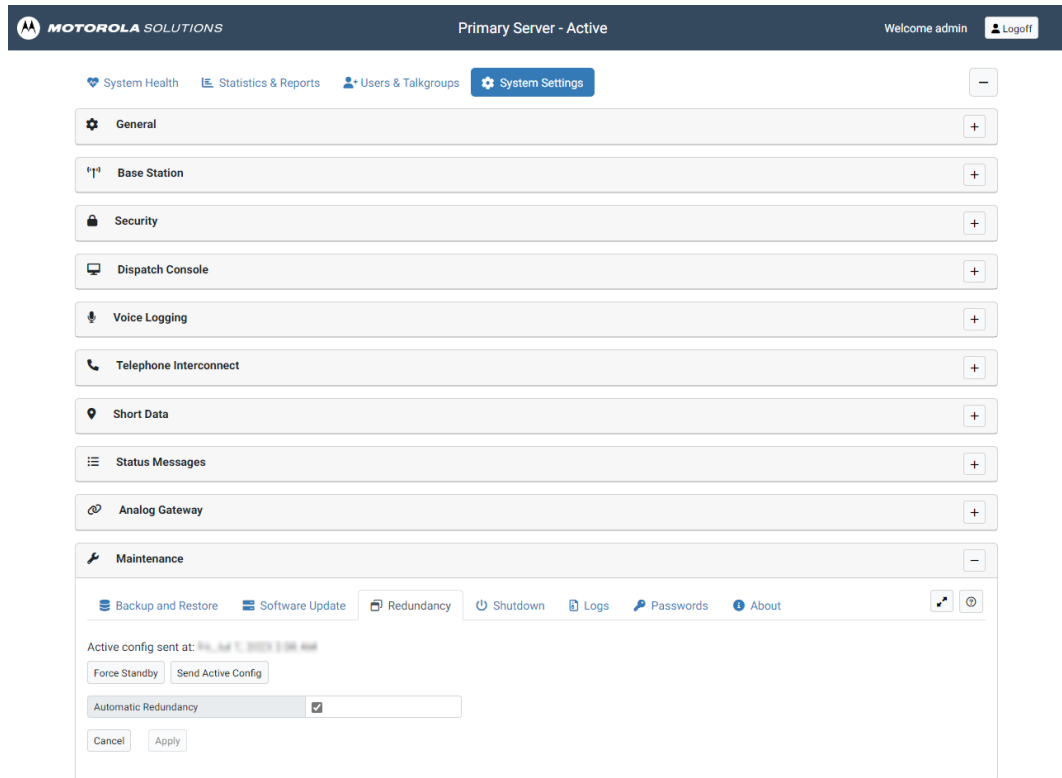
- Set up the Secondary Express Server using DIMETRA Network Manager.
- Authorize in the DIMETRA Network Manager of the Primary Express Server.


Process:

1. Configure the Secondary Express Server address:
 - a. In the Configurator, on the left pane, expand **DIMETRA Systems**, and click a child node.
DIMETRA settings appear.




- b. In the right pane, in the **Radio System Parameters** area, in the **Redundant DIMETRA IP Address** field, type the address of the Secondary Express Server.
 - c. On the Toolbar of the Configurator, click **Save Configuration** .
2. Sync with the Primary Express Server. For details, see [Getting Resources from DIMETRA Express](#) on page 94.
 3. Using the Network Manager, temporarily enable the Secondary Express Server:
 - a. Access the **Maintenance / Redundancy** section.
Redundancy settings appear.



- b. In the section, click **Force Active** to activate the Secondary Express Server.
 - c. Wait for approximately 2 minutes to ensure the Server is enabled.
 4. In the Configurator, on the **General** tab, in the **Voice Dispatch Parameters** section, click **Sync** to synchronize SmartPTT Server with the Secondary Express Server.
 5. Disable the Secondary Express Server:
 - a. In the Network Manager, access the **Maintenance / Redundancy** section.
 - b. In the section, click **Force Disable** to disable the Secondary Express Server.
 - c. Wait for approximately 2 minutes to ensure the Primary Express Server is enabled.
 6. On the Toolbar of the Configurator, click **Save Configuration** .

4.8.4 CONFIGURING ASSOCIATIONS BETWEEN DIMETRA EXPRESS AND SMARTPTT EXPRESS USER ACCOUNTS

Follow the procedure to associate DIMETRA Express user accounts with SmartPTT Express Client user accounts.

 Multiple SmartPTT Express Client user accounts can be assigned to a single DIMETRA Express user account, but only one of them can be authenticated simultaneously.

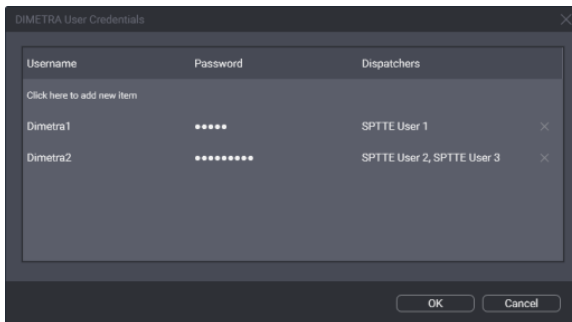
Prerequisites:


- Obtain DIMETRA Express user credentials. For details, see [DIMETRA Express Configuration](#) on page 34.
- Ensure that the installed license includes **Dispatcher Voice Channel**.
- Configure all the necessary SmartPTT users. For instructions, see [Adding and Editing Users](#) on page 91


Procedure:

1. In the Configurator, on the left pane, expand the **DIMETRA Systems** tab and click the radio system name.
The selected radio system settings appear on the right pane.
2. On the right pane, click the **General** tab.
3. In the **Voice Dispatch Parameters** area, click **DIMETRA User Credentials**.
The **DIMETRA User Credentials** window appears.

Account Relationships Table



4. In the window that appears, configure the relationships:
 - a. Perform one of the following actions:
 - To add a new association, click the **Click here to add new item entry** at the top of the table.
 - To edit an existing association, double click the required entry.
 - b. In the entry, in the **Username** column, type a DIMETRA Express console username, exactly as in DIMETRA Express. You can use the same name only once.
 - c. In the **Password** column, type the user password exactly as in DIMETRA Express.
 - d. (Optional) In the same column, press and hold **View Password**  to show password symbols and check their correctness.
 - e. In the **Dispatchers** column, from the list, select one or multiple SmartPTT Express Client users.
 - f. In the right part of the entry, click **OK**.
5. Repeat the previous step for other accounts.
6. In the **DIMETRA User Credentials** window, click **OK**.

7. On the Toolbar, click **Save configuration** .

4.8.5 ACTIVATING GROUP CALL DISPATCH

Follow the procedure to activate voice dispatch for talkgroups synced with DIMETRA. You do not need to enable this for private calls in SmartPTT.

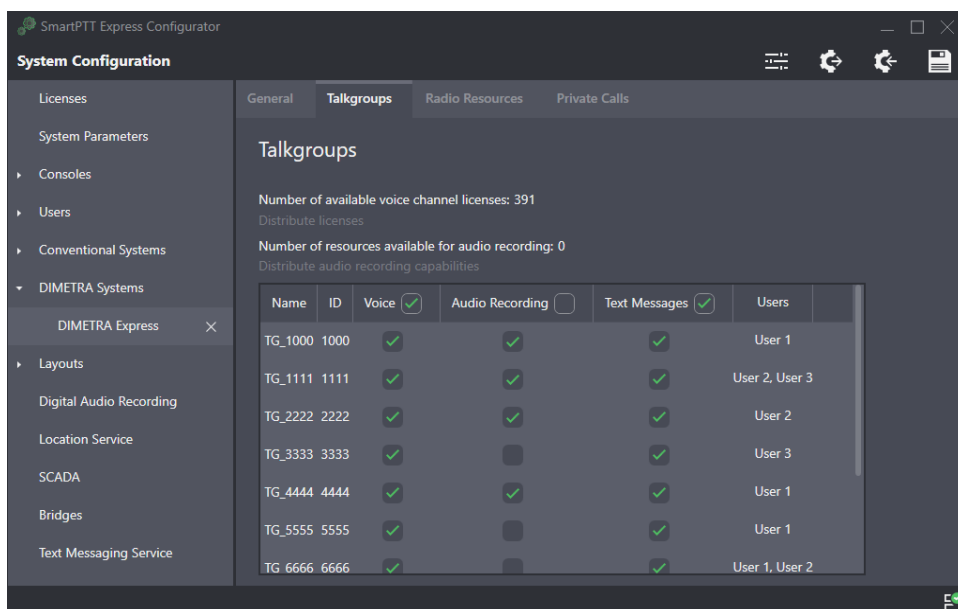
Prerequisites:

- Ensure you have enough Dispatcher Voice Channel licenses.
- Synchronize with DIMETRA Express. For details, see [Getting Resources from DIMETRA Express](#) on page 94.

Procedure:

1. In the Configurator, on the left pane, expand the **DIMETRA Systems** tab and click the radio system name.
2. In the right pane, click the **Talkgroups** tab.

DIMETRA talkgroups appear in the table view.



SmartPTT Express Configurator

System Configuration

General **Talkgroups** Radio Resources Private Calls

Talkgroups


Number of available voice channel licenses: 391
Distribute licenses


Number of resources available for audio recording: 0
Distribute audio recording capabilities

Name	ID	Voice <input checked="" type="checkbox"/>	Audio Recording <input type="checkbox"/>	Text Messages <input checked="" type="checkbox"/>	Users
TG_1000	1000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	User 1
TG_1111	1111	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	User 2, User 3
TG_2222	2222	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	User 2
TG_3333	3333	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	User 3
TG_4444	4444	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	User 1
TG_5555	5555	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	User 1
TG_6666	6666	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	User 1, User 2

3. On the tab, perform one of the following actions:

If...	Then...
To allow voice dispatch for all talkgroups,	in the header row of the table, select Voice .
To allow voice dispatch for selected talkgroups only,	perform the following actions: <ol style="list-style-type: none"> 1. Identify the required talkgroup by values in the Name and/or ID columns. 2. For the identified entry, in the Voice column select a check box.

 Number of available licenses is shown as the **Number of available voice channel licenses** parameter.

4. To enable voice dispatch for System-Wide Calls, perform the following actions:
 - a. In the **Name** column, find a resource named **SWC-TG**.
 - b. For the found entry, in the **Voice** column, select a check box.
5. (Optional) Configure SmartPT user access to resources. For instructions, see [Setting Up Allowed Users for DIMETRA Resources](#) on page 135.
6. On the Toolbar, click **Save configuration** .

4.8.6 ACTIVATING DISPATCH FOR DIMETRA ANALOG RESOURCES

Follow the procedure to set up voice capabilities for donor radios connected over CCGW. For non-DIMETRA resources, see [Connecting to Non-DIMETRA Analog Resources](#) on page 128.

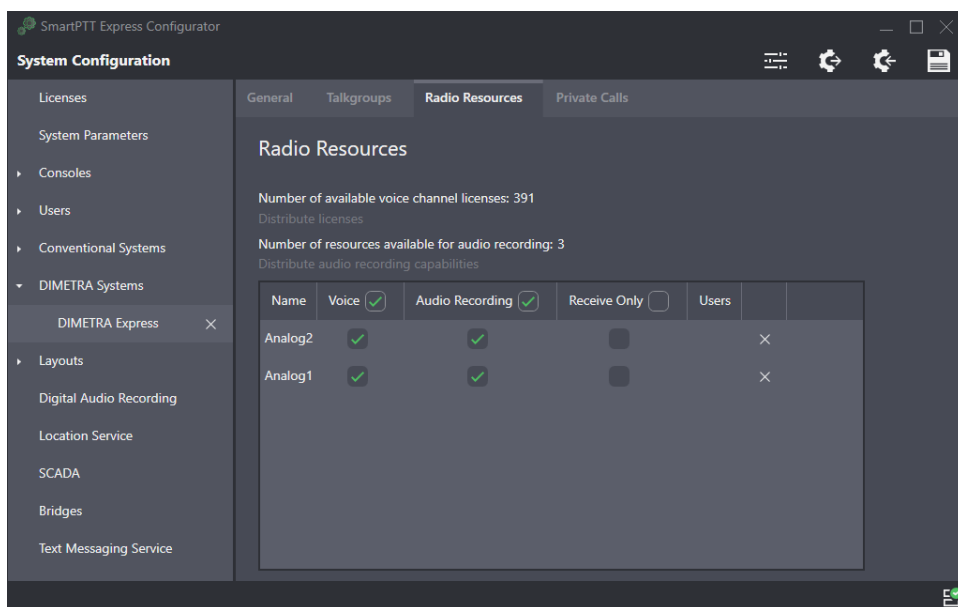
You can combine the procedure with the Receive only setup for radio resources. For instructions, see [Setting Up Receive Only for DIMETRA Analog Resources](#) on page 104.

Prerequisites: Load analog radio resources from DIMETRA. For instructions, see [Getting Resources from DIMETRA Express](#) on page 94.

Procedure:

1. In the Configurator, on the left pane, expand the **DIMETRA Systems** tab and click the radio system name.
2. On the right pane, click the **Radio Resources** tab.


List of analog radio resources appears.




3. On the tab, perform one of the following actions:

If...	Then...
To allow voice dispatch for all radio resources,	in the header row of the table, select Voice .

If...	Then...
To allow voice dispatch for selected radio resources only,	perform the following actions: <ol style="list-style-type: none"> 1. Identify the required radio resource by values in the Name column. 2. For the identified entry, in the Voice column select a check box.

 Number of available licenses is shown as the **Number of available voice channel licenses** parameter.

4. On the Toolbar, click **Save configuration** .

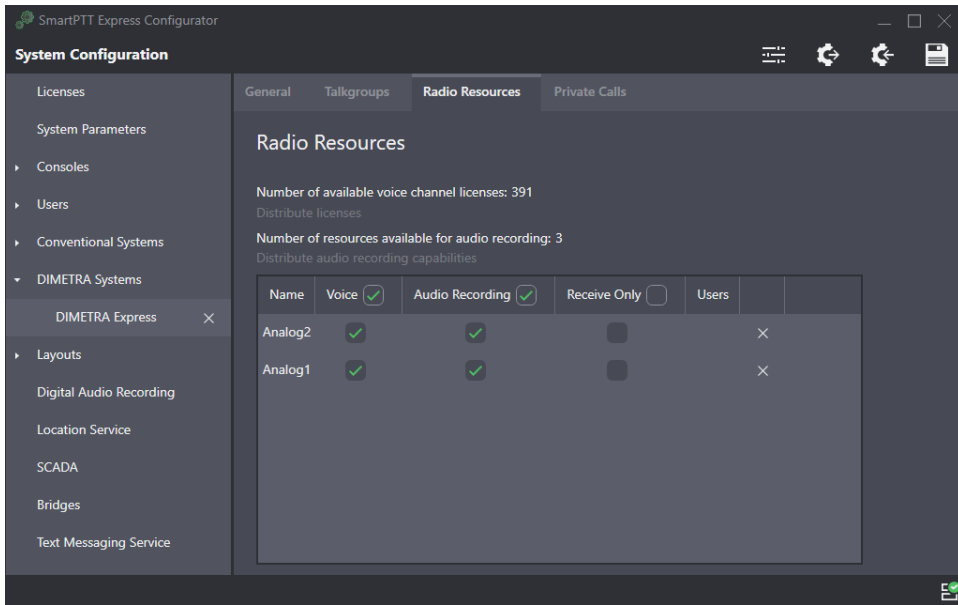
4.8.7 SETTING UP RECEIVE ONLY FOR DIMETRA ANALOG RESOURCES

Follow the procedure to limit voice capabilities of DIMETRA analog radio resources to Receive only. It is convenient to combine the procedure with the voice dispatch setup for those resources. For instructions, see [Activating Dispatch for DIMETRA Analog Resources](#) on page 102.

Prerequisites: Load analog radio resources from DIMETRA. For instructions, see [Getting Resources from DIMETRA Express](#) on page 94.

Procedure:

1. In the Configurator, on the left pane, expand the **DIMETRA Systems** tab and click the radio system name.
2. On the right pane, click the **Radio Resources** tab.
List of analog radio resources appears.




3. On the tab, perform one of the following actions:

If...	Then...
To activate the Receive Only mode for all analog radio resources,	in the header row of the table, select Receive Only .
To activate the Receive Only mode for selected analog resources,	perform the following actions: <ol style="list-style-type: none"> 1. Identify the required radio resource by values in the Name column. 2. For the identified entry, in the Voice column select a check box.

i Number of available licenses is shown as the **Number of available voice channel licenses** parameter.

4. Set up the Receive-only mode for radio resources:

5. On the Toolbar, click **Save configuration** .

4.9 DIMETRA VOICE LOGGING

DIMETRA Express provides a dedicated IP interface for voice logging. Therefore, SmartPTT requires additional configuration to use that interface and enable the functionality. The process includes the following actions:

- DIMETRA licenses purchase to enable the functionality in DIMETRA Express.
- SmartPTT licenses purchase to enable the functionality.
- SmartPTT connection to the DIMETRA Audio Interface Service (AIS). For instructions, see [Connecting to DIMETRA AIS](#) below.
- Records retention setup in the SmartPTT. For instructions, see [Configuring Voice Record Storage](#) on page 115.
- Per-resource voice logging enablement in SmartPTT. For details, see [Resource Access](#) on page 134.

Note the voice logging nuances in DIMETRA Express. Its license determines a number of concurrently captured voice calls to provide over the AIS interface. DIMETRA does not have tools to prioritize group/private transmissions logging.

4.9.1 CONNECTING TO DIMETRA AIS

Follow the procedure to connect to DIMETRA Express Voice Logger.

Prerequisites:

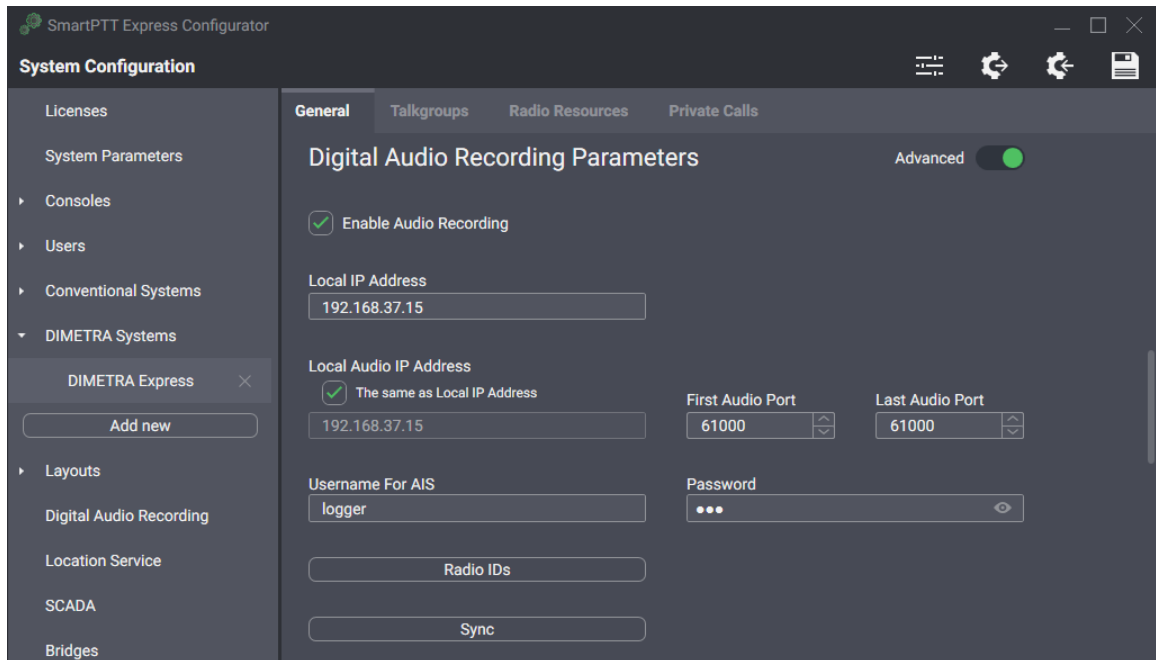
- Ensure that SmartPTT license includes **Digital Audio Recording**.

- Obtain the AIS IP address, port, and authentication credentials. For details, see [DIMETRA Express Configuration](#) on page 34.
- Determine radio subscribers whose voice calls require logging.


Process:

1. In SmartPTT Express Configurator, on the left pane, expand the **DIMETRA Systems** tab, and then select the radio system.
2. On the right pane, click the **General** tab.
3. In the **Digital Audio Recording Parameters** area, select the **Enable Audio Recording** check box.

Audio recording settings appear.



4. (Optional) In the top right corner of the **Digital Audio Recording Parameters** area, turn on the **Advanced** toggle to display all available settings.
5. Synchronize with DIMETRA over the AIS interface:

- a. In the **Local IP Address** field, enter the IP address configured as the external voice logger in DIMETRA Express.
 - b. In the **Username for AIS** field, type the external voice logger login exactly as configured in DIMETRA Express.
 - c. In the **Password** field, type the external voice logger password exactly as configured in DIMETRA Express.
 - d. Leave values in the **Local Audio IP Address**, **First Audio Port** and **Last Audio Port** (visible if the **Advanced** toggle is turned on) fields unchanged.
 - e. At the bottom of the area, click the **Sync** button.
Connection and synchronization with DIMETRA Express starts; when completes, the corresponding dialog box appears.
6. (Optional) Activate voice logging/recording for private voice calls. For instructions, see [Activating Voice Logging for Private Calls](#) below.
 7. On the Toolbar, click **Save configuration** .

4.9.2 ACTIVATING VOICE LOGGING FOR PRIVATE CALLS

Follow the procedure to set up which private calls require to be recorded and stored in SmartPTT. It is recommended to perform the procedure right after you connect SmartPTT to DIMETRA over the AIS interface.

Prerequisites:

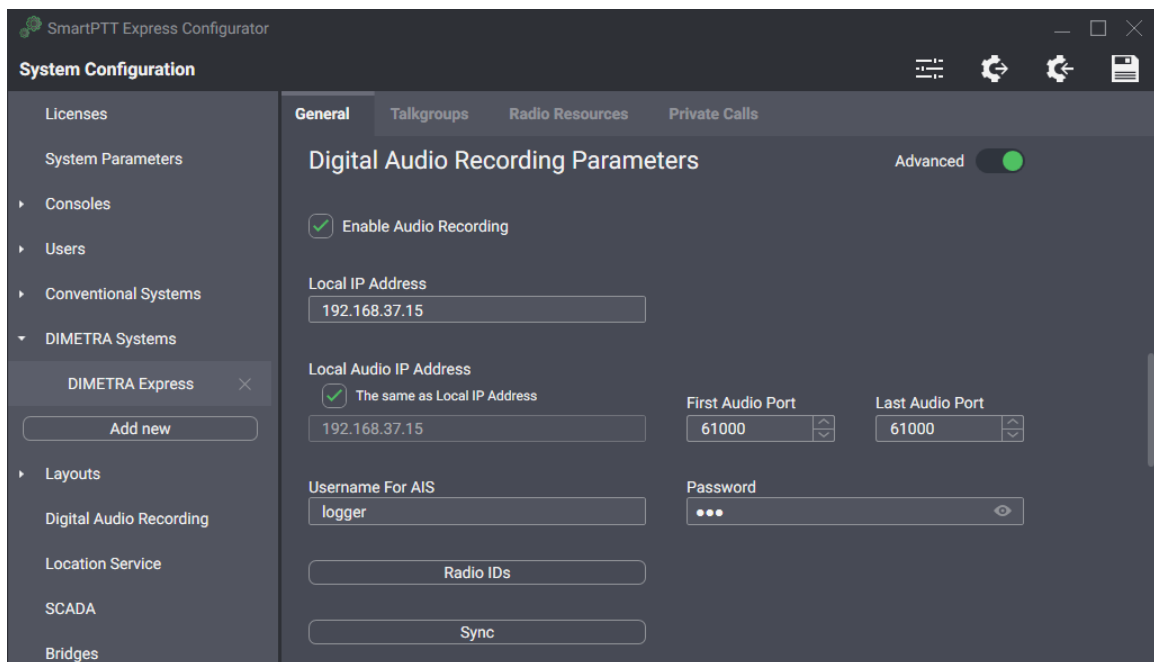
- Ensure you have enough Digital Audio Recording licenses.

- Connect to DIMETRA AIS interface. For instructions, see [Connecting to DIMETRA AIS](#) on page 106.
- Determine radio subscribers whose incoming and/or parallel voice calls require logging.

Procedure:

1. In the Configurator, on the left pane, expand the **DIMETRA Systems** tab, and then select the radio system.
2. On the right pane, click the **General** tab.

General DIMETRA connection settings appear (including voice recording settings).



3. On the tab, in the **Digital Audio Recording Parameters** area, click **Radio IDs**.

The **Radio IDs** window appears.



4. Perform one of the following actions:

If...	Then...
To activate voice logging for all radio subscribers,	in the bottom left of the window, click Select All .
To activate voice logging for selected radio subscribers,	perform the following actions: <ol style="list-style-type: none"> 1. In the list, find the required radio subscriber. Use the search field if needed. 2. Select a check box next to the required radio subscriber. 3. Repeat step 1 and 2 for other subscribers.

5. Click **OK** to apply changes and close the window.

4. On the Toolbar, click **Save configuration** .

4.9.3 ACTIVATING VOICE LOGGING FOR GROUP CALLS

Follow the procedure to activate voice logging for group calls. The configuration is provided separately from private voice call logging.

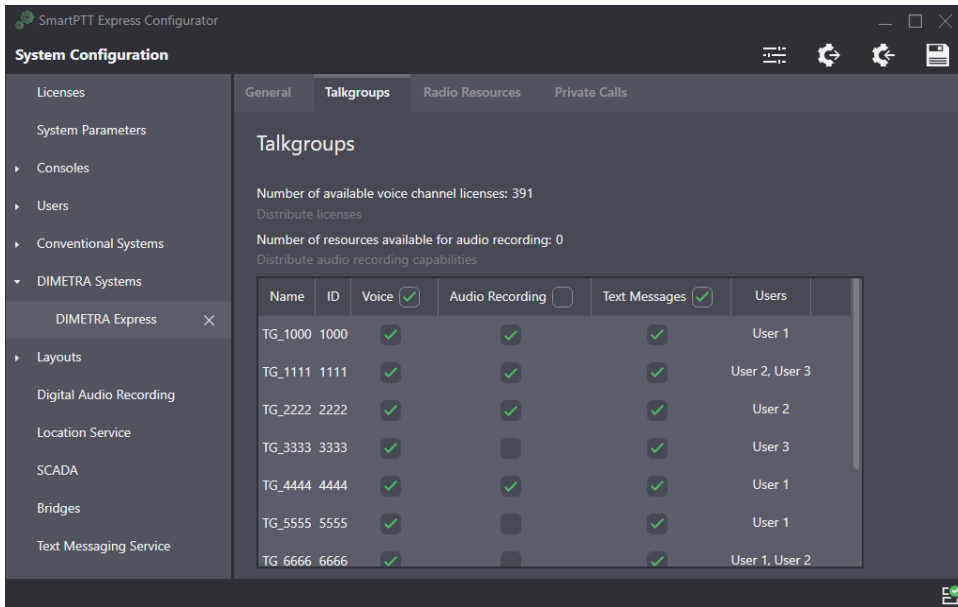
The configuration includes System-Wide Call setup as they are cases of group calls in all digital radio standards (TETRA, P25, DMR).

Prerequisites:

- Ensure you have enough Digital Audio Recording licenses.
- Synchronize with DIMETRA Express. For details, see [Getting Resources from DIMETRA Express](#) on page 94.

Process:


1. In the Configurator, on the left pane, expand the **DIMETRA Systems** tab and click the radio system name.
2. In the right pane, click the **Talkgroups** tab.
DIMETRA talkgroups appear in the table view.



3. On the tab, perform one of the following actions:

If...	Then...
To allow voice logging for all talkgroups,	in the header row of the table, select Audio Recording .
To allow voice recording for selected talkgroups only,	perform the following actions: <ol style="list-style-type: none"> Identify the required talkgroup by values in the Name and/or ID columns. For the identified entry, in the Audio Recording column select a check box.

i Number of available licenses is shown as the **Number of resources available for audio recording** parameter.

4. To enable voice logging for System-Wide All Call, perform the following actions:
 - a. In the Name column, find a resource named **SWC-TG**.
 - b. For the found entry, in the **Audio Recoding** column, select a check box.
5. (Optional) Configure operator access to available resources. For instructions, see [Setting Up Allowed Users for DIMETRA Resources](#) on page 135.
6. (Optional) Activate TMS for available resources. For instructions, see [Activating Group and Private TMS](#) on page 119.
7. On the Toolbar, click **Save configuration** .

4.9.4 ACTIVATING VOICE LOGGING FOR DIMETRA ANALOG RESOURCES

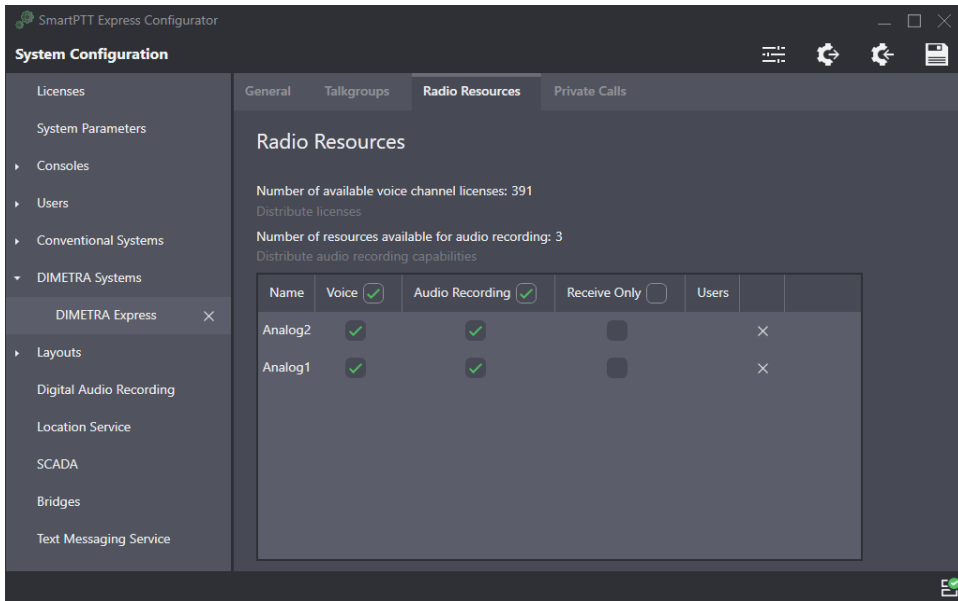
Follow the procedure to activate voice logging for DIMETRA analog radio resources. If required, you can combine the procedure with voice logging setup for DIMETRA groups calls and DIMETRA private calls.

Prerequisites:

- Ensure you have enough Digital Audio Recording licenses.
- Synchronize with DIMETRA Express. For details, see [Getting Resources from DIMETRA Express](#) on page 94.

Process:


1. In the Configurator, on the left pane, expand the **DIMETRA Systems** tab and click the radio system name.
2. In the right pane, click the **Radio Resources** tab.
DIMETRA radio resources appear.



3. On the tab, perform one of the following actions:

If...	Then...
To allow voice recording for all analog radio resources,	in the header row of the table, select Audio Recording .
To allow voice recording for selected radio resources,	perform the following actions: <ol style="list-style-type: none"> 1. Identify the required radio resource by values in the Name column. 2. For the identified entry, in the Audio Recording column select a check box.

i Number of available licenses is shown as the **Number of resources available for audio recording** parameter.

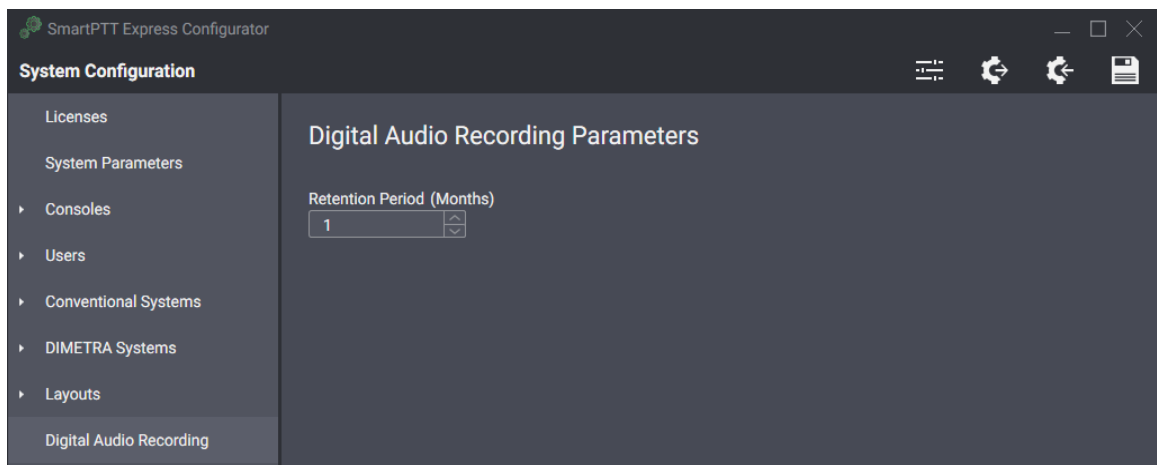
4. On the Toolbar, click **Save configuration** .


4.9.5 CONFIGURING VOICE RECORD STORAGE

Follow the procedure to configure voice record storage on the SmartPTT Server host.

Procedure:

1. In SmartPTT Express Configurator, on the left pane, click the **Digital Audio Recording** tab. Storage settings appear on the right pane.



2. On the right pane, in the **Retention Period** field, enter the timeout after which voice records will be deleted from the Audio Archive. Each month means “30 days”.
3. On the Toolbar, click **Save configuration** .

4.10 DIMETRA TMS CONFIGURATION

Configuration of text messaging support in SmartPTT Express includes the following actions:

- Short Data Transport Service setup in DIMETRA Express. For details, see [TMS Settings in DIMETRA](#) on page 38.

- Configuring text message transport between SmartPTT Express and DIMETRA Express. For details, see [Configuring SDTS Connection For TMS](#) below.
- Configuring text messaging service in SmartPTT Express. For details, see [Configuring Miscellaneous Messaging Parameters](#) on page 118.

Instructions that impact SmartPTT Express are available below.

4.10.1 CONFIGURING SDTS CONNECTION FOR TMS

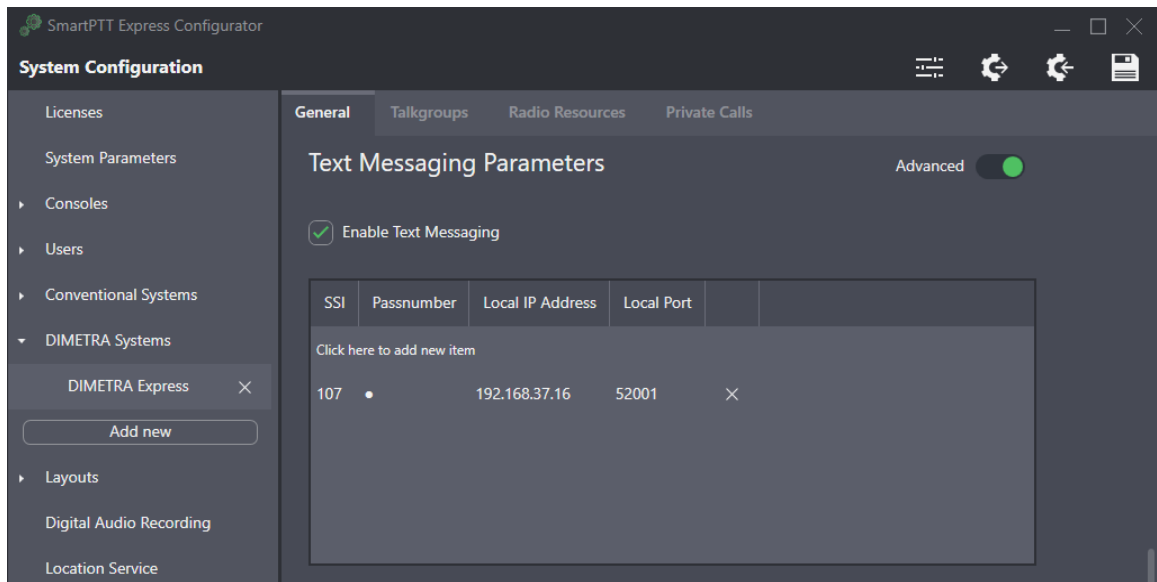
Follow the procedure to configure a connection to DIMETRA Express Short Data Service for sending and receiving text messages.

Prerequisites:

- Ensure that the installed license includes **Text Messaging**. For details, see [Installing License](#) on page 84.
- From DIMETRA Express, obtain Short Data Host IDs and pass numbers of DIMETRA user accounts used by dispatchers. For details, see [DIMETRA Express Configuration](#) on page 34.

Procedure:

1. In the Configurator, expand the **DIMETRA Systems** tab, and then click the radio system name.
2. On the right pane, click the **General** tab.
3. In the **Text Messaging Parameters** area, select the **Enable Text Messaging** check box. SDTS connection parameters appear.



4. For each SmartPTT Express Client user that will use text messaging, perform the following actions:

a. In the table, click **Click here to add new item**.

A new entry is added to the table.

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 pass number.

d. (Optional) In the top right corner of the area, turn on the **Advanced** toggle to display all available settings.

e. If appears, in the **Local IP Address** column, enter the SmartPTT Server IP address.

f. If appears, in the **Local Port** column, enter the SmartPTT Server port used to send and receive text messages.

g. In the rightmost column, click **OK**.

5. On the Toolbar, click **Save Configuration** .

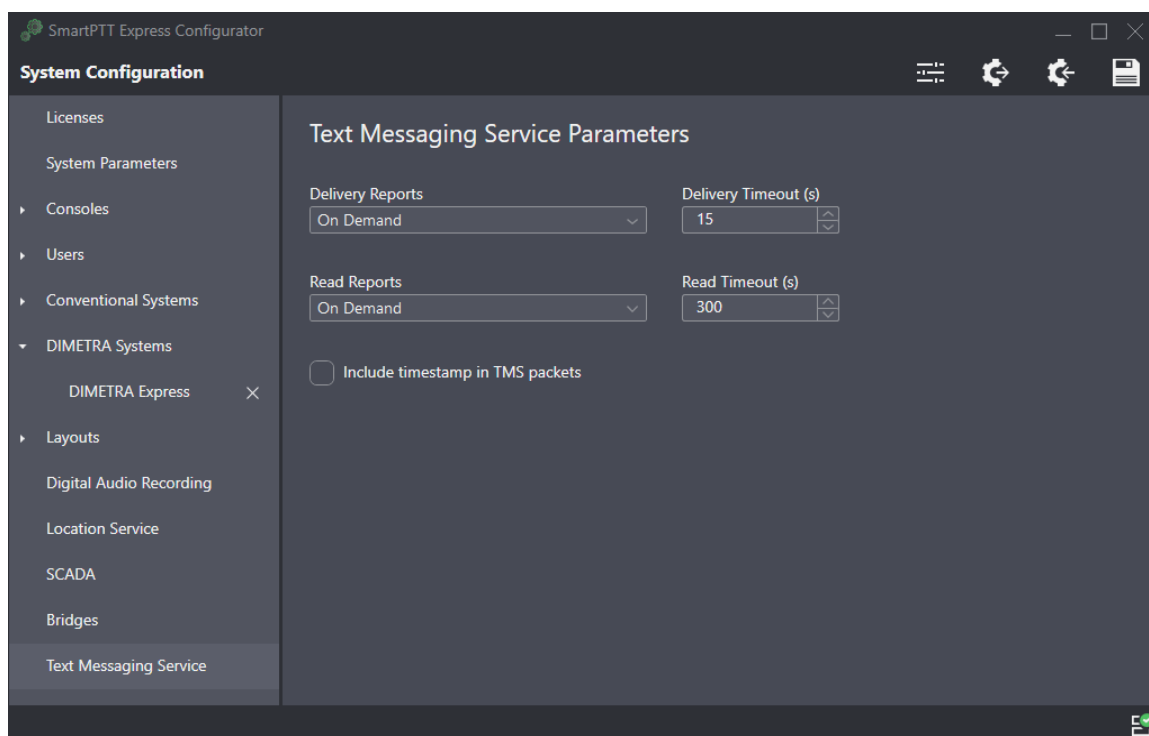
4.10.2 CONFIGURING MISCELLANEOUS MESSAGING PARAMETERS

Follow the procedure to configure text messaging delivery and read parameters.


Prerequisites: Ensure that the installed license includes **Text Messaging**. For details, see [Installing License](#) on page 84.

Procedure:

1. In SmartPTT Express Configurator, click the **Text Messaging Service** tab.
Text messaging service parameters appear on the right pane.



2. From the **Delivery Reports** list, select the required option for outgoing text messages:
 - To disable the delivery indication, select **Never**.
 - To enable delivery indication for all text messages, select **Always**.
 - To enable operator-controlled per-message delivery indication, select **On Demand**.

1. If **Always** or **On Demand** is selected in the previous step, in the **Delivery Timeout** field, enter a timeout for the SmartPTT to expect the delivery report.
2. From the **Read Reports** list, select the required option for outgoing text messages
 - To disable the read indication, select **Never**.
 - To enable the read indication for all text messages, select **Always**.
 - To enable operator-controlled per-message read indication, select **On Demand**.
3. If **Always** or **On Demand** is selected in the previous step, in the **Read Timeout** field, enter a timeout for the SmartPTT to expect the read reports.
4. Configure the timestamp to appear on the subscriber radio for text messages:
 - To show the message send time, select the **Include timestamp in TMS packets** check box.
 - To show the message delivery time, clear the **Include timestamp in TMS packets** check box.
5. On the Toolbar, click **Save Configuration** .

4.10.3 ACTIVATING GROUP AND PRIVATE TMS

Follow the procedure to enable group and private TMS. Activation is performed on per-resource basis and available only for DIMETRA resources (talkgroups and the Private Call resource).

Prerequisites:

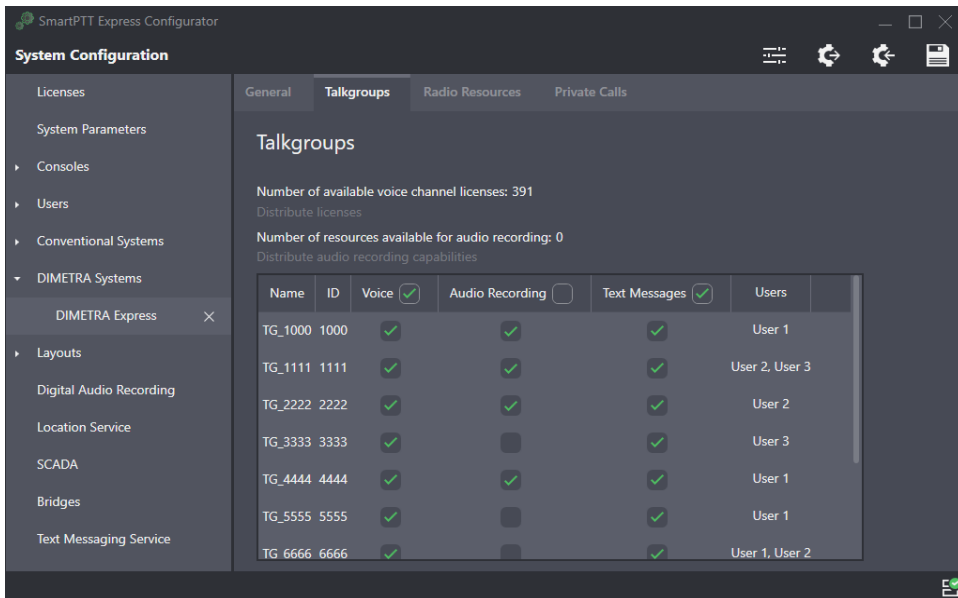
- Ensure you have enough Text Messaging licenses and at least one Dispatcher Voice Channel license.

- Synchronize with DIMETRA Express. For details, see [Getting Resources from DIMETRA Express](#) on page 94.

Process:

1. In the Configurator, on the left pane, expand the **DIMETRA Systems** tab and click the radio system name.
2. In the right pane, click the **Talkgroups** tab.

DIMETRA talkgroups appear.



3. On the tab, perform one of the following actions:

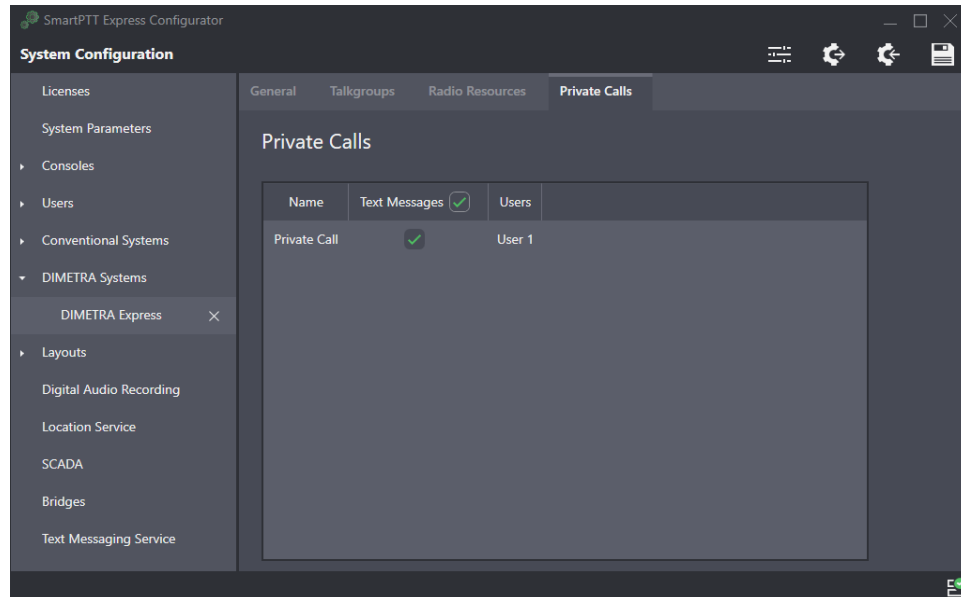
If...	Then...
To allow TMS for all talkgroups,	in the header row of the table, select Text Messages .

If...	Then...
To allow TMS for selected talkgroups,	perform the following actions: <ol style="list-style-type: none"> 3. Identify the required talkgroup by values in the Name and/or ID columns. 4. For the identified entry, in the Text Messages column select a check box.


4. Enable private TMS:

- a. Select the **Private Calls** tab.

Private Call resource settings appear.



- b. In the **Text Message** column, select a check box next to the only resource.

5. Optional: Configure user access to the digital resources (talkgroups and Private Call resource). For instructions, see [Setting Up Allowed Users for DIMETRA Resources](#) on page 135.
6. On the Toolbar, click **Save configuration** .

4.11 GPS LOCATION CONFIGURATION

Location services configuration in SmartPTT Express includes the following actions:

- Short Data Transport Service setup in DIMETRA. For details, see [GPS Settings in DIMETRA](#) on page 37.
- Map provider selection and configuration. For details, see [Map Providers](#) on page 55.
- Connection to DIMETRA Express Short Data Service. For details, see [Configuring SDTS Connection for GPS](#) below.
- Connection to the map provider and location database configuration. For details, see [Setting Up GPS Storage and Map Server](#) on page 125.

Instructions that impact SmartPTT Express are available below.

4.11.1 CONFIGURING SDTS CONNECTION FOR GPS

Follow the procedure to configure a connection to DIMETRA Express Short Data Service for receiving radio user coordinates.

Prerequisites:

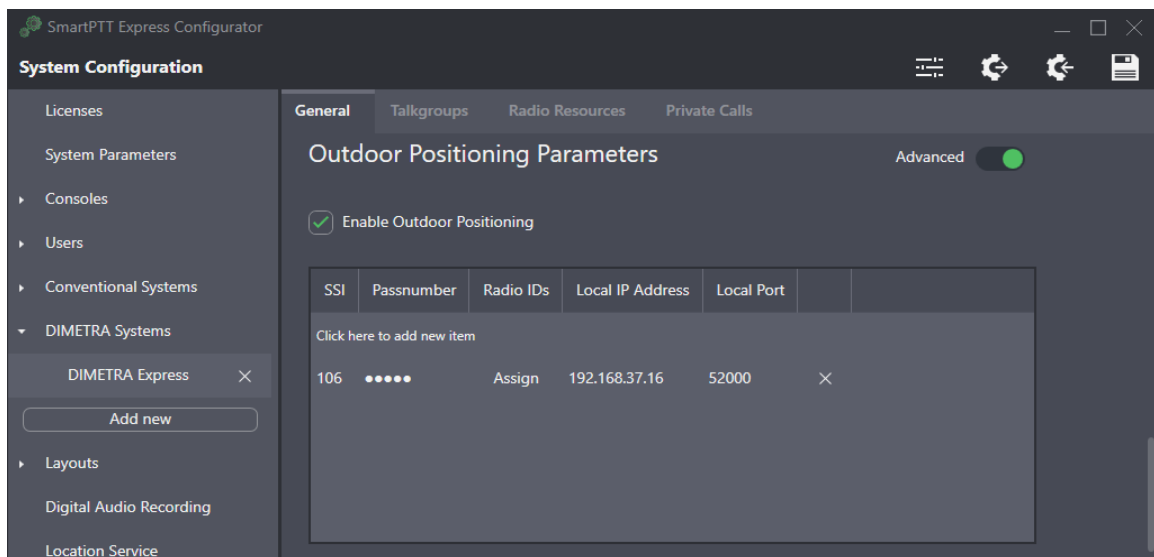
- Ensure that the installed license includes **Outdoor Positioning Services**. For details, see [Installing License](#) on page 84.

- From DIMETRA Express, obtain the Short Data Host ID(s) to which radios report their coordinates and the corresponding passnumber(s). For details, see [DIMETRA Express Configuration](#) on page 34.


Procedure:

6. In the Configurator, expand the **DIMETRA Systems** tab, and then click the configured system.
7. On the right pane, click the **General** tab.
8. In the **Outdoor Positioning Parameters** area, select the **Enable Outdoor Positioning** check box.

SDTS connection settings appear in the table below.



6. Perform one of the following actions:
 - To add a new entry, click the **Click here to add new item** button.
 - To edit an existing entry, double click it in the table.
7. Set up authentication parameters:

- a. In the entry, in the **SSI** column, enter a Short Data Host ID configured in DIMETRA Express.
 - b. In the **Passnumber** column, enter the pass number of the corresponding Short Data Host in DIMETRA Express.
8. In the **Radio IDs** column, set up radio subscribers that shall report their GPS location:
 - a. Click **Assign**.
The **Radio IDs** window appears.
 - b. In the window that appears, select radio subscribers.
 - c. Click **OK** to accept changes and close the window.
9. (Optional) Configure dedicated server interface for required entries:
 - a. In the top right corner of the area, turn on the **Advanced** toggle to display all available settings.
 - b. In the **Local IP Address** column (visible if the **Advanced** toggle is turned on), enter the SmartPTT Server IP address.
 - c. In the **Local Port** column (visible if the **Advanced** toggle is turned on), enter the SmartPTT Server port used to receive radio user location updates.
 - d. In the rightmost column, click **OK**.
10. On the Toolbar, click **Save Configuration** .

Postrequisites: Repeat the procedure to add more Short Data Hosts. This is required if radios in the system are configured to report their location to different Short Data Hosts.

4.11.2 SETTING UP GPS STORAGE AND MAP SERVER

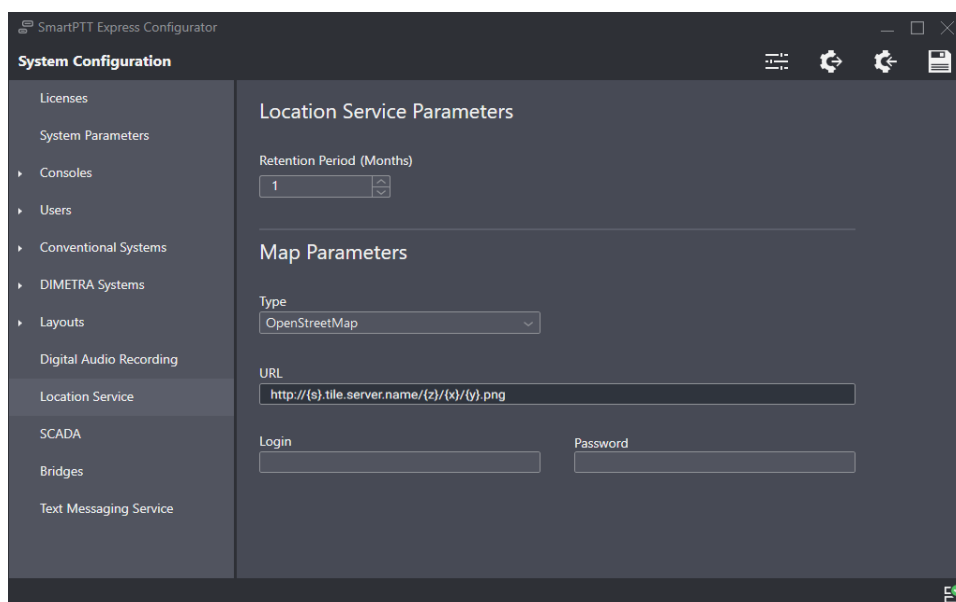
Follow the procedure to configure outdoor location service in SmartPTT Express that includes map provider access and the period of coordinates retention in the database.

Prerequisites:

- Ensure that the installed license includes **Outdoor Positioning Services**. For details, see [Installing License](#) on page 84.
- Determine the retention period for radio user coordinates.
- Determine map provider parameters. For details, see [Map Providers](#) on page 55.

Procedure:

1. In SmartPTT Express Configurator, on the left pane, click the **Location Service** tab. Location settings appear on the right pane.



2. On the right pane, in the **Retention period** field, enter the retention period (in months) for location data.

3. In the **Map Parameters** area, from the Type list, select the proper map type:
 - To use OSM maps deployed on HTTP server, select **OpenStreetMap**.
 - To use OSM maps deployed as PNG files group by directories, select **Local Map Atlas**.
4. Depending on the OSM type configured in the previous step, in the URL field, enter the proper URL. For guidelines, see [Map Providers](#) on page 55.
5. For maps available from HTTP servers, configure the proper authentication type:

If...	Then...
To connect to servers without an authentication,	leave the Login and Password fields empty.
To connect to servers with HTTP BASIC authentication,	perform the following actions: <ol style="list-style-type: none"> 1. In the Login field, type the required user login. 2. In the Password field, type the required user password. 3. (Optional) Press and hold Show Password to check the password.
To connect to servers with credentials provided over the URL,	perform the following actions: <ol style="list-style-type: none"> 1. In the Login field, enter an authentication parameter that is masked in the ULR with the {login} mask.

If...	Then...
	2. In the Password field, enter an authentication parameter that is masked in the URL with the {password} mask.

6. On the Toolbar, click **Save Configuration** .

4.12 NON-DIMETRA RESOURCES SETUP

Non-DIMETRA radio systems include connections to base/control stations (a.k.a. donor radios) over RG-2000 and RG-1000E. The functionality is described in the following sections:

- [Analog Radio Resources](#) on page 24
- [RG-2000E Support](#) on page 29
- [Patching and Bridging](#) on page 26

The scope of configuration includes the following:

- RG-2000/RG-1000E configuration. For details, see [RG-2000 Configuration](#) on page 42.
- Connection to donor radios over RG-2000/RG-1000E. For instructions, see [Connecting to Non-DIMETRA Analog Resources](#) on page 128.
- Bridges setup between the configured donor radios (analog resources). For instructions, see [Configuring Bridges](#) on page 132.


Instructions that impact SmartPTT Express are available below.

4.12.1 CONNECTING TO NON-DIMETRA ANALOG RESOURCES

Follow the procedure to configure the connection to donor radios available over RG-2000 and/or RG-1000E.

Prerequisites:

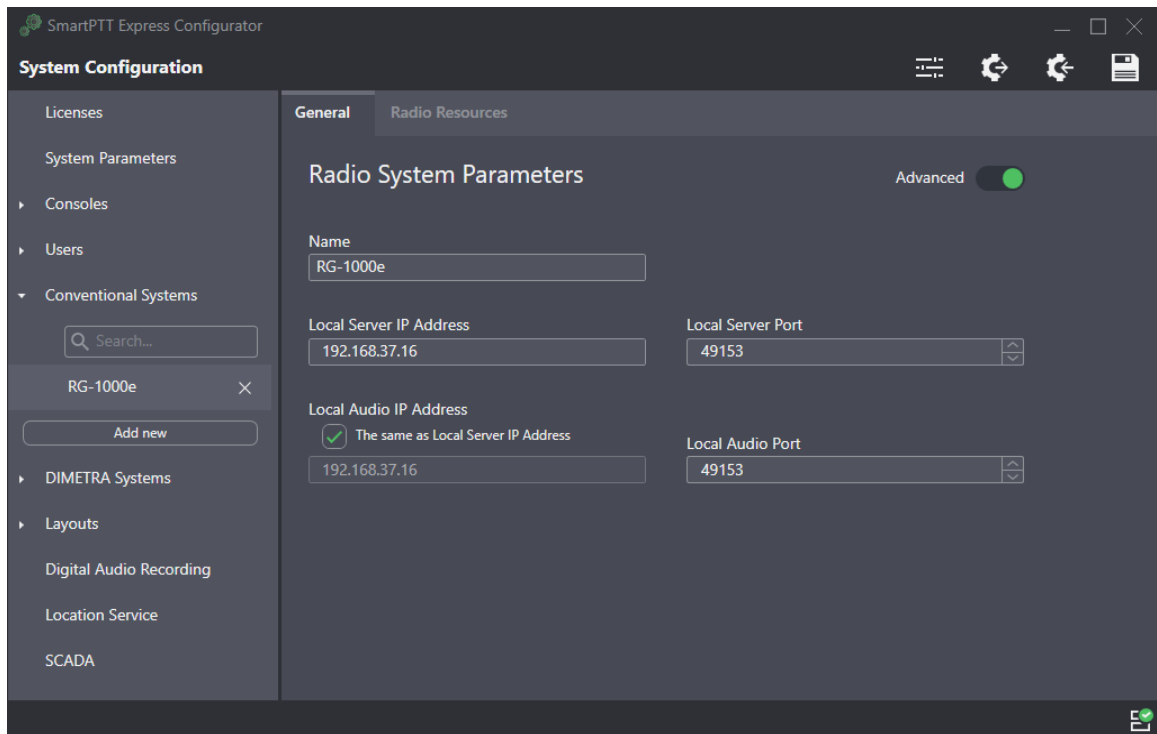
- Ensure that the installed SmartPTT license includes Wireless Gateways, Dispatcher Voice Channel, and (if required) Digital Audio Recoding.
- Configure RG-2000 or RG-1000E. For details, see [RG-1000E Configuration](#) on page 42.

 As mentioned in [RG-2000 Configuration](#) on page 42, approach to RG-2000 configuration is the same as for RG-1000E.

Procedure:

1. In SmartPTT Express Configurator, on the left pane, expand the **Conventional Systems** tab.
2. Perform one of the following actions:
 - To add a new local interface to RG-2000/RG-1000E, click **Add new**.
 - To edit an existing local interface, click the corresponding item in the expanded list.
3. On the right pane, click the **General** tab.

Server interface settings appear for RG-2000/RG-1000E connection.

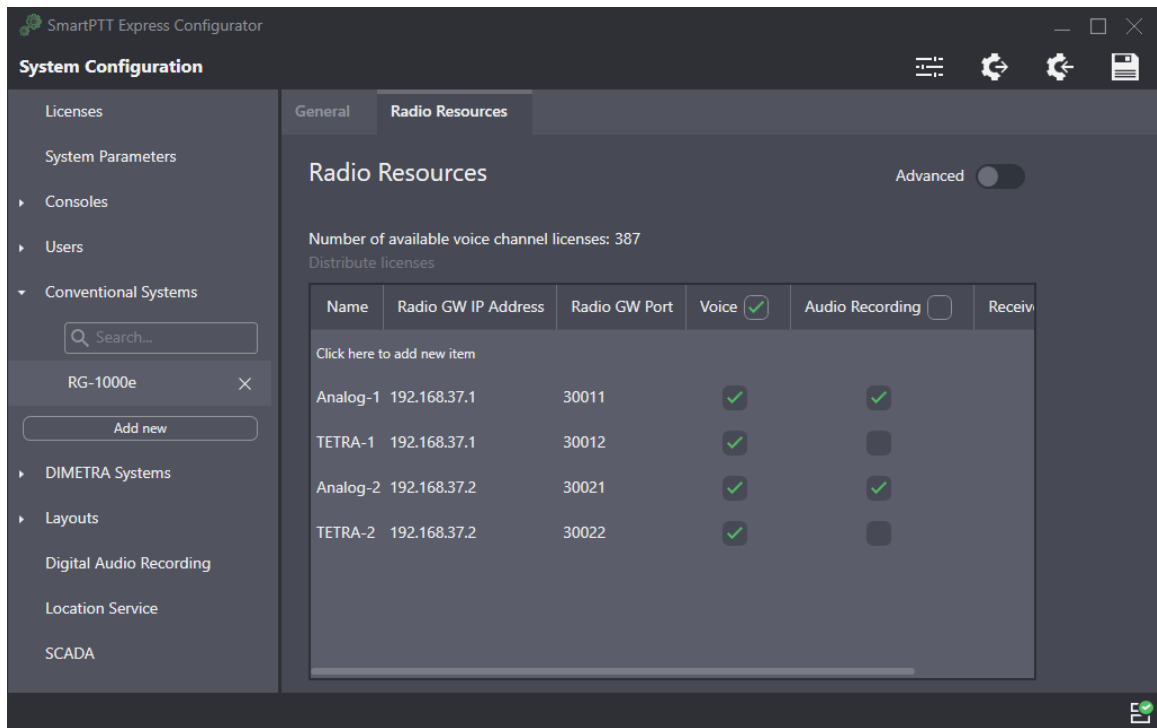


4. In the tab, configure the interface:

- a. In the **Name** field, type the name of the local interface.
- b. (Optional) In the top right corner of the right pane, turn on the **Advanced** toggle to display all available settings.
- c. In the **Local Server IP Address** field, enter the IP address of the SmartPTT Server intended for control interface to donor radios.
- d. In the **Local Server Port** field, enter the port number of the SmartPTT Server intended for control interface to donor radios.
- e. With the **Local Audio IP Address** parameter (responsible for audio interface to donor radios), perform one of the following actions:

If...	Then...
To use the same IP address as for the control interface,	select Same as local Server IP address .
To use a dedicated IP address,	perform the following actions: <ol style="list-style-type: none"> 1. Clear Same as local Server IP address. 2. In the field below the check box, enter the IP address.

- f. In the **Local Audio Port** field, enter the UPD port of the Server intended for voice/audio interface to donor radios.
5. Click the **Radio Resources** tab.
Donor radio table appears on the right pane.




6. In the table with resources, perform one of the following actions:

- To add a new resource, click the **Click here to add new item** button.
- To edit an existing resource, double click the corresponding entry.

7. Configure the resource interface:

- a. (Optional) In the top right corner of the area, turn on the **Advanced** toggle to display all available settings.
- b. In the **Name** column, type the resource name.
- c. In the **Radio GW IP Address** column, type the IP address allocated in RG-2000/RG-1000E for the required donor radio.
- d. In the **Radio GW Port** column, type the port number allocated in RG-2000/RG-1000E for the required donor radio.

8. Set up the resource handling in the SmartPTT:

- To allow voice communications for the resource, select the check box in the **Voice** column.
 - To prevent operators from transmitting to a resource, select a check box in the **Receive Only** column.
 - To allow inbound and outbound calls to be logged for the resource, select the check box in the **Audio Recording** column.
9. (Optional) Set up user access to the resource. For instructions, see [Setting Up Non-DIMETRA Resource Access](#) on page 139.
 10. On the Toolbar, click **Save Configuration** .

4.12.2 CONFIGURING BRIDGES

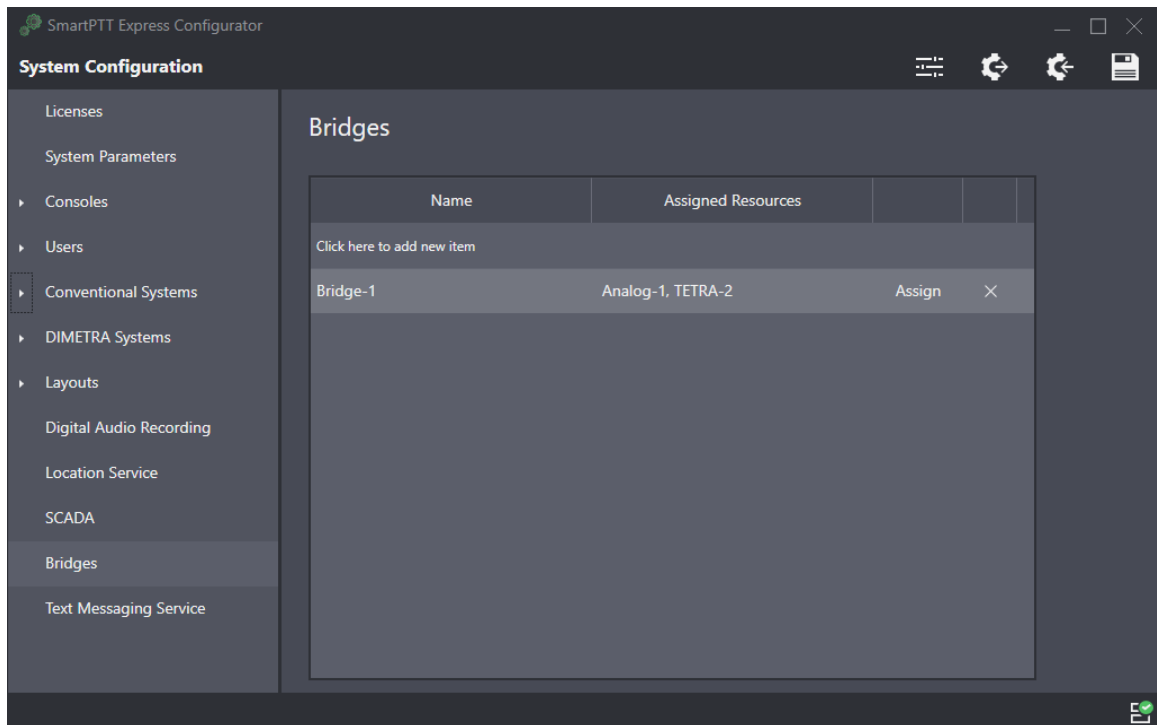
Follow the procedure to configure a bridge between radio resources connected to RG-1000e gateways. The configured bridges will be available to Console users in the **Patch Monitor** panel.

Prerequisites:

- Ensure that the installed license includes **Wireless Gateways** and **Radio System Interconnect**.
- Configure RG-1000E connection. For details, see [Connecting to Non-DIMETRA Analog Resources](#) on page 128.

Procedure:

1. In SmartPTT Express Configurator, on the left pane, click the **Bridges** tab.
Bridges table appears on the right pane.



2. Perform one of the following actions:

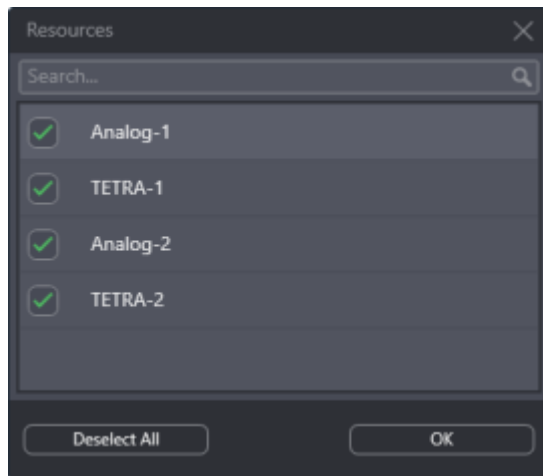
- To add a bridge, click **Add here to add new item**.
- To edit an existing bridge, double click the required entry.
- To delete a bridge, in the rightmost column of the corresponding entry, click Delete (×).


3. In the **Name** column, enter the bridge name (should be unique and up to 16 character long).

4. Assign radio resources to the bridge:

- a. In the **Assigned Resources** column, click **Assign**.

The **Resources** window appears.



- b. Select check boxes next to desired radio names to include them in the bridge.
 - c. At the bottom of the window, click **OK**.
5. In the rightmost column of the bridges table, click **OK**.
 6. On the Toolbar, click **Save Configuration** .

4.13 RESOURCE ACCESS

Resource access means provision of SmartPTT user access to analog and digital resources.

By this stage, the following actions are recommended to finish:

- All users are added to the SmartPTT.
- All resources are loaded from DIMETRA.
- All non-DIMETRA radio resources are configured.

The access can be configured per user and/or per resource. “Per user” means that you access user settings and specify resources that shall be available to them. “Per resource” means that you access resources settings and specify what users will have access to it.

4.13.1 SETTING UP ALLOWED USERS FOR DIMETRA RESOURCES

Follow the procedure to set up users who will have access to a resource on a per-resource basis. The procedure includes the configuration of both voice and data calls.

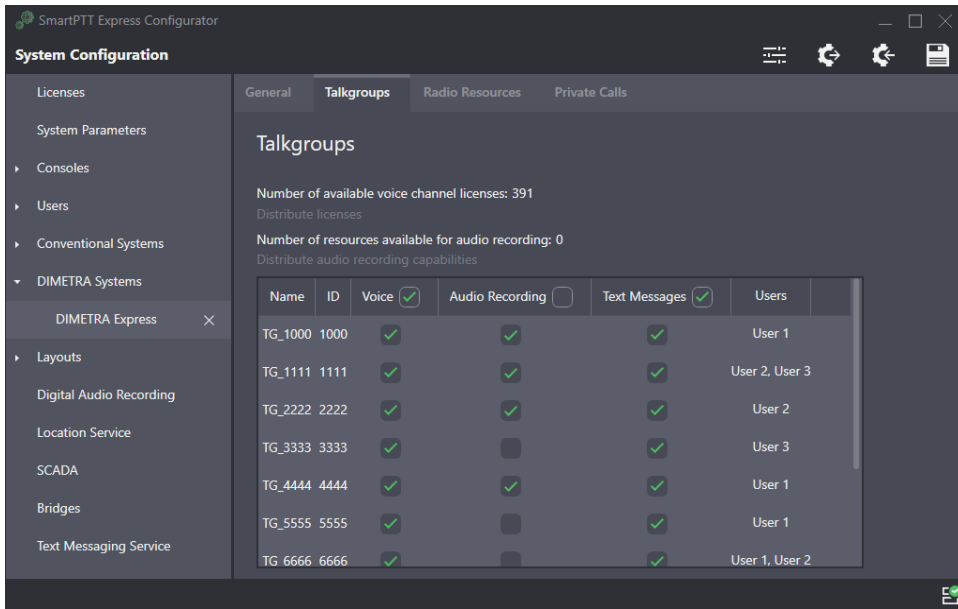
Alternatively, you can set up available resources on a per-user basis. For instructions, see [Setting Up Available Resources for Users](#) on page 140.

Prerequisites:

- Ensure you have at least one Dispatcher Voice Channel license. Without it, you cannot assign digital resources to SmartPTT users.
- Synchronize with DIMETRA Express. For details, see [Getting Resources from DIMETRA Express](#) on page 94.
- Add all the necessary users. For instructions, see [Adding and Editing Users](#) on page 91.

Procedure:

1. In the Configurator, on the left pane, expand the **DIMETRA Systems** tab and click the radio system name.
2. In the right pane, click the **Talkgroups** tab.
DIMETRA talkgroups appear in the table view.



3. For each of the required talkgroup, perform the following actions:

a. Identify the required talkgroup using information in the **Name** and **ID** columns.

b. For the identified talkgroup, in the **Users** column, click the current cell.

List of users appears.

c. For users in the list, perform the following actions:

- To allow user access to the resource, select check boxes next to the username.

- To deny user access to the resource, clear check box next to the username.

4. Configure System-Wide Call access:

a. In the **Name** field of the table, identify a resource named **SWC-TG**.

b. For the resource, in the **Users** column, click the current cell.

List of users appears.

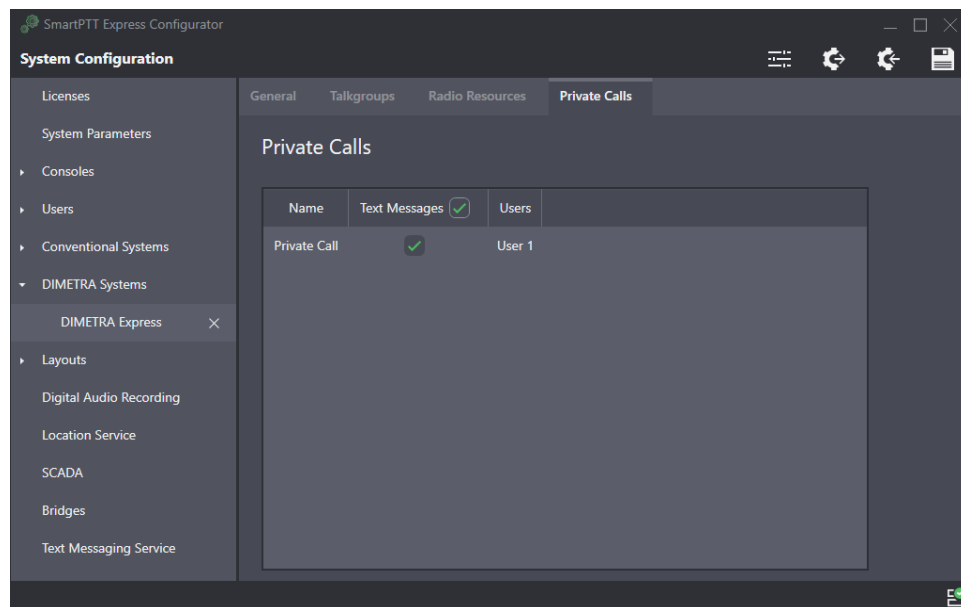
c. For users in the list, perform the following actions:

- To allow user access to the resource, select check boxes next to the username.
- To deny user access to the resource, clear check box next to the username.

5. Set up the Private Call access:

- On the right pane, click the **Private Calls** tab.

Private Call resource appears.



- In the table, in the **Users** column, click the cell.

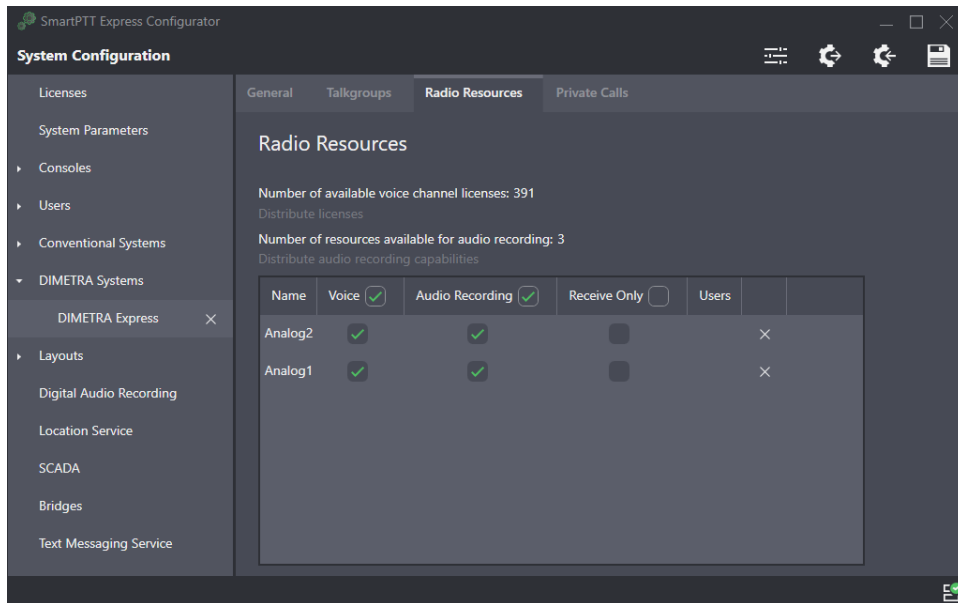
List of users appears.

- For users in the list, perform the following actions:

- To allow user access to the resource, select check boxes next to the username.
- To deny user access to the resource, clear check box next to the username.

6. On the right pane, click the **Radio Resources** tab.

Analog radio resources appear.



7. For each of analog radio resources, perform the following actions:

a. Identify the required radio resource using information in the **Name** column.

b. For the identified radio resource, in the **Users** column, click the current cell.
List of users appears.

c. For users in the list, perform the following actions:

- To allow user access to the resource, select check boxes next to the username.
- To deny user access to the resource, clear check box next to the username.


8. On the Toolbar, click **Save configuration** .

4.13.2 SETTING UP NON-DIMETRA RESOURCE ACCESS

Follow the procedure to configure the connection to donor radios available over RG-2000 and/or RG-1000E.

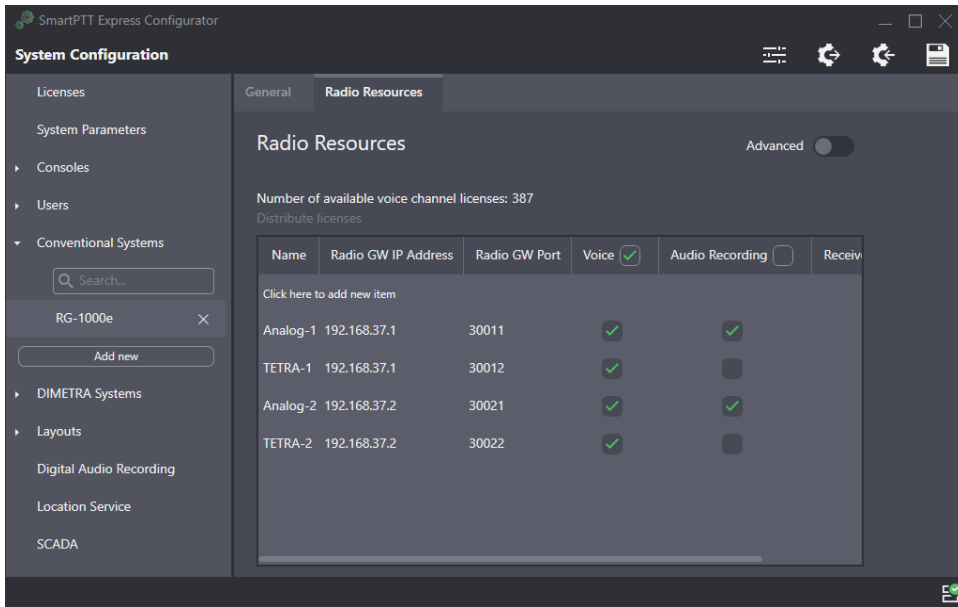
Prerequisites:


- Ensure that the installed SmartPTT license includes Wireless Gateways, Dispatcher Voice Channel, and (if required) Digital Audio Recoding.
- Configure RG-2000 or RG-1000E. For details, see [RG-1000E Configuration](#) on page 42.

 As mentioned in [RG-2000 Configuration](#) on page 42, approach to RG-2000 configuration is the same as for RG-1000E.

Procedure:

1. In the Configurator, on the left pane, expand the **Conventional Systems** tab, and click the required server interface.
2. In the right pane, click the **Radio Resources** tab.
Donor radio table appears on the right pane.



3. For each of the required resources, perform the following actions:
 - a. In the table, identify the required radio resource by its name in the **Name** column.
 - b. For the identified talkgroup, in the **Users** column, click the current cell.
List of users appears.
 - c. For users in the list, perform the following actions:
 - To allow user access to the resource, select check boxes next to the username.
 - To deny user access to the resource, clear check box next to the username.
4. On the Toolbar, click **Save configuration** .

4.13.3 SETTING UP AVAILABLE RESOURCES FOR USERS

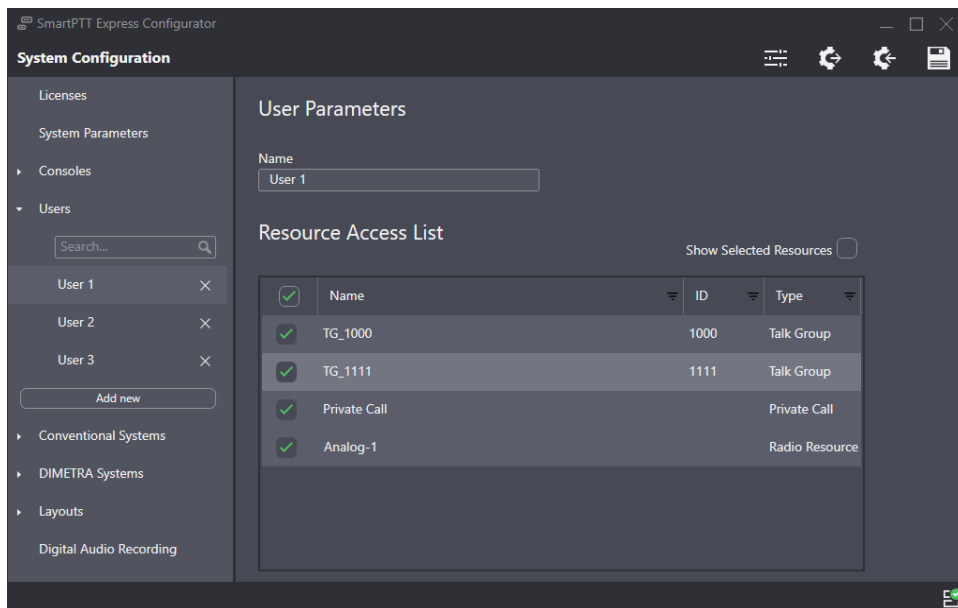
Follow the procedure to set up talkgroups resources and analog radio resources on per-user basis. Alternatively, you can set up user access to resources on a per-resource basis.

Prerequisites:

- Load DIMETRA resources. For instructions, see [Getting Resources from DIMETRA Express](#) on page 94.
- Configure necessary non-DIMETRA resources. For instructions, see [Connecting to Non-DIMETRA Analog Resources](#) on page 128.
- Add all the necessary SmartPTT users. For instructions, see [Adding and Editing Users](#) on page 91.


Procedure:

1. In the Configurator, on the left pane, expand the **Users** tab and select the required user. User settings appear.




2. In the **Resource Access List** area, clear the **Show Selected Resources** check box to be able to set available resources for users.
3. In the table, identify the required resource:

If...	Then...
To filter out shown resources by types,	perform the following actions: <ol style="list-style-type: none"> 1. In the Type column, click Filter. 2. In the window that appears, select check boxes for resource types that must be shown. 3. In the same window, clear check boxes for resource types that must be hidden.
To filter out shown resources by their names,	perform the following actions: <ol style="list-style-type: none"> 1. In the Name column, click Filter. 2. In the Filter by Keyword field that appears, enter a full or partial name of required resources.
To filter out shown resources by their IDs (GSSI and ISSI),	perform the following actions: <ol style="list-style-type: none"> 1. In the ID column, click Filter. 2. In the Filter by Keyword field that appears, enter a full or partial ID of required resources.

 To find and set up user access to System-Wide Call, search the Talkgroup-type resources with the named **SWC-TG**.

4. With the filtered resources, perform one of the following actions:
 - To allow user access to some filtered resources, in the first column of the table (unnamed), select check boxes that correspond to the required resource names.
 - To deny user access to some filtered resources, in the first column of the table (unnamed), clear check boxes that correspond to the required resource names.
 - (Optional) To allow user access to all filtered resources, select the unnamed check box in the first column of the table.
 - (Optional) To deny user access to all filtered resources, clear the unnamed check box in the first column of the table.

5. On the Toolbar, click **Save configuration** .

Postrequisites: Repeat the procedure to configure access settings for other users.

4.14 EXPORTING CONFIGURATION

Follow the procedure to export SmartPTT Express configuration to a file. You can use the file as a backup.

Prerequisites: Log on to the Configurator.

Procedure:


1. In the Configurator, on the Toolbar, click **Backup configuration**.
A dialog box appears.
2. In the dialog box, specify the desired path to the file.
3. In the **File Name** field, enter the name of the exported file. Then click **Save**.

Postrequisites: Ensure that the exported file is stored on another physical disk.

4.15 ACTIVATING EXTENDED LOGGING

Extended logging provides the ability to identify root causes of some problems that occur in demo environment as well as at the deployment phases of projects. Follow the procedure to activate such kind of logging in the product.

Prerequisites: Install an advanced text editor (Notepad++, Visual Studio Code, or other).

 Notepad editor does not fit the goal of this procedure.

Procedure:

1. Run the text editor as administrator.
2. In the editor, open the file **C:\Program Files\SmartPTT Express\Server\releases\2.#.#\sys.config**
3. In the file, modify the line #22 in the following way:
 - Before: `{level, warning },`
 - After: `{level, debug },`
4. Modify the line #29 in the following way:
 - Before: `{log_level, warning }`
 - After: `{log_level, debug }`
5. Save the file.
6. If running, restart the Server.



Chapter 5: Maintenance & Re-Installation

This chapter describes the actions involved in SmartPTT Express maintenance, reconfiguration, and removal.

5.1 EDITING LAYOUT AVAILABILITY SETTINGS

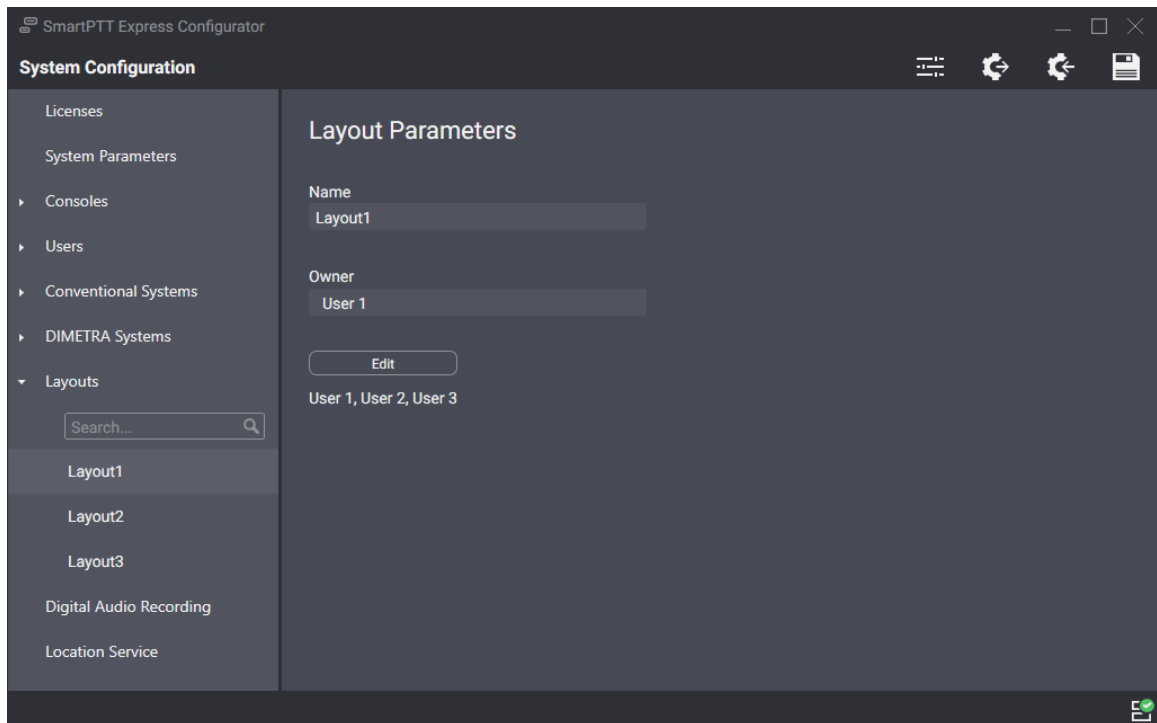
Follow the procedure to edit the list of SmartPTT users that have access to layouts.

Prerequisites: Create and configure layouts using SmartPTT Express Client. For details, see “Layout Configuration” in *SmartPTT Express User Guide*.

Procedure:

1. In SmartPTT Express Configurator, on the left pane, expand the **Layouts** tab, and then click the desired layout.

Layout settings appear on the right pane.



2. On the right pane, click **Edit**.

The **Users** window appears.

3. (Optional) In the search field enter a part of the required username.

Only the users whose names contain the entered symbols will be shown in the list.


4. (Optional) Click **Select All** / **Deselect All** to select/clear check boxes to the left of all users in the list.

5. Perform the following actions:

- To make the layout available to SmartPTT Express Client users, select check boxes to the left of the corresponding names.
- To make the layout unavailable to SmartPTT Express Client users, clear check boxes to the left of the corresponding names.

6. In the **Users** window, click **OK** to finish editing.

7. (Optional) View additional information:
 - a. In the **Name** field, view the selected layout name.
 - b. In the **Owner** field, view the name of the user who created the layout.

 Layout owner will have access to the layout even if the corresponding check box is cleared in the **Dispatchers** window.

8. On the Toolbar, click **Save Configuration** .

5.2 UPGRADING SMARTPTT EXPRESS

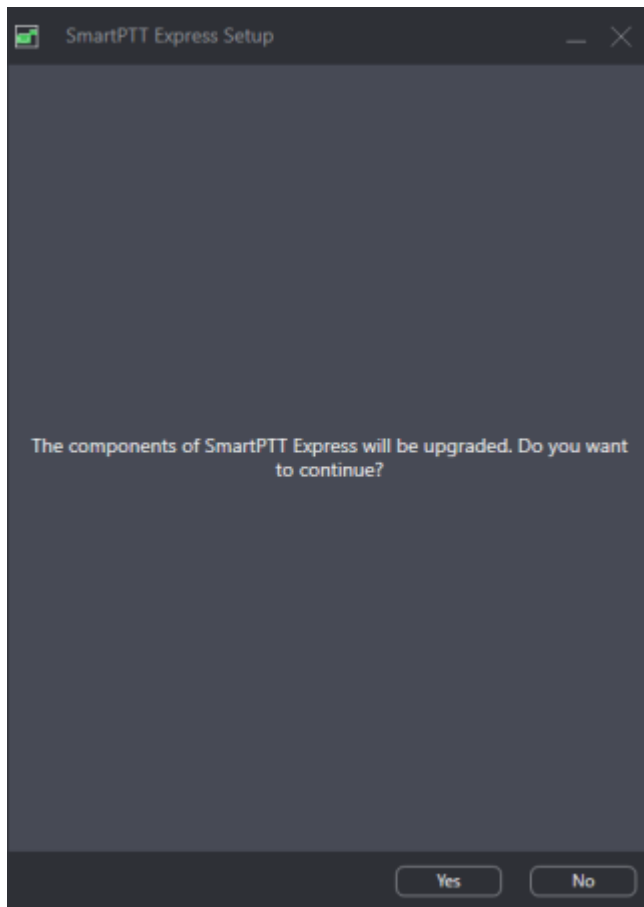
Follow the procedure to upgrade previously installed SmartPTT Express to a newer version.

Prerequisites:

- Make the installation file available to start from the SmartPTT Express host.
- (Optional) Back up your current configuration. For details, see [Exporting Configuration](#) on page 143.
- Ensure your subscription expiration date is greater than the date of the new version release. If not, purchase an update and install the new license. For instructions, see [Installing License](#) on page 84.
- Back up (export) the SmartPTT configuration. For instructions, see [Exporting Configuration](#) on page 143.

Procedure:

1. Start the installation file.
The upgrade window appears.



2. In the window that appears, click **Yes**.
3. When the upgrade is complete, click **Close**.

Postrequisites:

- Repeat the procedure on each SmartPTT Express host.
- (Optional) Import previously saved configuration. For details, see [Importing Configuration](#) below.


5.3 IMPORTING CONFIGURATION

Follow the procedure to import/restore SmartPTT Express configuration.

Prerequisites:

- Ensure that you have access to the exported configuration file (.bkp).
- Log on to SmartPTT Express Configurator.

Procedure:

1. In the Configurator, on the Toolbar, click **Restore configuration**.
A dialog box appears.
2. In the dialog box, specify the desired configuration file. Then click **Open**.
3. On the Toolbar, click **Save Configuration** .

Postrequisites: To apply changes, restart the Server. For details, see [Start and Stop of the SmartPTT Server](#) on page 81.

5.4 RE-CONFIGURING SMARTPTT SERVER

Follow the procedure to edit authorization type and SmartPTT Express Configurator connection settings.

Prerequisites:

- Make the installation file available to start from the SmartPTT Server host.
- Determine the new authorization type, SmartPTT Server IP address and TCP port.

Procedure:

1. Start the installation file.
The **SmartPTT Express Setup** window appears.

2. In the window that appears, click **Configure**.

The **Server Configuration** window appears.

3. In the window that appears, in the **Authorization Type** area, perform one of the following actions:

If...	Then...
To set domain authorization,	perform the following actions: <ol style="list-style-type: none">1. Click Domain.2. From the Domain list, select the desired domain name.
To set local authorization,	click Local Groups .

4. (Optional) In the **System Name** field, enter a name for the SmartPTT Express system. Then click **Next**.

SmartPTT Server connection parameters appear.

5. In the window that appears, perform the following actions:

- a. In the **Server IP Address** field, enter the SmartPTT Server IP address.
- b. If the **Port** field appears, enter a free TCP port number in it.
- c. Click **Next**.

Configuration summary appears.

6. In the window that appears, review changes. If correct, click **Configure**.

Re-configuration starts.

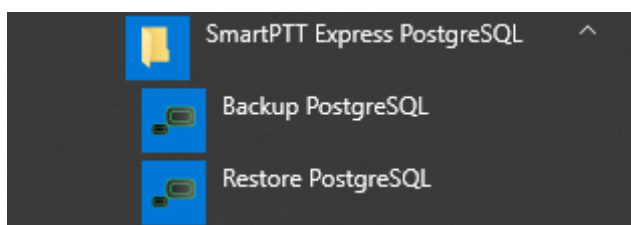
7. When the re-configuration is complete, in the window, click **Close**.

5.5 BACKING UP AND RESTORING SMARTPTT EXPRESS DATABASE

Follow the procedure to back up or restore SmartPTT Express database (audio records and location data).

Procedure:

1. In the Windows Start menu, locate the **SmartPTT Express PostgreSQL** folder.



2. Perform one of the following actions:

If...	Then...
To back up the database,	perform the following actions: <ol style="list-style-type: none">1. Click Backup PostgreSQL.2. In the window that appears, specify backup file name and location, and then click Backup.
To restore database from backup,	perform the following actions: <ol style="list-style-type: none">1. Click Restore PostgreSQL.

- | | |
|--|---|
| | 2. In the window that appears, specify the desired backup file, and then click Restore . |
|--|---|

5.6 UNINSTALLING SMARTPTT EXPRESS

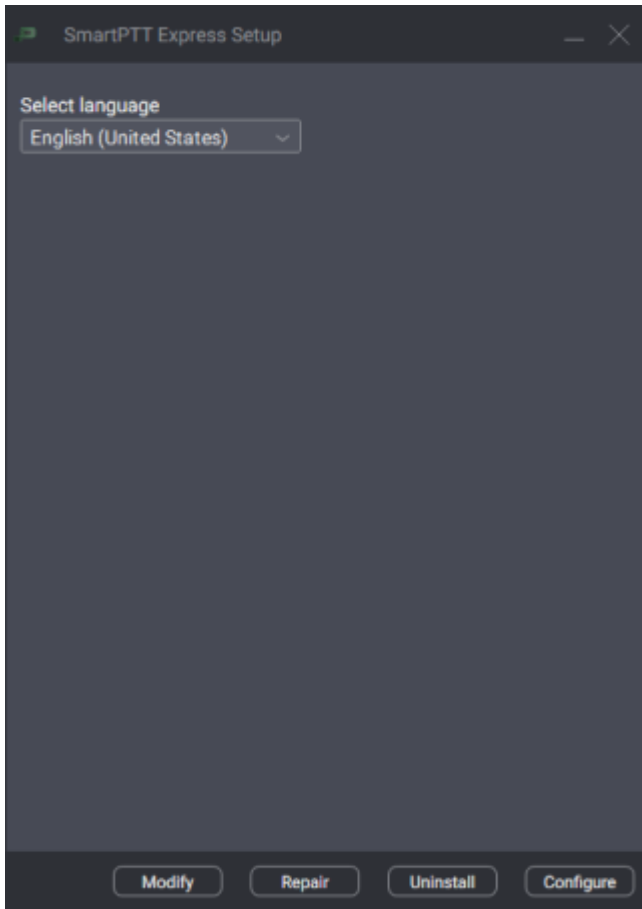
Follow the procedure to uninstall SmartPTT Express from the computer. Supplemental software (frameworks and redistributable packages) remains installed because it may be used by other software.

Prerequisites: Create a configuration backup. For details, see [Exporting Configuration](#) on page 143.

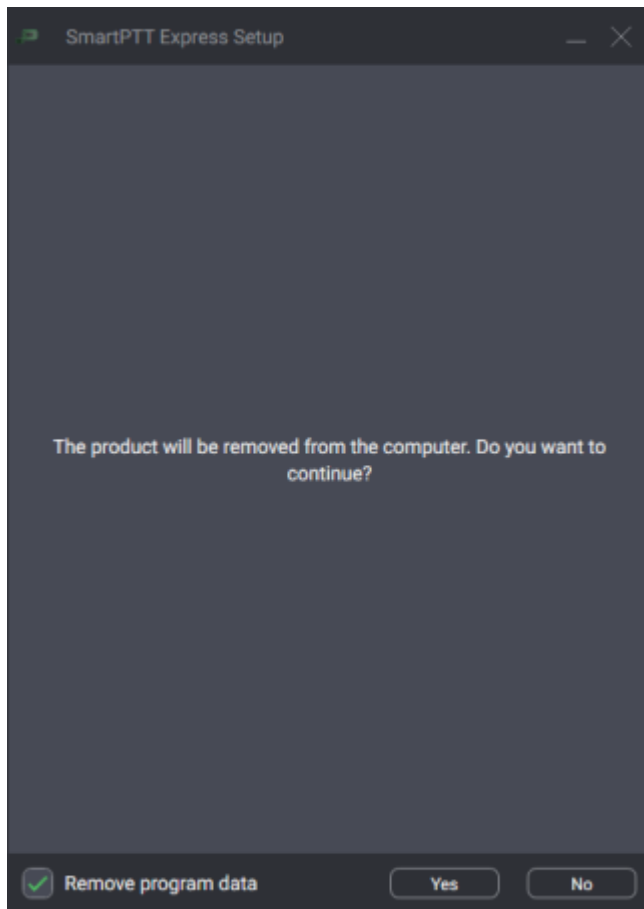
Procedure:

1. On the computer with SmartPTT Express, start the installation file.

The **SmartPTT Express Setup** window appears.



2. (Optional) From the drop-down list, select the language that will be used during uninstallation.
3. Click **Uninstall**.
Uninstallation options appear.



4. Perform one of the following actions:
 - To delete console settings, layouts, tones, audio archive, and user settings and data, select the **Remove program data** check box.
 - To keep program data on the computer, clear the **Remove program data** check box.
5. Click **Yes**.
6. When uninstallation completes, close the window.



Chapter 6: Troubleshooting

This chapter describes common problems SmartPTT Express users may experience and ways to resolve them.

6.1 DIMETRA EXPRESS CONNECTION ISSUES ON SETTINGS UPDATE

SmartPTT Server may become unable to connect to DIMETRA Express if you re-configure DIMETRA Express with SmartPTT Server configured and operable. This may occur when you use both dispatch and voice logging features.

To resolve the issue, restart SmartPTT Server and synchronize it with DIMETRA Express again. To avoid such issues in the future, complete DIMETRA Express configuration before configuring SmartPTT Express.

6.2 DIMETRA EXPRESS SETTINGS UPDATE ISSUES

This problem may occur when you apply changes in DIMETRA Express and then immediately synchronize SmartPTT Server with it. In such cases, updates may not happen.

To resolve the problem, wait until changes are applied in DIMETRA Express. The update process may take 40 seconds or more. Try to synchronize with DIMETRA Express after this time. If your changes include new IP addresses and ports, update and apply the corresponding SmartPTT Server settings.

If synchronization fails after 5 minutes, contact SmartPTT Express technical support.

6.3 VOICE CALLING ISSUES

After updating DIMETRA Express settings and re-synchronizing SmartPTT Server with it, SmartPTT Express Client may become unable to receive and/or initiate voice calls.

To resolve the problem, check if the SmartPTT Server IP address is added to the console list in DIMETRA Express. This is required to receive and initiate calls. After you add it, apply changes in DIMETRA Express, re-synchronize it with SmartPTT Server, and save SmartPTT Server changes.

6.4 VOICE CALLS UNAVAILABILITY WITH WINDOWS FIREWALL TURNED OFF

If the Windows Firewall is turned off on the computer and no other firewall software is used, voice call reception and initiation may be unavailable for dispatchers. This occurs because network ports used by SmartPTT Express are not added to the firewall ignore list (allow list).

To resolve the problem, unblock network traffic for ports used by SmartPTT Express even if you are not using Windows firewall. For details, see [Antivirus & Firewall Configuration](#) on page 52.

6.5 VOICE LOGGING SETTINGS UPDATE

If voice logging is configured first in SmartPTT Express Configurator and then in DIMETRA Express, audio recording may not begin.

To resolve this problem, restart SmartPTT Server. For details, see [Start and Stop of the SmartPTT Server](#) on page 81. To avoid such issues in the future, complete DIMETRA Express configuration before configuring SmartPTT Express.

6.6 ABSENCE OF LOCATION INFORMATION

If radios in DIMETRA Express system have not been configured correctly, SmartPTT Express will be unable to receive and process their coordinates. Correct radio configuration includes the following:

- Use the Short Data Transport Service (SDTS), not the Packet Data Service.
- Ensure that the correct Short Data Host ID is used.
- Use the LIP protocol (LRRP is not supported in SmartPTT Express).

6.7 NO INCOMING AND OUTGOING VOICE IN SMARTPTT EXPRESS CLIENT

In Windows 10 1809 Pro Education N with German localization, incoming and outgoing voice to and from SmartPTT Express Client is not heard.

To resolve this problem, install Media Feature Pack for Windows 10 N:

<https://www.microsoft.com/en-us/software-download/mediafeaturepack>

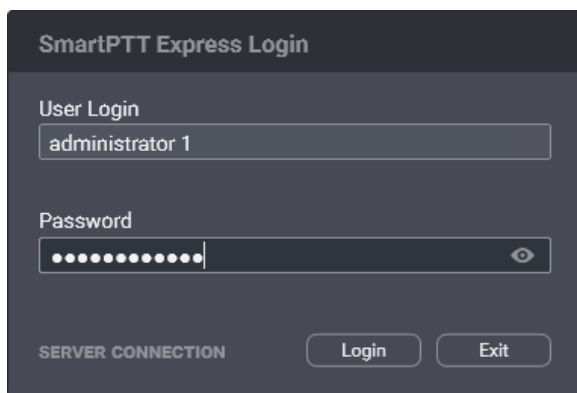


Appendix A: Configurator UI

The appendix describes the user interface elements available in the SmartPTT Express Configurator application.

A.1 SMARTPTT EXPRESS LOGIN WINDOW

The window provides settings to connect SmartPTT Express Configurator to the SmartPTT Server and authenticate administrators.



In the window, the following fields are available:

USER LOGIN

Login of a SmartPTT Express user that has administrator permissions. For details, see [System Roles & Authorization](#) on page 45.

PASSWORD

Password of the SmartPTT Express user. For details, see [System Roles & Authorization](#) on page 45.


VIEW PASSWORD

Shows/hides password characters instead of bullets. Appears in the **Password** field when at least one character is typed in the field.

SERVER CONNECTION

Shows the IPv4 address and port number used by SmartPTT Express Configurator to connect to SmartPTT Server. Also, replaces the **Login** and **Exit** buttons with **Update** and **Close**.

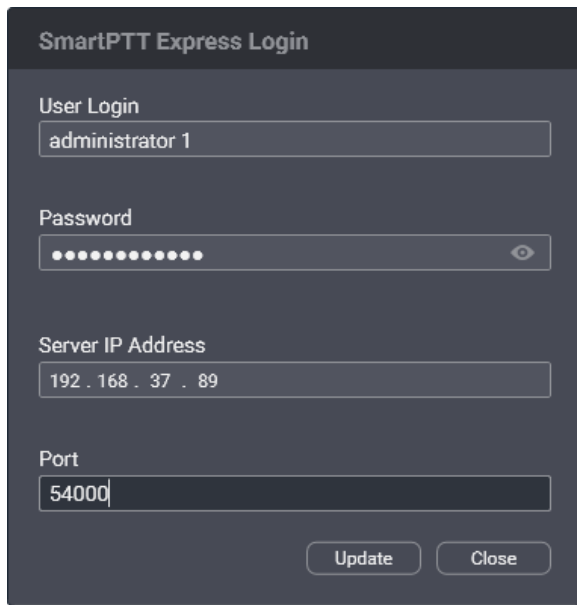
LOGIN

Initiates the user authentication process. The button is active only if SmartPTT Server connection is established successfully (the **Connected**  icon appears in the Status Bar).

EXIT

Closes the authorization window and the SmartPTT Express Configurator application.

If users click the server connection, additional parameters appear in the bottom part of the window.

A dark-themed dialog box titled "SmartPTT Express Login". It contains four input fields: "User Login" with the text "administrator 1", "Password" with ten dots and a toggle icon, "Server IP Address" with the text "192 . 168 . 37 . 89", and "Port" with the text "54000". At the bottom right, there are two buttons: "Update" and "Close".

SmartPTT Express Login

User Login
administrator 1

Password
●●●●●●●●●●

Server IP Address
192 . 168 . 37 . 89

Port
54000

Update Close

Additional parameters are as follows:

SERVER IP ADDRESS

IPv4 address of the SmartPTT Server host in dot-decimal notation.

PORT

The TCP port number configured in SmartPTT Server to accept SmartPTT Express Configurator connection requests. The default port is *54000*. This port is set during installation and can be changed by modifying SmartPTT Server installation.

UPDATE

This button is available only when Server Connection settings are displayed. It validates the parameters of connection to SmartPTT Server and starts connecting SmartPTT Express Configurator to the SmartPTT Server.

CLOSE

This button is available only when **Server Connection** settings are displayed. It collapses the **Server Connection** settings. The **Update** and **Close** buttons are replaced with **Login** and **Exit**.

A.2 TOOLBAR

The top part of the main SmartPTT Express Configurator window (Toolbar) provides general-purpose controls over SmartPTT Express configuration.



On the Toolbar, the following buttons are available:

CONFIGURATOR SETTINGS

Opens the **Configurator Settings** window. For details, see [Configurator Settings Window](#) on page 162.

BACKUP CONFIGURATION

Provides the ability to back up the current SmartPTT Express configuration by exporting it to an encrypted file with .bkp extension.

RESTORE CONFIGURATION

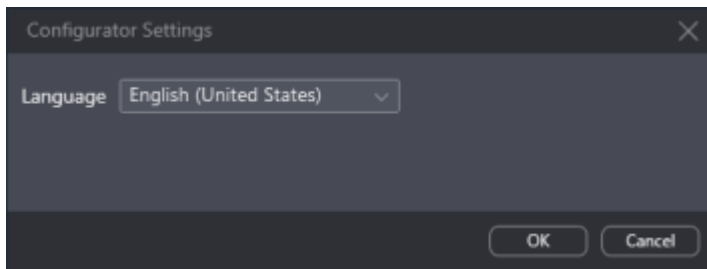
Provides the ability to restore SmartPTT Express configuration from a .bkp file. After doing so, all changes are saved and applied immediately.

SAVE CONFIGURATION

Initiates validation of the configuration changes made by the user in SmartPTT Express Configurator. If the changes are valid and do not involve IP address changes, they are applied. IP address changes are applied only after SmartPTT Server restart. For details, see [Start and Stop of the SmartPTT Server](#) on page 81. If the changes are invalid, the **Invalid Configuration Data** window appears. For details, see [Invalid Configuration Data Window](#) below.

A.2.1 CONFIGURATOR SETTINGS WINDOW

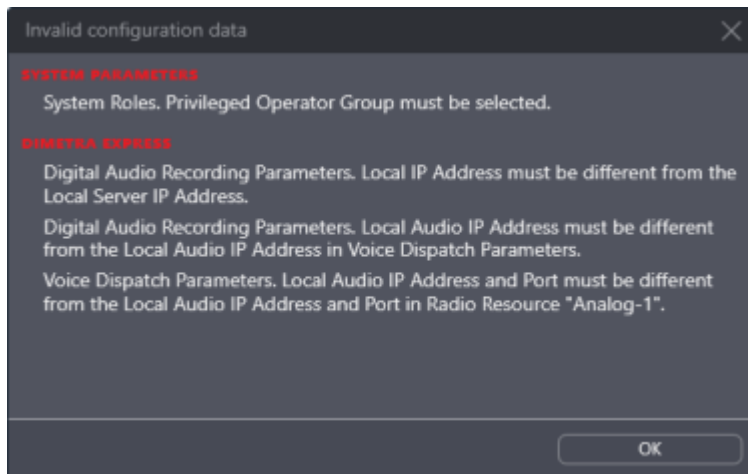
This window provides the ability to change the SmartPTT Express Configurator interface language.



In the window, the **Language** list is available. It provides the list of languages for which localization is available.

A.2.2 INVALID CONFIGURATION DATA WINDOW

This window displays invalidly configured parameters of SmartPTT Express.

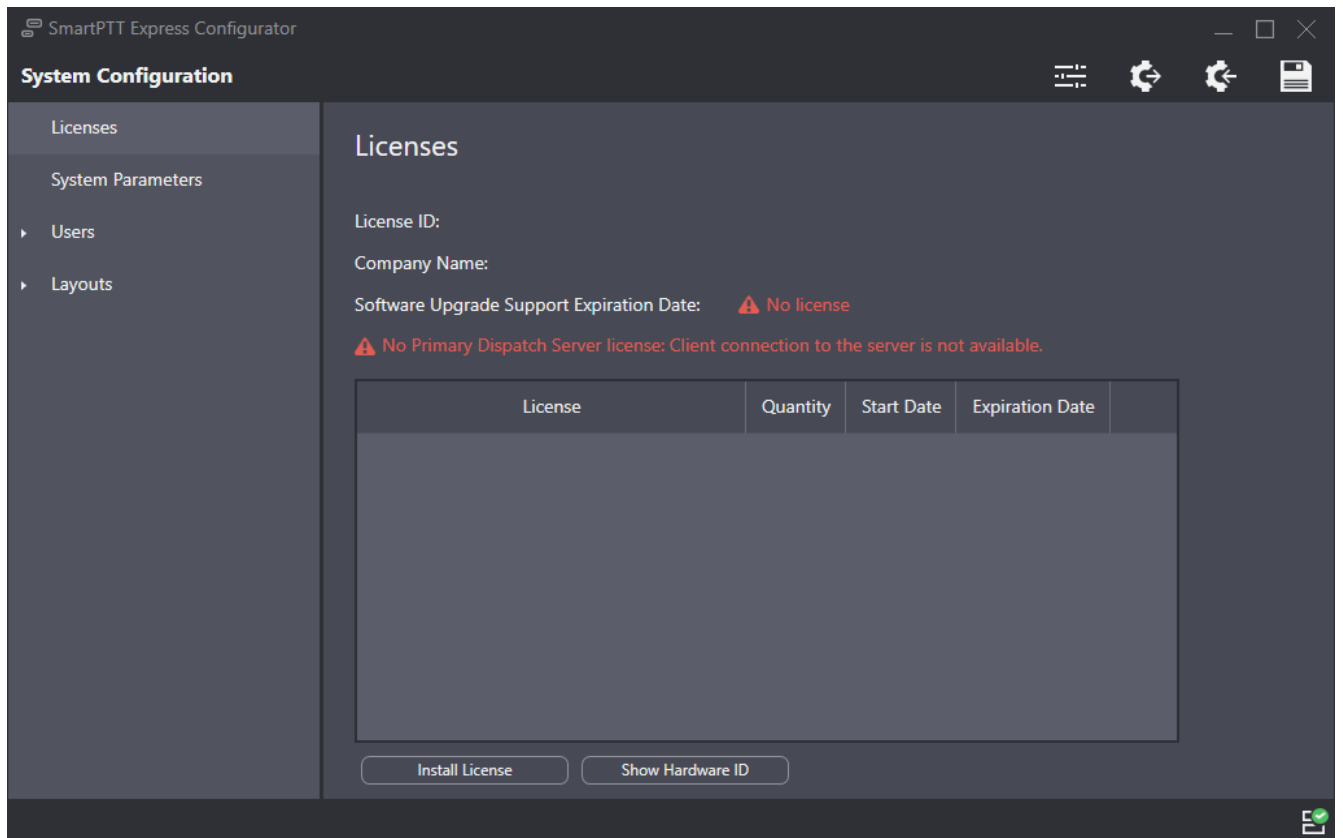


The window does not block access to SmartPTT Express Configurator tabs and settings. If the user clicks a parameter name in the window, the corresponding tab opens.

Clicking the **OK** button at the bottom of the window closes it.

A.3 LICENSES

The **Licenses** tab provides information required for SmartPTT Express licensing and license monitoring.



The right pane provides the following information:

- General license information,
- Purchased licenses,
- Licensing controls

The general license information consists of the following entries:

LICENSE ID


A unique license code that identifies the Customer.

COMPANY NAME

The name of the licensee.

SOFTWARE UPGRADE SUPPORT EXPIRATION DATE

Expiration date of free software update. The user is unable to start a SmartPTT Express version released after this date.

 SmartPTT Express does not block installation of software upgrades that will be incompatible with the license. The installed software will be inoperable and unavailable to configure until a proper license is installed.

The table of purchased licenses consists of the following columns:

LICENSE

Shows the names of license items. For license explanations, please contact Elcomplus, Inc. representative in your region.

QUANTITY

The number of items enabled by the license.

START DATE

The date when the license becomes active, and the corresponding service is provided.

EXPIRATION DATE

The date after which the corresponding service stops being provided in SmartPTT Express.

At the bottom of the tab, the following buttons are available:

INSTALL LICENSE

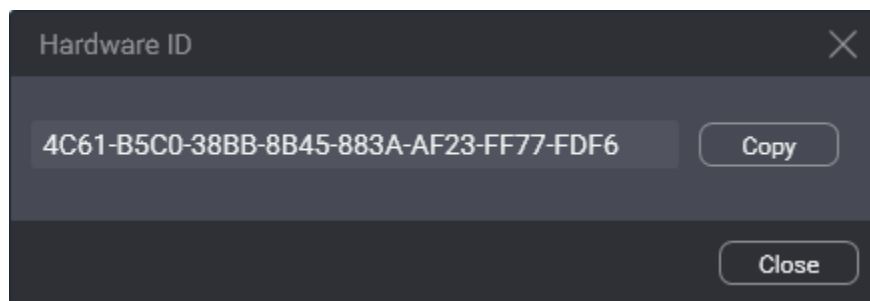
Opens the dialog window where the user selects the license file. The file extension is .sptlx.

SHOW HARDWARE ID

Opens the **Hardware ID** window. For details, see [Hardware ID Window](#) below.

A.3.1 HARDWARE ID WINDOW

In the window, the Hardware ID value appears.



In the window, the following buttons are available:

HARDWARE ID FIELD

Value of the Hardware ID that is required to order a compatible license.

i Do not confuse Hardware ID with License ID.

COPY

Copies the Hardware ID value (with delimiters) to the clipboard. The copied ID needs to be sent to Elcomplus, Inc. to order a license.

At the bottom of the window, the **Close** button is available. It closes the window.

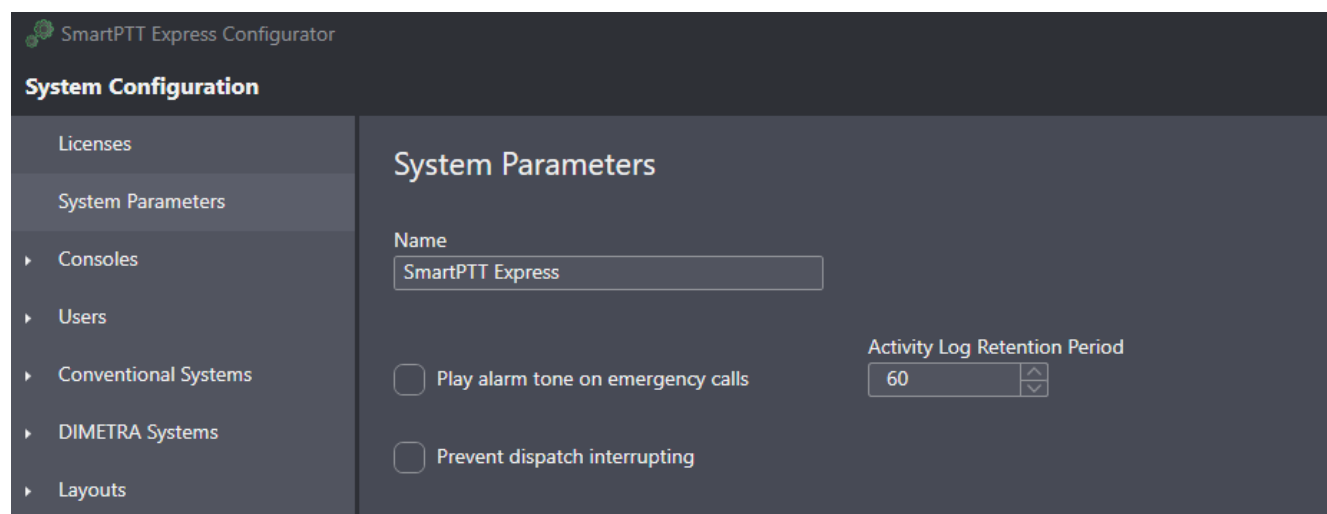
A.4 SYSTEM PARAMETERS

The tab provides general SmartPTT Express settings grouped in the following areas:

- System Parameters. For details, see [System Parameters](#) below.
- System Roles. For details, see [System Roles](#) on page 168.
- Server Parameters. For details, see [Server Parameters](#) on page 170.

A.4.1 SYSTEM PARAMETERS

The area provides miscellaneous SmartPTT Express settings.



In the area, the following settings are available:

NAME

The name of the SmartPTT Express system that is used for internal purposes only.

PLAY ALARM TONE ON EMERGENCY CALLS

Blocks/unblocks the alarm tone playback on dispatch consoles when an emergency call is received from a radio user. If cleared, the tone will play on emergency alarms only.

ACTIVITY LOG RETENTION PERIOD

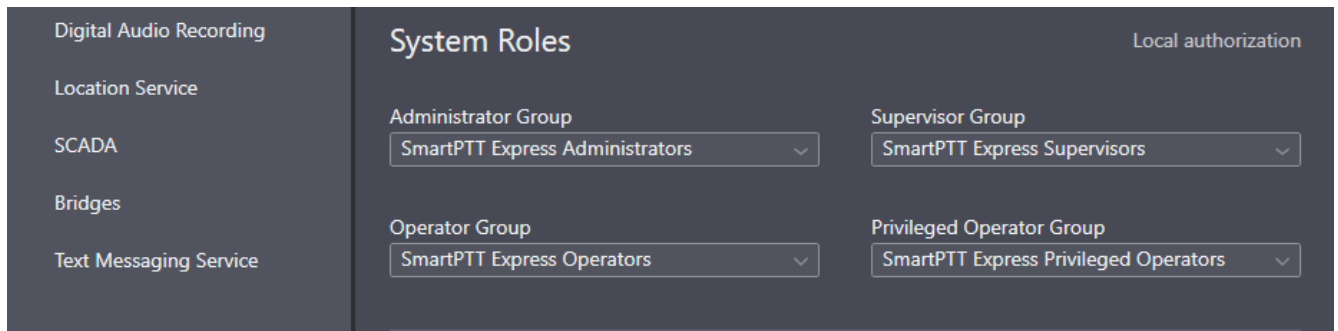
The time after which event information is deleted from the Activity Log. The range of possible values is from 10 to 1440 minutes (24 hours). SmartPTT Express checks the retention period every 10 minutes.

PREVENT DISPATCH INTERRUPTING

If selected, dispatchers must wait for the incoming voice transmission to end before starting their own; if cleared, they can start transmitting at any time, interrupting any incoming voice transmissions of radio users.

A.4.2 SYSTEM ROLES

The area provides SmartPTT Express authentication and authorization settings. In the top right corner of the area, authorization mode is displayed.



In the area, the following settings are available:

ADMINISTRATOR GROUP

The user group whose members are granted administrator permissions in SmartPTT Express. Only one group can be selected.

i Changing the group of administrators does not take effect until the user logs off from SmartPTT Express Configurator.

SUPERVISOR GROUP

The user group whose members are granted supervisor permissions in SmartPTT Express.

OPERATOR GROUP

The user group whose members are granted regular operator permissions in SmartPTT Express.

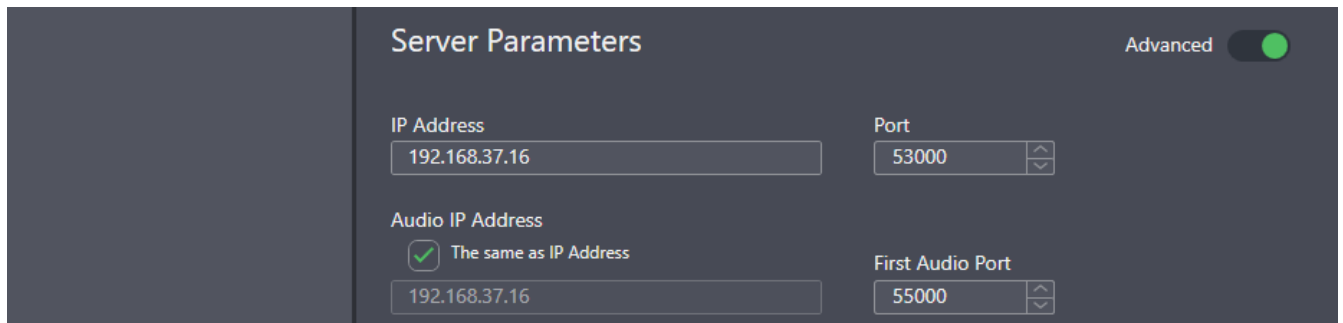
PRIVILEGED OPERATOR GROUP

The user group whose members are granted privileged operator permissions in SmartPTT Express.

For details on user roles, see [System Roles & Authorization](#) on page 45.

A.4.3 SERVER PARAMETERS

The area provides the ability to configure SmartPTT Server network interfaces for dispatch console connections.



Server Parameters		Advanced <input checked="" type="checkbox"/>
IP Address	<input type="text" value="192.168.37.16"/>	Port <input type="text" value="53000"/>
Audio IP Address	<input checked="" type="checkbox"/> The same as IP Address <input type="text" value="192.168.37.16"/>	First Audio Port <input type="text" value="55000"/>

In the area, the following settings are available:

ADVANCED

If turned on, all parameters in the area are shown and available for editing. Otherwise, only the **IP Address** and **Port** fields are displayed.

IP ADDRESS

The IPv4 address of the SmartPTT Server host in dot-decimal notation. The address is a part of SmartPTT Server control interface that is used to manage SmartPTT Express Client applications. If [127.0.0.1](#) is entered, only the locally installed SmartPTT Express Client will be able to connect to SmartPTT Server.

PORT

A free TCP port number of the SmartPTT Server host. The port is a part of the SmartPTT Server control interface that is used to manage SmartPTT Express Clients. Default port number is *53000*.

AUDIO IP ADDRESS

The IPv4 address of the SmartPTT Server host in dot-decimal notation. The address is a part of the SmartPTT Server voice interface that is used to exchange voice traffic between SmartPTT Server and SmartPTT Express Client applications. If `127.0.0.1` is entered, only the locally installed SmartPTT Express Client will be able to connect to SmartPTT Server.

THE SAME AS IP ADDRESS

If selected, the value in the **IP Address** field is copied to the **Audio IP Address** field, which cannot be edited.

FIRST AUDIO PORT

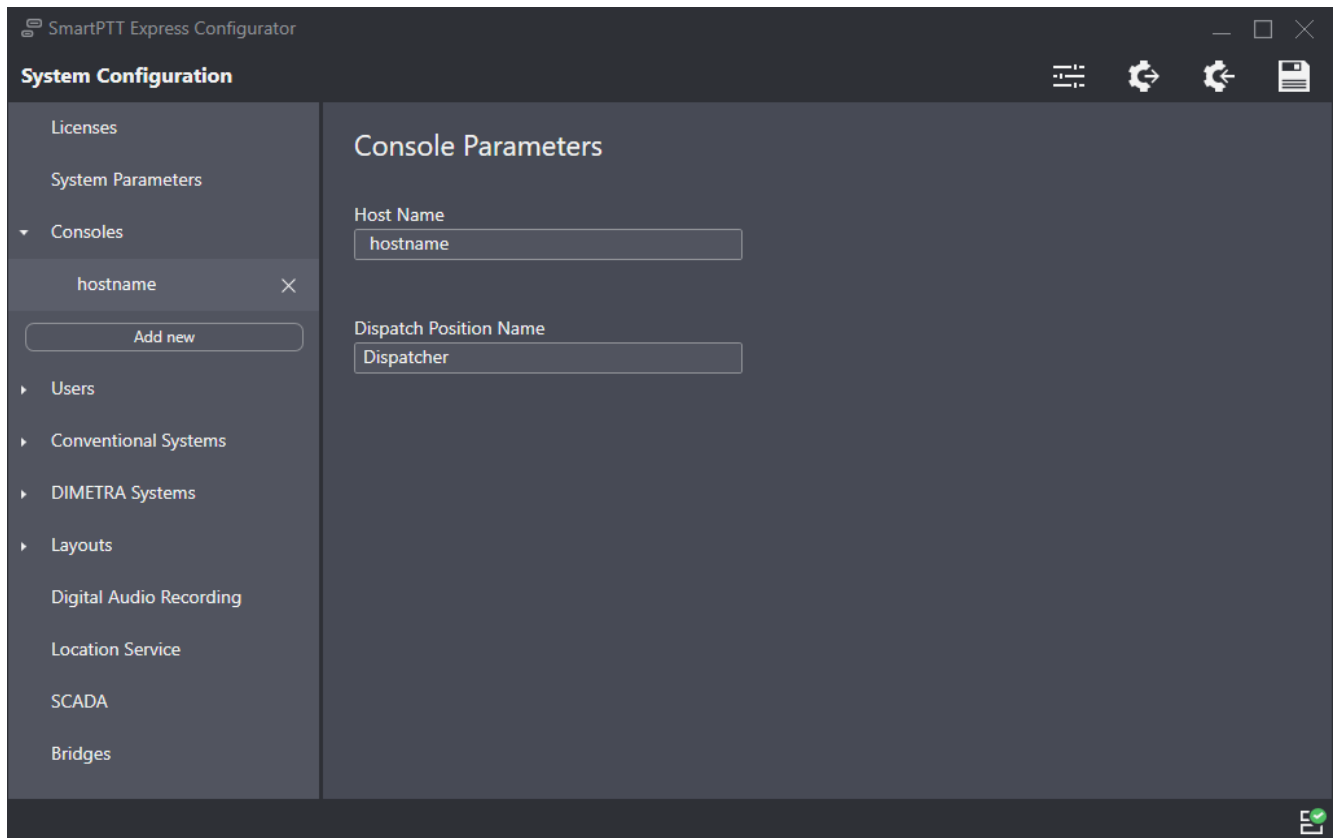
The lowest port number in the range of UDP ports used to exchange voice traffic with SmartPTT Express Client applications.

LAST AUDIO PORT

The highest port number in the range of UDP ports used to exchange voice traffic with SmartPTT Express Client applications.

A.5 CONSOLES

This expandable tab provides the list of configured dispatch consoles. At the bottom of the expanded control, the **Add new** button is available that adds a new entry to the list. When the user clicks a list entry, the corresponding settings appear on the right pane. To the right of each name is the **Delete** button. Clicking it deletes the console.



On the right pane, the following settings are available:

HOST NAME

Computer (system) name of the dispatch console host.

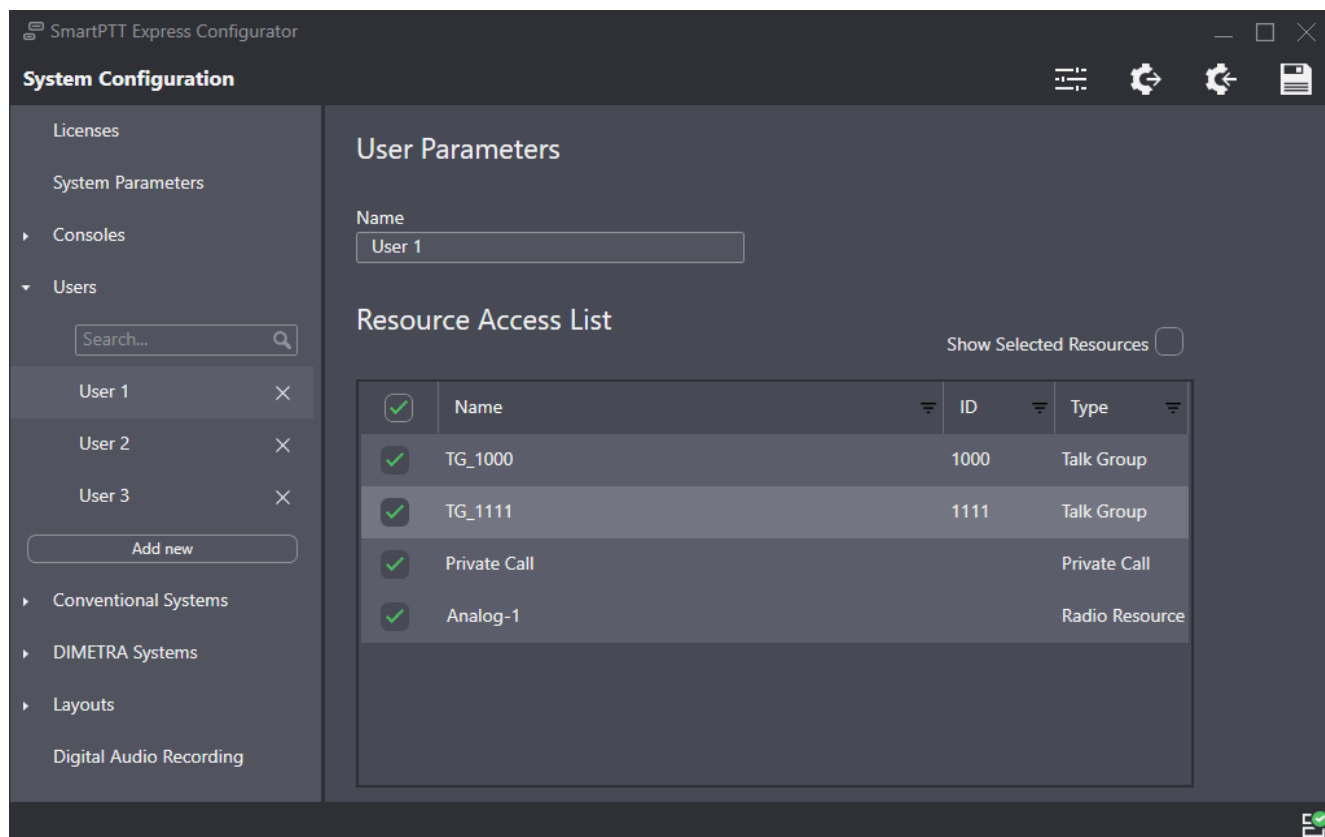
DISPATCH POSITION NAME

Alias of the dispatch console that is used internally in SmartPTT Express.

A.6 USERS

This expandable tab provides the list of SmartPTT Express Client users. At the bottom of the expanded control, the **Add new** button is available that adds a new entry to the list. When the user

clicks a list entry, the corresponding settings appear on the right pane. To the right of each name is the **Delete** button. Clicking it deletes the user.



On the right pane, the following settings are available:

NAME

Username that must be the same as the corresponding Windows user login.

SHOW SELECTED RESOURCES

If this check box is selected, the **Resource Access List** displays only those resources to which the user has been granted access.

The **Resource Access List** displays the resources available in the system in table form. The check box to the left of a resource name grants/denies the user access to the resource. The check box in the header row grants/denies the user access to all resources currently displayed.

The table consists of the following columns:

NAME

The resource name.


ID

DIMETRA talkgroup ID. For private calls and donor radios, the field is empty.

TYPE

Resource type. The following types are available:

- **Talkgroup:** DIMETRA talkgroups.
- **Private Call:** A resource responsible for receiving/transmitting for a single private call.
- **Radio Resource:** Donor radio connected via RG-1000e or CCGW radio gateway.

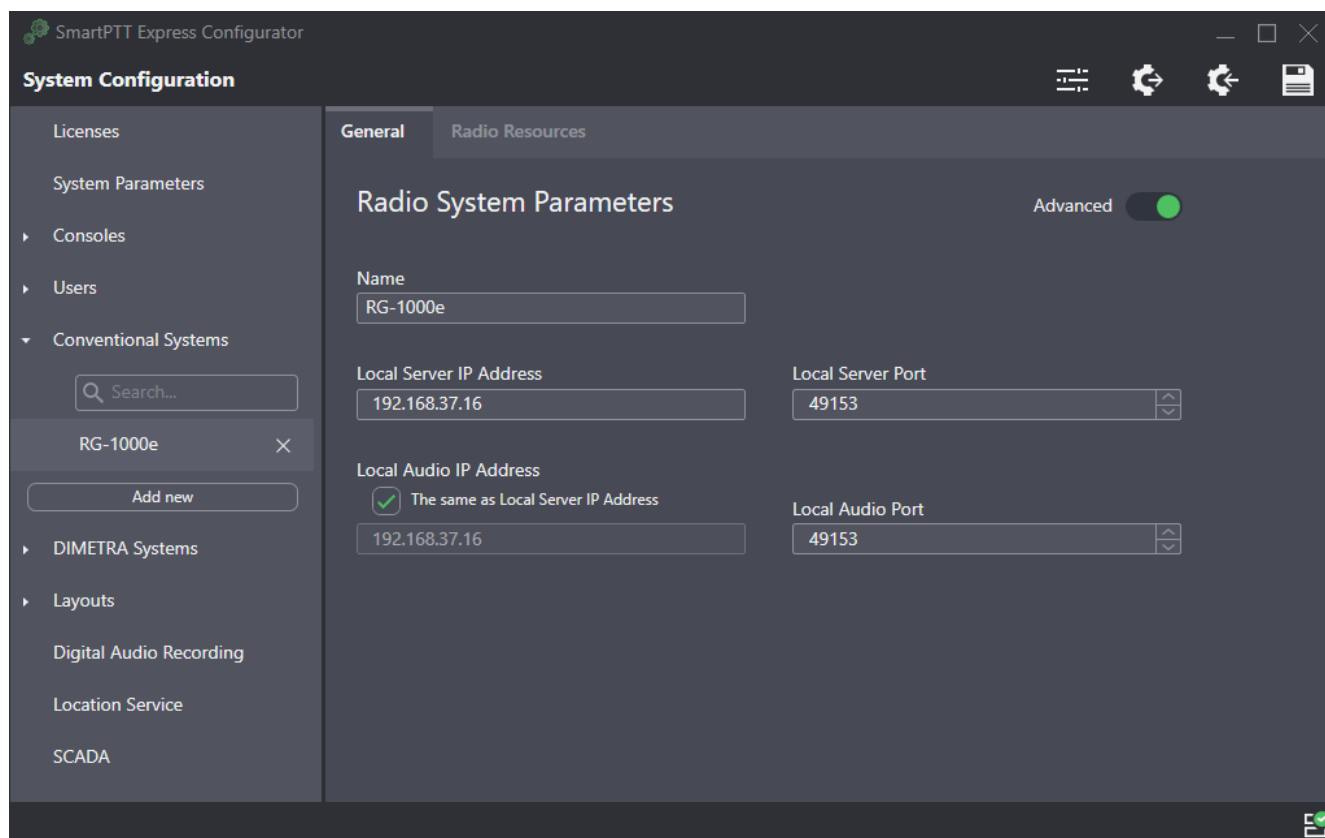
 Users with administrator permissions have access to all resources regardless of settings on this tab.

A.7 CONVENTIONAL SYSTEMS

This expandable tab provides the ability to add and configure conventional system connections. These do not have to correspond to actual RG-1000e devices. It is possible to add one conventional system and add all radio resources connected to multiple RG-1000e gateways to it.

A.7.1 GENERAL TAB

The tab provides local interface settings for RG-1000e connection.



On the right pane, the following settings are available:

ADVANCED

If turned on, all parameters in the area are shown and available for editing. Otherwise, only the **Name** field is displayed.

NAME

Radio system name which is used for internal purposes only.

LOCAL SERVER IP ADDRESS

The SmartPTT Server host IP addresses used as part of the control interface between it and RG-1000e.

LOCAL SERVER PORT

The SmartPTT Server host port is used as part of the control interface between it and RG-1000e.

LOCAL AUDIO IP ADDRESS

SmartPTT Server IP address used for voice traffic between SmartPTT Server and RG-1000e.

THE SAME AS LOCAL SERVER IP ADDRESS

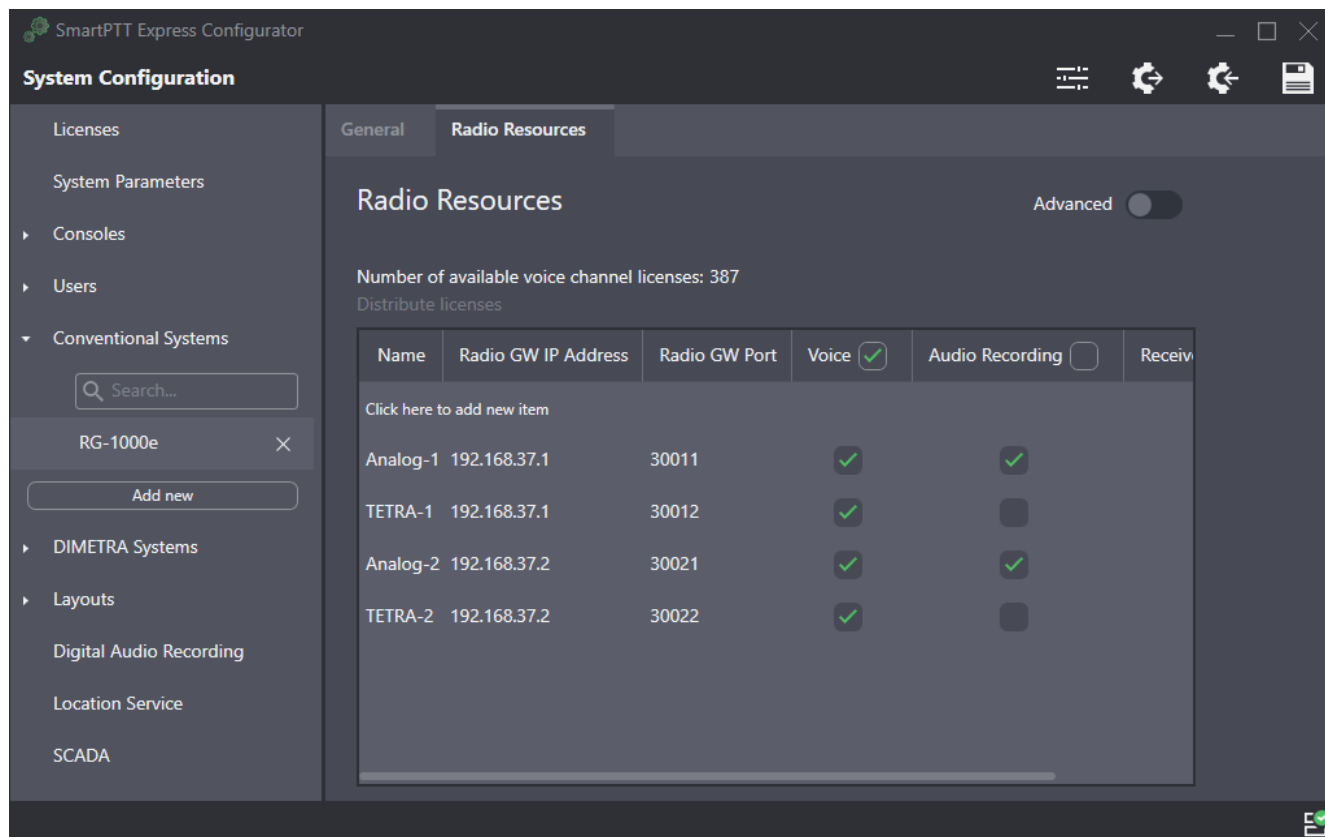
If selected, the value in the **Local Server IP Address** field is copied to the **Local Audio IP Address** field, which cannot be edited.

LOCAL AUDIO PORT

SmartPTT Server UDP port used for voice traffic between SmartPTT Server and RG-1000e.

A.7.2 RADIO RESOURCES TAB

The tab provides the settings of donor radios connected to RG-1000e gateways.



SmartPTT Express Configurator

System Configuration

General Radio Resources

Radio Resources Advanced

Number of available voice channel licenses: 387
Distribute licenses

Name	Radio GW IP Address	Radio GW Port	Voice <input checked="" type="checkbox"/>	Audio Recording <input type="checkbox"/>	Receiv
Click here to add new item					
Analog-1	192.168.37.1	30011	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
TETRA-1	192.168.37.1	30012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Analog-2	192.168.37.2	30021	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
TETRA-2	192.168.37.2	30022	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

On the right pane, the following elements are available:

ADVANCED

If turned on, the **Local Audio IP Address** and **Local Audio Port** columns of the donor radios table are shown and available for editing.

NUMBER OF AVAILABLE VOICE CHANNEL LICENSES

Displays the number of unassigned voice channel licenses. These are shared between conventional resources and DIMETRA resources.

Distribute licenses

Enables voice for as many resources as the number of unassigned voice channel licenses allows.

The donor radios table consists of the following columns:

NAME

The name of the radio resource that will be displayed on its tile in SmartPTT Express Client.

RADIO GW IP ADDRESS

The IP address of the donor radio configured in RG-1000e.

RADIO GW PORT

The XCMP port of the donor radio configured in RG-1000e.

LOCAL AUDIO IP ADDRESS

SmartPTT Server IP address used for voice traffic between SmartPTT Server and the donor radio.

LOCAL AUDIO PORT

SmartPTT Server port used for voice traffic between SmartPTT Server and the donor radio.

VOICE

If the check box is selected, voice dispatch is available for the resource.

AUDIO RECORDING

If the check box is selected, digital audio recording is available for the resource.

RECEIVE ONLY

If the check box is selected, the donor radio is unavailable for outgoing calls from SmartPTT Express Client. If included in a bridge, it will only route transmissions from, but not to its radio system.

USERS

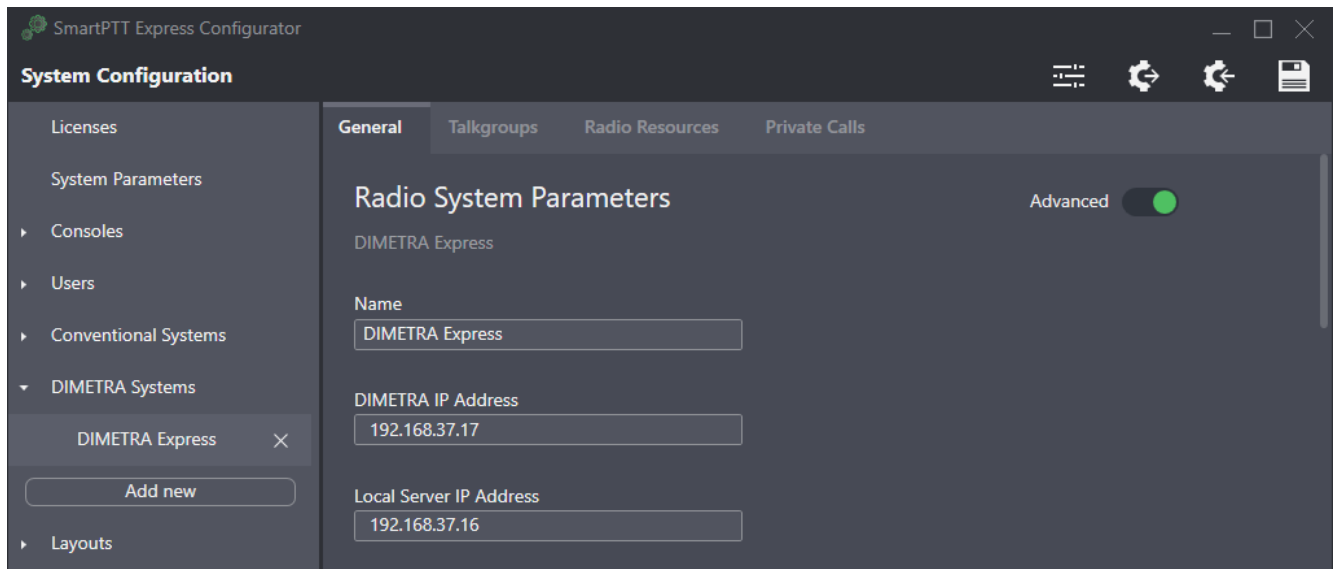
SmartPTT Express users that have access to the resource.

A.8 DIMETRA SYSTEMS

This expandable tab provides the ability to add and configure the DIMETRA Express connection. The configuration process includes multiple actions that must be completed before configuration changes can be saved.

A.8.1 RADIO SYSTEM PARAMETERS

This area provides DIMETRA Express access settings.



In the area, the following settings are available:

ADVANCED

If turned on, all parameters in the area are shown and available for editing. Otherwise, only the **Name** and **DIMETRA IP Address** fields are displayed.

NAME

Radio system name which is used for internal purposes only.

DIMETRA IP ADDRESS

Main DIMETRA Express Server IP address, exactly as it is provided in DIMETRA Express configuration. For details, see [DIMETRA Express Configuration](#) on page 34.

LOCAL SERVER IP ADDRESS

SmartPTT Server IP address to be used as the control interface between SmartPTT Server and DIMETRA Express.

SWITCH TO REDUNDANT CONNECTION

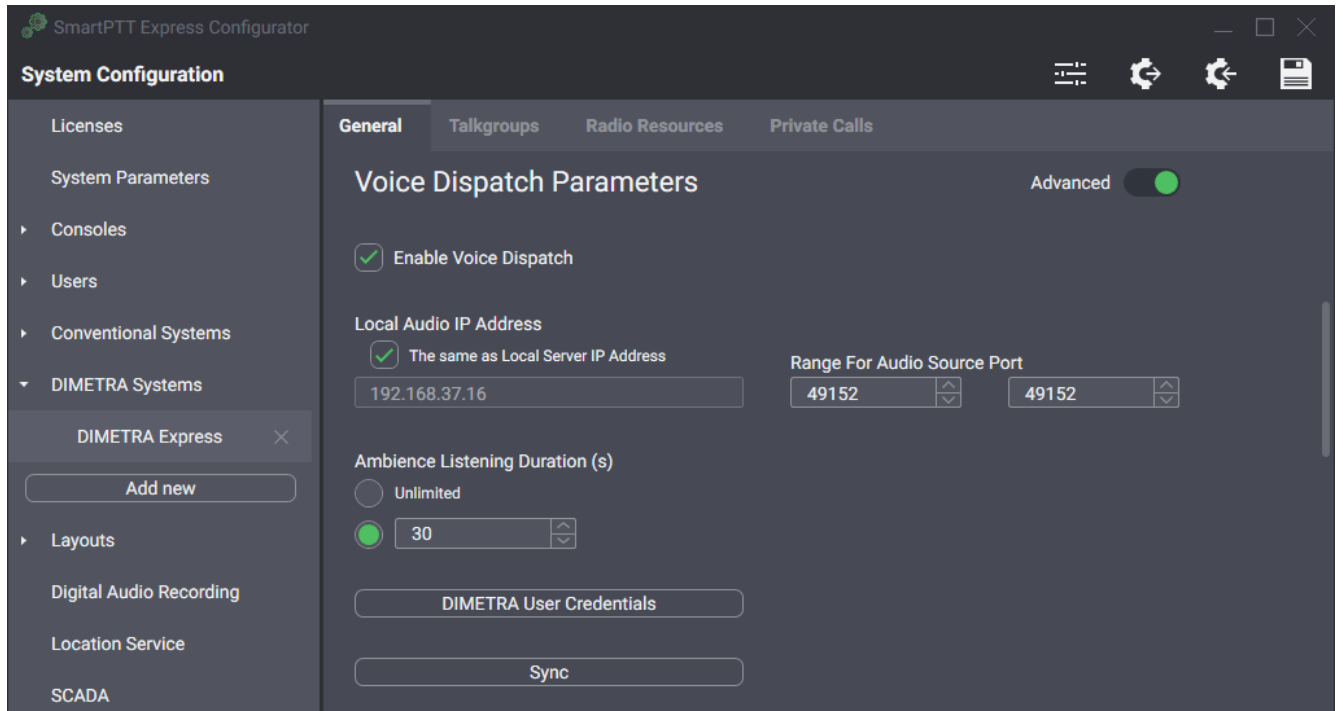
Switches between the main and redundant DIMETRA Express Server. For the switch to take effect, the user must save configuration changes.

REDUNDANT DIMETRA IP ADDRESS

Redundant DIMETRA Express Server IP address, exactly as it is provided in DIMETRA Express configuration.

A.8.2 VOICE DISPATCH PARAMETERS

This area provides voice dispatch settings.



In the area, the following settings are available:

ENABLE VOICE DISPATCH

Enables/disables voice dispatch functionality in SmartPTT Express.

ADVANCED

If turned on, all parameters in the area are shown and available for editing. Otherwise, only the **DIMETRA User Credentials** button is displayed.

LOCAL AUDIO IP ADDRESS

SmartPTT Server IP address used for voice traffic between SmartPTT Server and DIMETRA Express.

THE SAME AS LOCAL SERVER IP ADDRESS

If selected, the value in the **Local Server IP Address** field is copied to the **Local Audio IP Address** field, which cannot be edited.

RANGE FOR AUDIO SOURCE PORT

These two fields determine the UDP port range on SmartPTT Server host. The ports within this range are reserved for voice traffic between radio users and SmartPTT Express Client users.

Default values in the fields are 49152.

AMBIENCE LISTENING DURATION (S)

Provides the ability to set ambience listening duration: **Unlimited** (ambience listening stops only when canceled by the dispatcher or when the radio system's maximum transmission duration limit is reached) or not longer than the specified interval.

DIMETRA USER CREDENTIALS

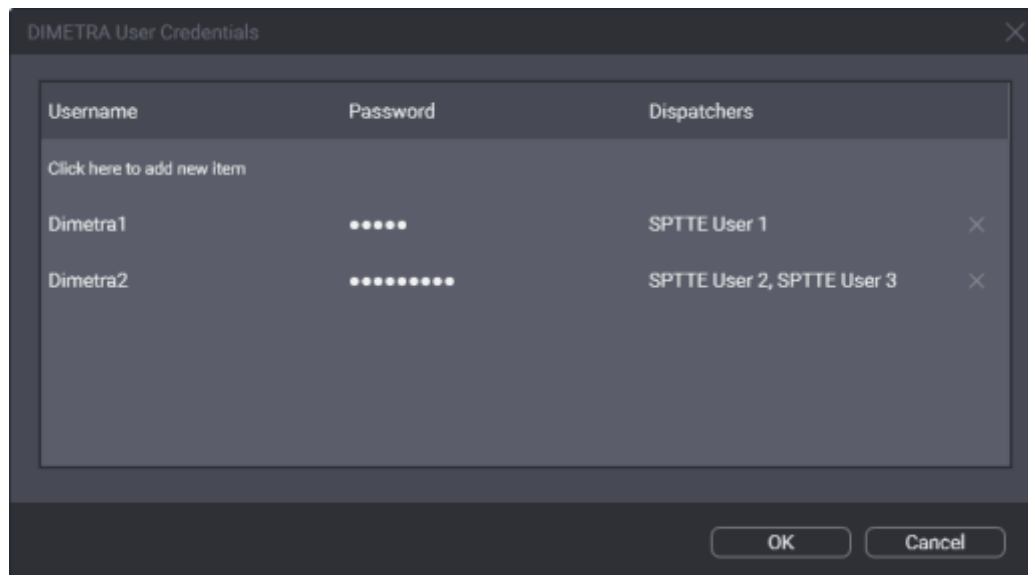
Opens the **DIMETRA User Credentials** window. For details, see [DIMETRA User Credentials Window](#) on page 184.

SYNC

When the button is clicked, SmartPTT Server starts connecting to DIMETRA Express for synchronization via DCS (voice dispatch) link.

A.8.3 DIMETRA USER CREDENTIALS WINDOW

This window provides the ability to associate DIMETRA Express user accounts with SmartPTT Express Client user accounts. Each DIMETRA Express user can be associated with multiple SmartPTT Express Client users, but not the other way around.



User associations are arranged in a table that consists of the following columns:

USERNAME

For each table entry, shows usernames that must correspond to login names in DIMETRA Express. Double clicking a name makes it editable.

- i DIMETRA Express does not provide login names; all names must be typed by administrators.

PASSWORD

For each table entry, shows password in the form of bullet symbols. Double clicking a password makes it editable and available for preview.

VIEW PASSWORD

The button is available next to the password bullets while the password is being edited. Pressing and holding the button reveals password symbols instead of bullets.

DISPATCHER

Shows SmartPTT Express Client users associated with a given DIMETRA Express user account. Double clicking a field opens the list of users added in the **Users** tab of the SmartPTT Express Configurator. For details, see [Users](#) on page 172.

Clicking a list entry associates that user with the DIMETRA Express user account. Clicking it again deletes the association.

On the right of each entry, one of the following buttons appears.

OK

The button appears when an entry is being edited. Clicking it accepts changes and substitutes it with the **Remove** button.

REMOVE

Removes the corresponding entry from the table. If the user double clicks an entry, all **Remove** buttons are replaced with **OK** buttons to prevent accidental removal.

The **Click here to add new item** control is located at the bottom of the table. Clicking it adds a new entry to the table.

At the bottom of the window, the following buttons are available:

OK

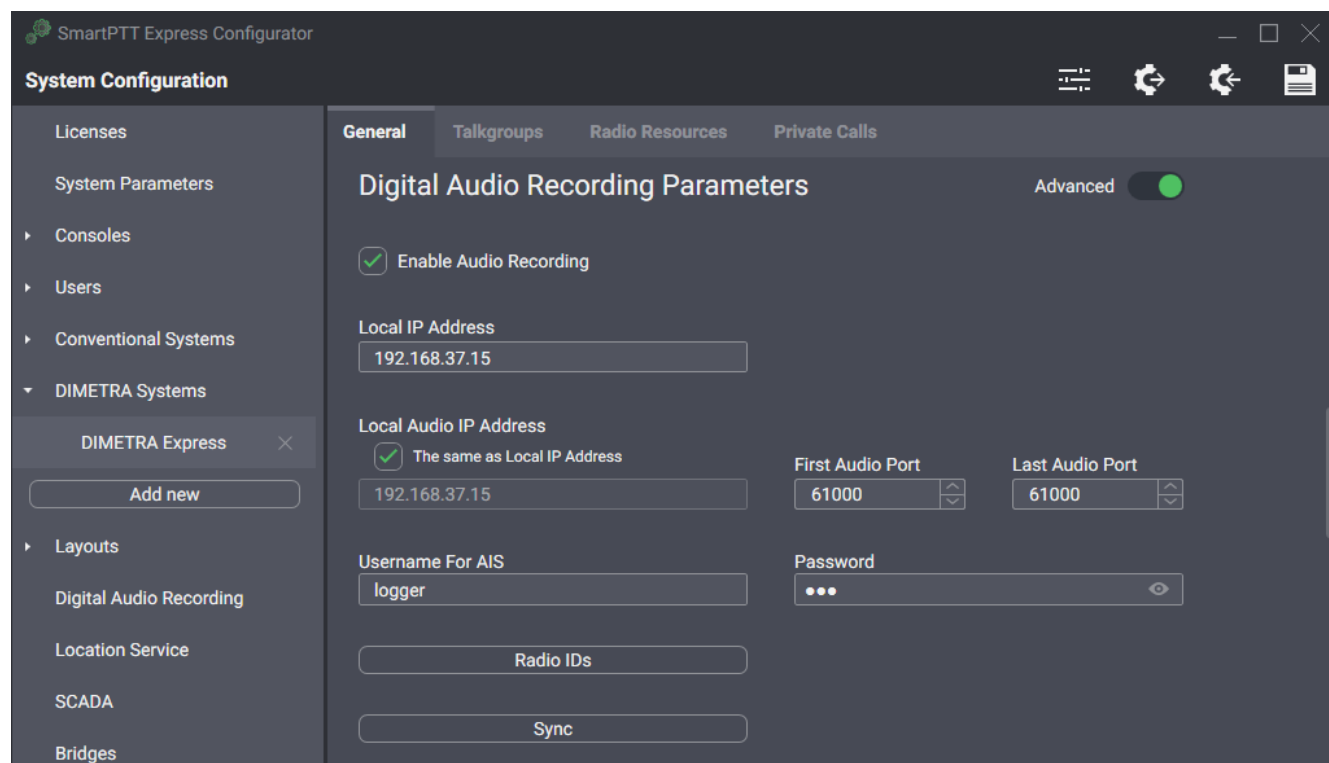
Accepts all changes and closes the window.

CANCEL

Cancels all changes and closes the window. This will restore accidentally removed entries.

A.8.4 DIGITAL AUDIO RECORDING PARAMETERS

The area provides DIMETRA Express Voice Logger network interface settings.



In the area, the following settings are available:

ENABLE AUDIO RECORDING

This check box determines if the SmartPTT Server acts as the external voice logger for DIMETRA Express or not. If the check box is selected, the Digital Audio Recording Parameters become available for editing. If it is cleared, the parameters become hidden and SmartPTT Server is not used as an external voice logger.

ADVANCED

If turned on, all parameters in the area are shown and available for editing. Otherwise, only the **Local IP Address**, **Username for AIS** and **Password** fields, and the **Radio IDs** button are displayed.

LOCAL IP ADDRESS

The SmartPTT Server IPv4 address designated as the external voice logger in DIMETRA Express. The address must be different from that used in the **Radio System Parameters** area. For details, see [Radio System Parameters](#) on page 179.

LOCAL AUDIO IP ADDRESS

The SmartPTT Server IP address used to receive voice records from DIMETRA Express.

THE SAME AS LOCAL IP ADDRESS

If selected, the value in the **Local IP Address** field is copied to the **Local Audio IP Address** field, which cannot be edited.

FIRST AUDIO PORT

The lowest port number in the dedicated SmartPTT Server UDP port range. The ports within the range are reserved for voice records reception from DIMETRA Express. The default port number is *61000*.

LAST AUDIO PORT

The highest port number in the dedicated SmartPTT Server UDP port range. Ports within the range are reserved for voice records reception from DIMETRA Express. The default port number is *61000*.

USERNAME FOR AIS

External voice logger login name, exactly as it is set in DIMETRA Express. For details, see [DIMETRA Express Configuration](#) on page 34.

PASSWORD

External voice logger password, exactly as it is set in DIMETRA Express. For details, see [DIMETRA Express Configuration](#) on page 34. The field automatically hides password symbols and replaces them with bullets.

VIEW PASSWORD

The button is available next to the password bullets. Pressing and holding the button reveals password symbols instead of bullets.

RADIO IDS

Opens the **Radio IDs** window. For details, see [Radio IDs Window](#) below.

SYNC

When the button is clicked, SmartPTT Server starts connecting to DIMETRA Express for synchronization via AIS (digital audio recording) link.

A.8.5 RADIO IDS WINDOW

The window provides the list of DIMETRA Express users. The window can be opened in the following ways:

- By clicking the **Radio IDs** button in the **Digital Audio Recording Parameters** area.
- By clicking the **Assign** button in the **Outdoor Positioning Parameters** area.

If opened by clicking the **Radio IDs** button, the window provides the ability to select radio users whose transmissions will be stored in the SmartPTT Express database as voice records if they are either the recipient or the initiator of the voice transmission.

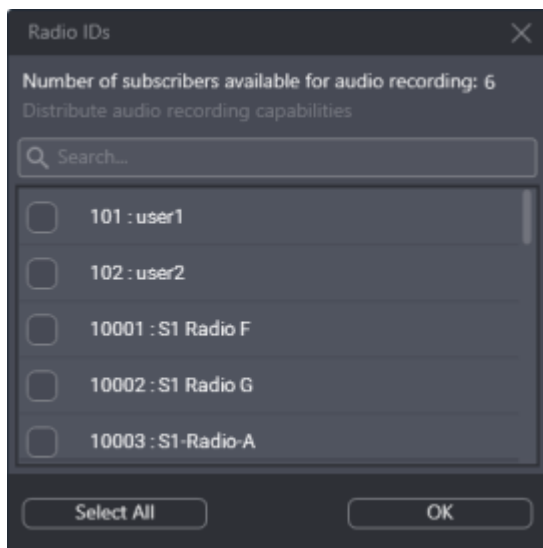


DIMETRA Express may not provide a voice transmission to SmartPTT Express if its voice logging capacity is exceeded.



If both initiator and recipient of a transmission are selected, two identical voice transmissions will be stored in the database.

If the window is opened by clicking the **Assign** button, it provides the ability to select users whose outdoor coordinates will be stored in the SmartPTT Express database.



In the window, the following elements are available:

SEARCH...

When text is entered in the search field, only the radio users whose name or ID contain that text are shown in the list.

{USER ID}: {USER NAME}

If the check box is selected, the user is affected by the SmartPTT Express service (voice logging or outdoor location).

i The external voice logger is present in the list as a radio user. Do not select its checkbox.

SELECT ALL / DESELECT ALL

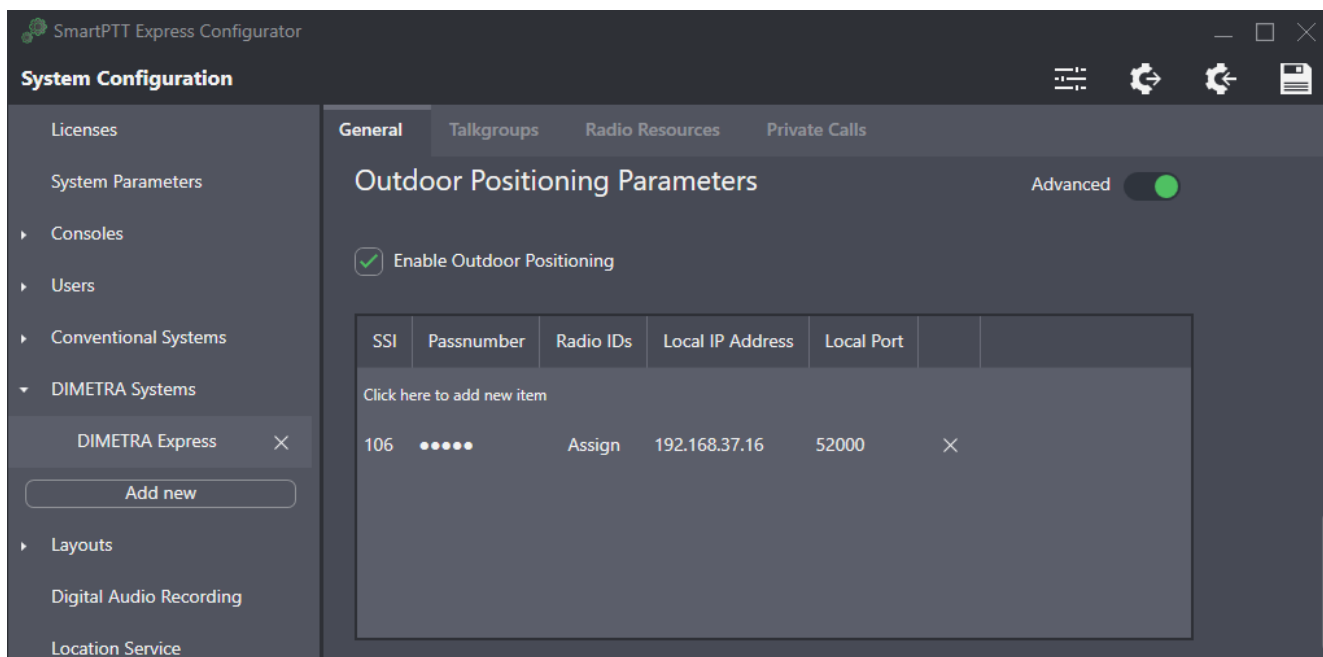
Selects/clears the check boxes to the left of all radio users in the list.

OK

Accepts changes and closes the window.

A.8.6 OUTDOOR (GPS) POSITIONING PARAMETERS

The area provides the parameters that identify SmartPTT Server to DIMETRA Express as a Short Data Host. After configuration, SmartPTT Server will be able to receive radio user outdoor positioning data.



In the area, the following elements are available:

ENABLE OUTDOOR POSITIONING

If the check box is selected, the Short Data Host table appears with all the parameters required to identify SmartPTT Server as a Short Data Host in DIMETRA Express.

ADVANCED

If turned on, all columns in the Short Data Host table are shown and available for editing. Otherwise, only the **SSI**, **Pass Number** and **Radio IDs** columns are displayed.


The Short Data Host table consists of the following columns:

SSI

The identifier of the Short Data Host to which radios report their location data. The parameter must be the same as the **Host ID** parameter in DIMETRA Express settings. For details, see “Short Data Transport” in *DIMETRA Express Online Help*.

PASS NUMBER

The code that is used for Short Data Host authentication in DIMETRA Express. The number shall copy the Host Passnumber parameter in DIMETRA Express settings. For details, see “Short Data Transport” in *DIMETRA Express Embedded Help*.

 In DIMETRA Express, passnumbers cannot be viewed after configured. Contact the DIMETRA Express service engineer to receive the passnumber used in DIMETRA Express for SmartPTT Express Host ID.

RADIO IDS

Contains the **Assign** button that opens the **Radio IDs** window. For details, see [Radio IDs Window](#) on page 189.

LOCAL IP ADDRESS

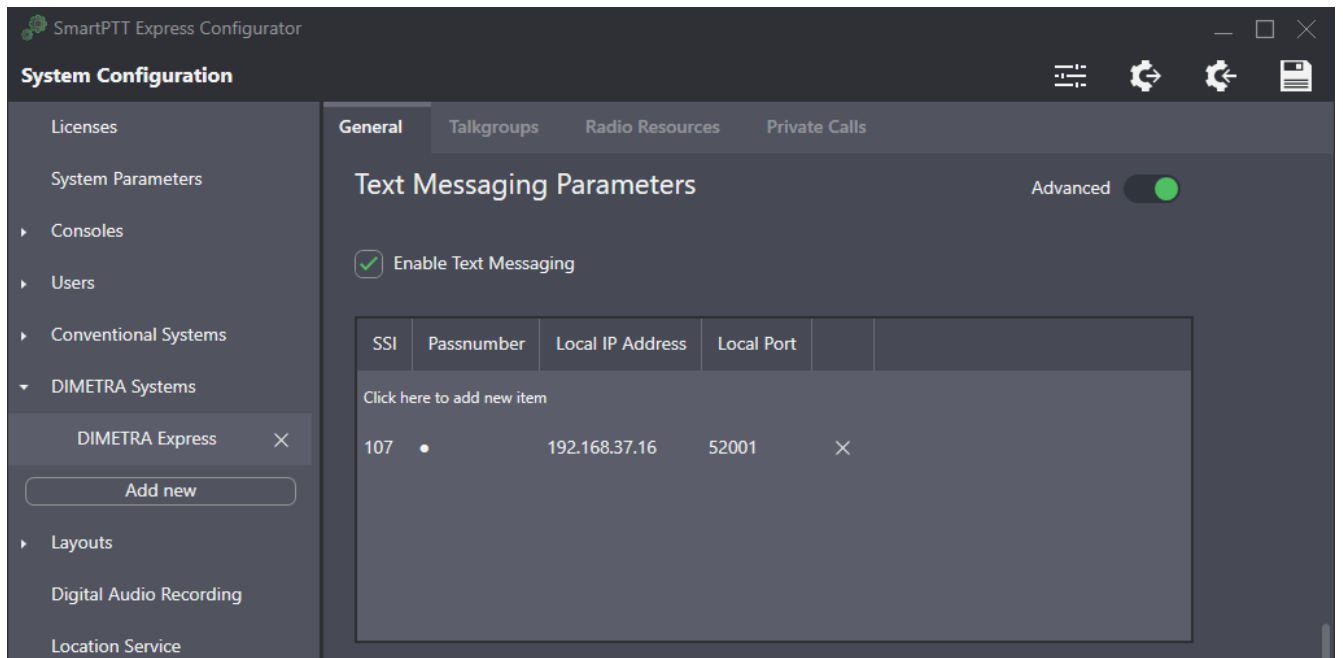
The IP address of SmartPTT Server. The address must be exactly the same as the one used in the **Local IP Address** field (the **Radio System Parameters** area). For details, see [Radio System Parameters](#) on page 179.

LOCAL PORT

The number of the port used by SmartPTT Server for sending location requests to DIMETRA Express and receiving location updates from it. Possible values range from **1** to **65535**.

A.8.7 TEXT MESSAGING PARAMETERS

The area provides the parameters that identify SmartPTT Express Client applications to DIMETRA Express as Short Data Hosts. After configuration, SmartPTT Express Client users will be able to send and receive text messages.



In the area, the following elements are available:

ENABLE TEXT MESSAGING

If the check box is selected, the Short Data Host table appears with all the parameters required to identify SmartPTT Express Client applications as Short Data Hosts in DIMETRA Express.

ADVANCED

If turned on, all columns in the Short Data Host table are shown and available for editing. Otherwise, only the **SSI** and **Pass Number** columns are displayed.


The Short Data Host table consists of the following columns:

SSI

Unique identifier of the Short Data Host that corresponds to a DIMETRA Express dispatch console user. The parameter must be the same as the **Host ID** parameter in DIMETRA Express settings. For details, see “Short Data Transport” in *DIMETRA Express Online Help*.

PASS NUMBER

The code that is used for Short Data Host authentication in DIMETRA Express. The number must be the same as the **Host Passnumber** parameter in DIMETRA Express settings. For details, see “Short Data Transport” in *DIMETRA Express Embedded Help*.

 In DIMETRA Express, passnumbers cannot be viewed after configured. Contact the DIMETRA Express service engineer to receive the passnumbers used in DIMETRA Express for SmartPTT Express Host ID.

LOCAL IP ADDRESS

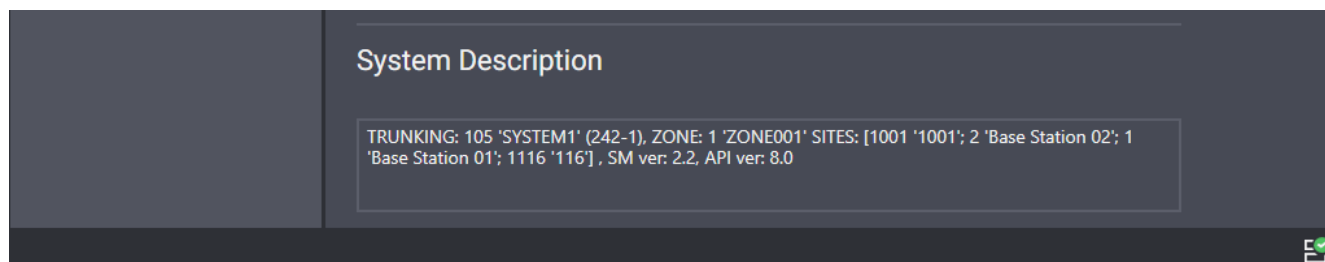
The IP address of SmartPTT Server. The address must be exactly the same as the one used in the **Local IP Address** field (the **Radio System Parameters** area). For details, see [Radio System Parameters](#) on page 179.

LOCAL PORT

The number of the port used by SmartPTT Server for sending and receiving text messages. Possible values range from **1** to **65535**.

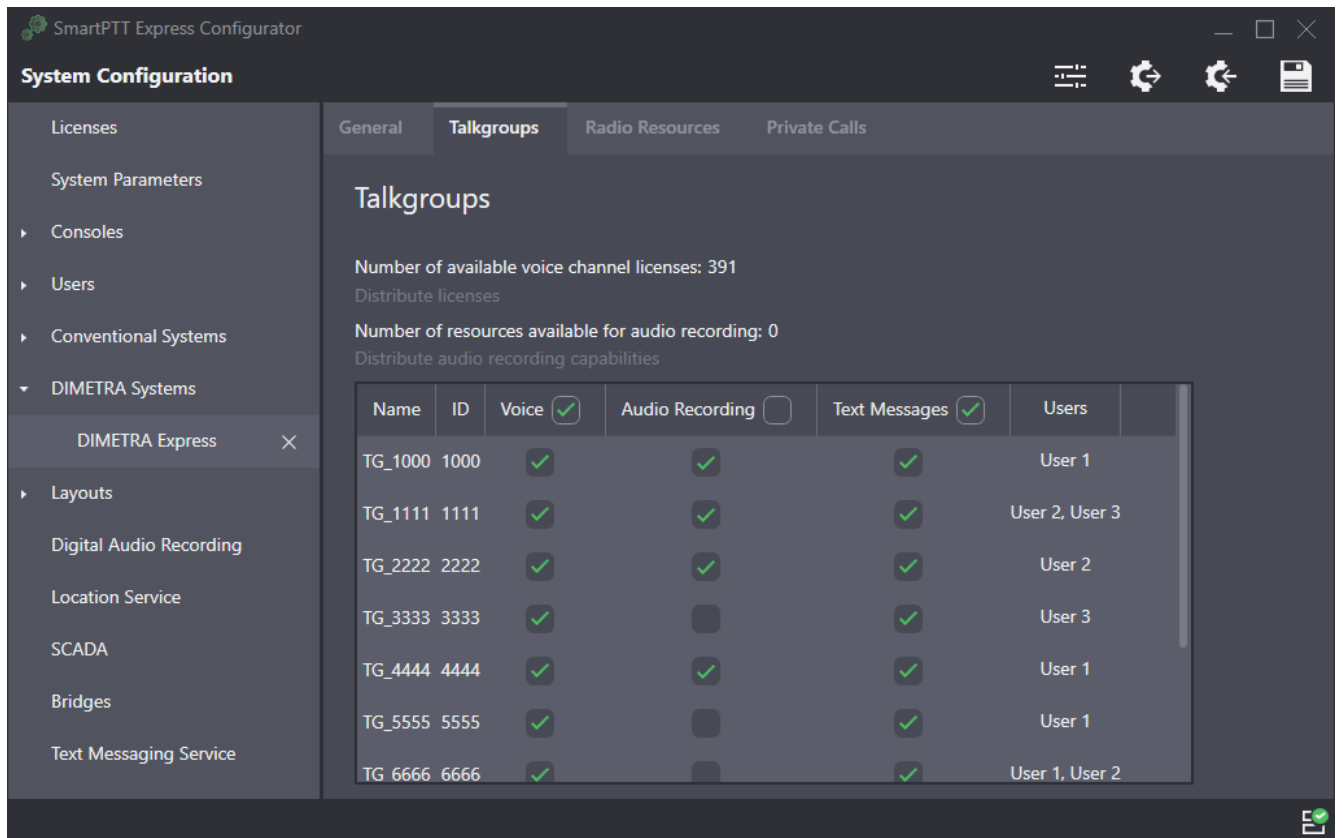
A.8.8 SYSTEM DESCRIPTION

The area provides a text box where the DIMETRA Express description appears. The description is imported from DIMETRA Express.



A.8.9 TALKGROUPS

The tab provides a list of talkgroups configured in DIMETRA Express and controls to configure their availability in SmartPTT Express.



On the right pane, the following elements are available:

NUMBER OF AVAILABLE VOICE CHANNEL LICENSES

Displays the number of unassigned voice channel licenses. The number is limited by the installed license and shared between conventional resources and DIMETRA resources.

DISTRIBUTE LICENSES

Enables voice for as many resources as the number of unassigned voice channel licenses allows.

NUMBER OF RESOURCES AVAILABLE FOR AUDIO RECORDING

Displays the number of resources for which audio recording can be turned on. The number is limited by DIMETRA audio recording capacity and shared between DIMETRA talkgroups, analog channels and radios.

DISTRIBUTE AUDIO RECORDING CAPABILITIES

Enables audio recording for as many resources as DIMETRA audio recording capacity allows.

Talkgroups are listed in a table that consists of the following columns:

NAME

Talkgroup name received from DIMETRA Express. It cannot be changed in SmartPTT Express Configurator.

ID


Talkgroup ID received from DIMETRA Express. It cannot be changed in SmartPTT Express Configurator.

VOICE

If the check box in this column is selected, voice calls are available for the talkgroup in SmartPTT Express Client. If the maximum number of talkgroups has been reached, selecting the check box becomes impossible.


AUDIO RECORDING

If the check box in this column is selected, the talkgroup calls will be recorded by SmartPTT Express if DIMETRA Express provides them. DIMETRA Express may not deliver audio for the call if the number of simultaneous calls in the system exceeds the licensed voice logging capacity. If the check box is cleared, the talkgroup calls will not be recorded.

 Check boxes do not guarantee group call recording, only its provision to SmartPTT Express.

TEXT MESSAGES

If the check box in this column is selected, incoming and outgoing text messages between the talkgroup and SmartPTT Express Client applications will be enabled.


 This does not affect text messaging availability to DIMETRA Express radio users.

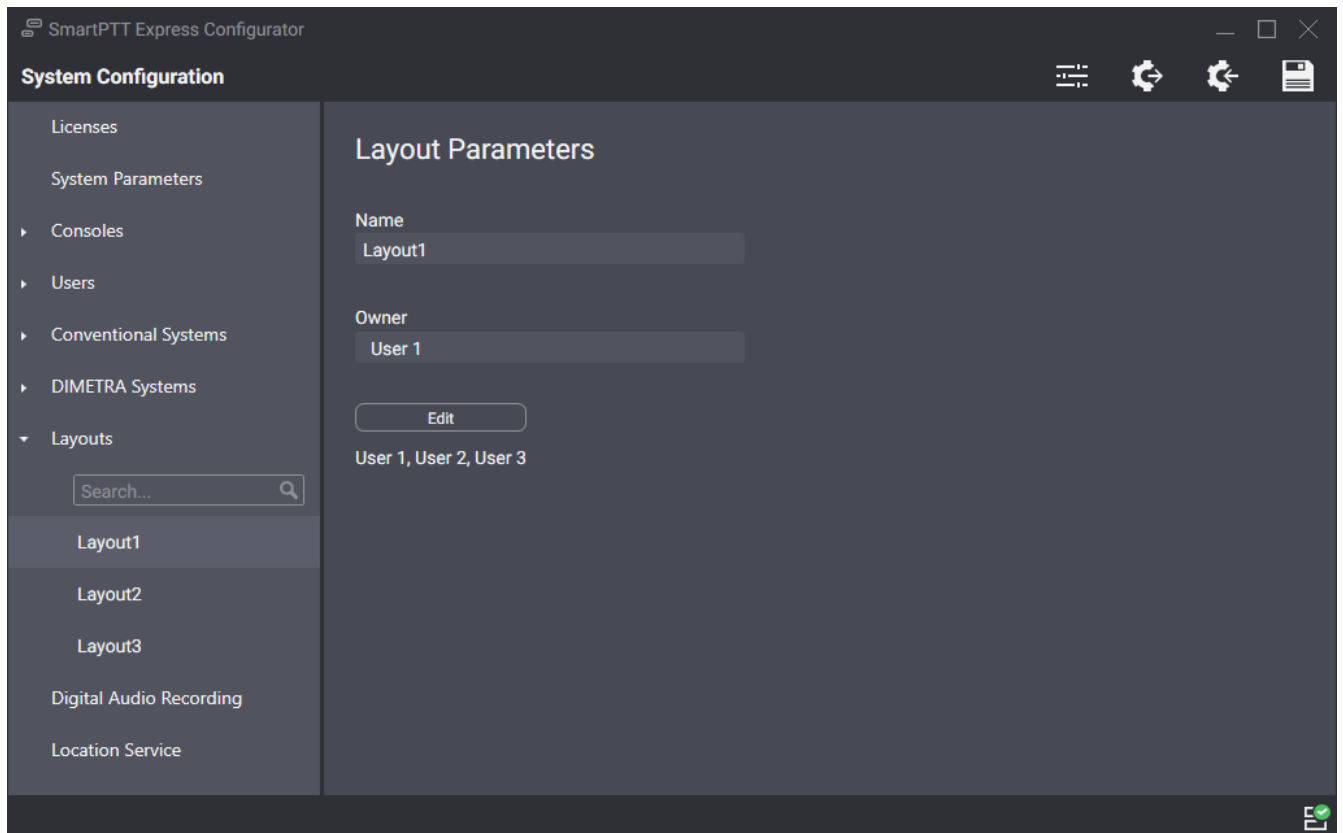
USERS

The list of SmartPTT Express users who can add and operate the talkgroup.

A.8.10 LAYOUTS

The expandable tab provides the list of layouts created in SmartPTT Express Client. Clicking an entry displays the corresponding information on the right pane.

 If SmartPTT Express Configurator is running at the time of a new layout creation, the layout will not appear on layout list until SmartPTT Express Configurator is restarted.



On the right pane, the following settings are available:

NAME

The layout name specified by the SmartPTT Express Client user that has created it. Layouts cannot be renamed.

OWNER

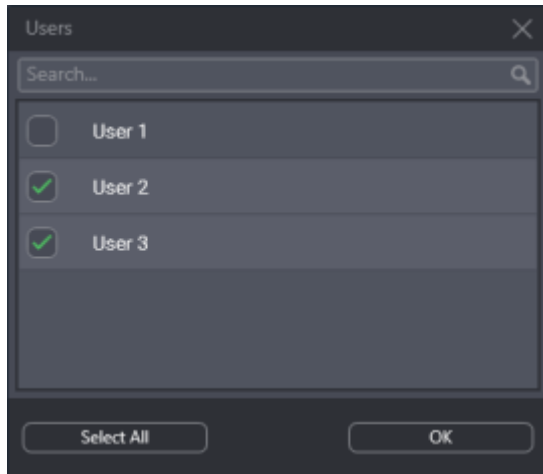
The name of the user who created the layout.

EDIT

Opens the **Users** window. For details, see [Users Window](#) on page 200.

A.8.11 USERS WINDOW

The window provides the ability to manage access to a layout.



In the window, the following elements are available:

SEARCH...

When text is entered in the search field, only the users whose names contain that text are shown in the list.

{USER NAME}

If the check box is selected, the user can load the layout in SmartPTT Express Client. If the check box is cleared, the user cannot load the layout unless he/she is its owner. For details, see [Layouts](#) on page 198.

SELECT ALL / DESELECT ALL

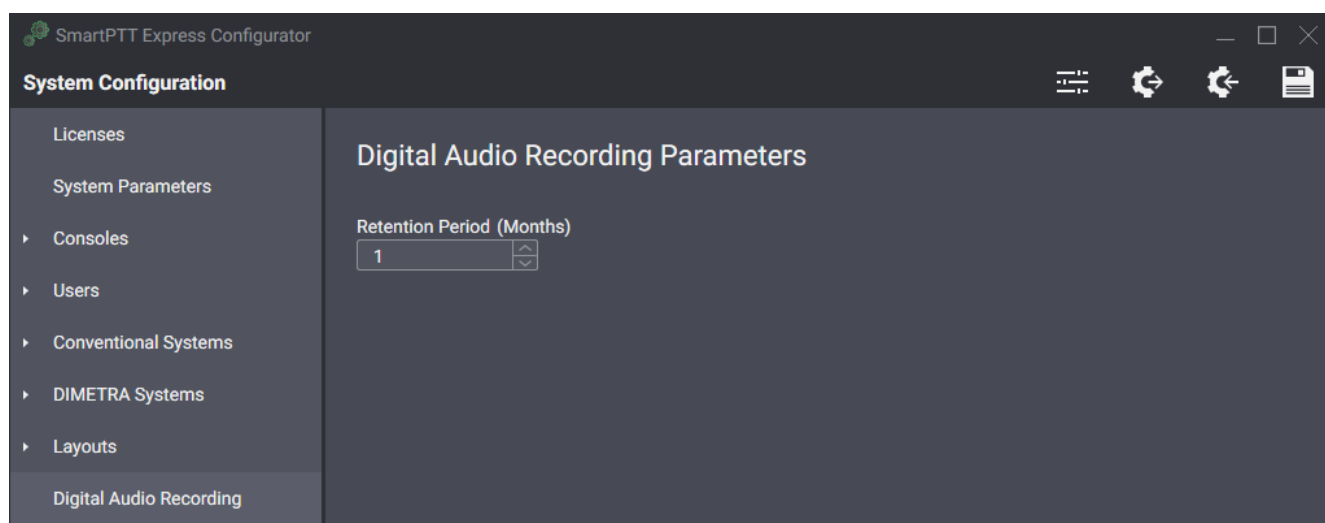
Selects/clears the check boxes to the left of all users in the list.

OK

Accepts changes and closes the window.

6.8 DIGITAL AUDIO RECORDING

The tab provides voice record database settings.



On the right pane, the following settings are available:

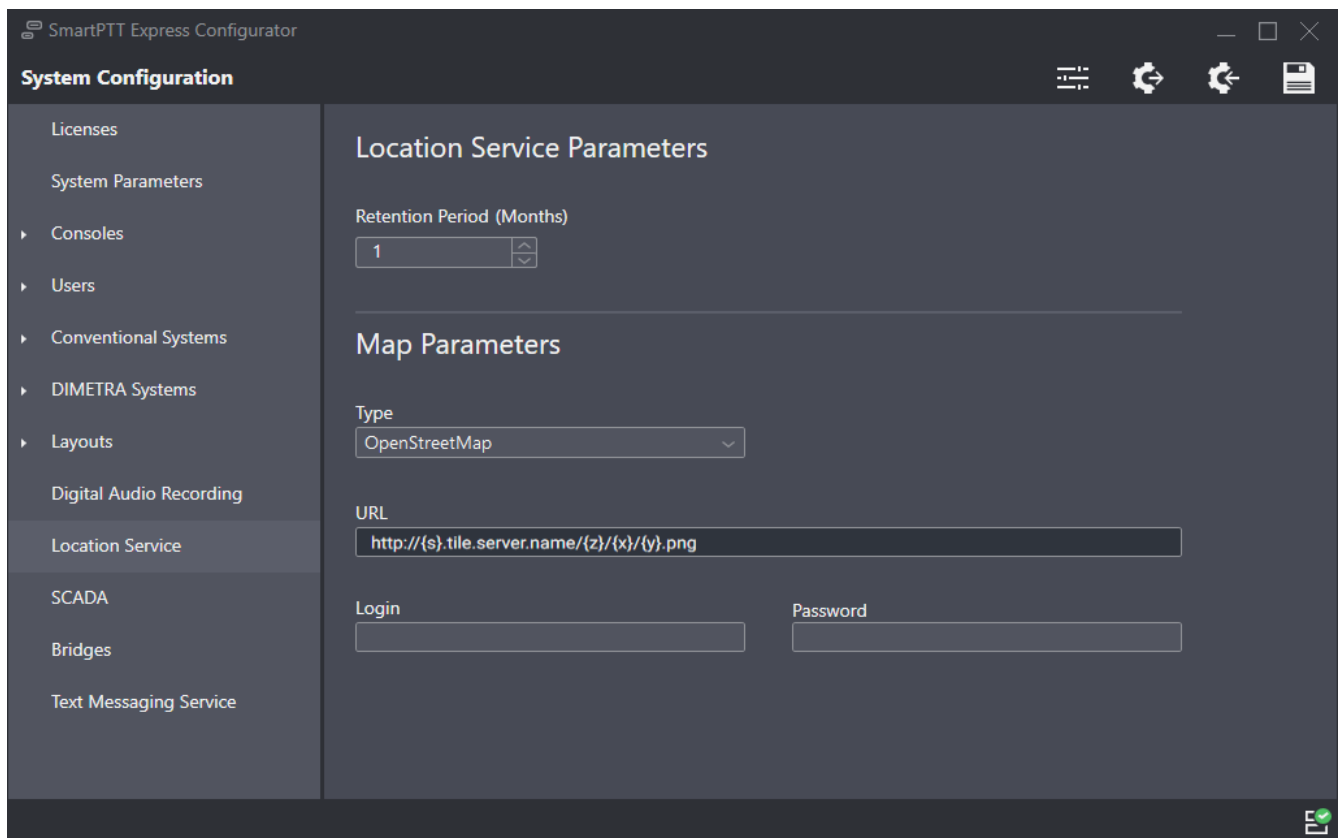
RETENTION PERIOD

Time period (in months) after which voice records are deleted from the Audio Archive. The minimum value is *1*, the maximum is *12*.

i SmartPTT Express defines “month” as 30 days.

A.9 LOCATION SERVICE

The tab provides settings related to tracking radio user location. In particular, it provides location storage and map provider access settings.



On the right pane, the following settings are available:

RETENTION PERIOD

Duration of coordinates storage in the SmartPTT Express database. When the retention period expires, coordinates will be removed from the database.


TYPE

The type of maps used to show radio user location in SmartPTT Express Client. *OpenStreetMap* refers to HTTP-based OSM maps; *Local Map Atlas* refers to OSM maps stored as files.

URL

The source of maps for all SmartPTT Express Client applications. The contents of the field depend on the option selected in the **Type** field:

- If **OpenStreetMap** is selected, the URL field contains the URL address of the map provider. The address may include substitutions for user login and password. For login inclusion in the URL address, the {login} substitution must be used. For password inclusion in the URL address, the {password} substitution must be used.
- If **Local Map Atlas** is selected, the URL field contains the path to the map files.

 If substitutions are used, the following fields must not be empty.

LOGIN

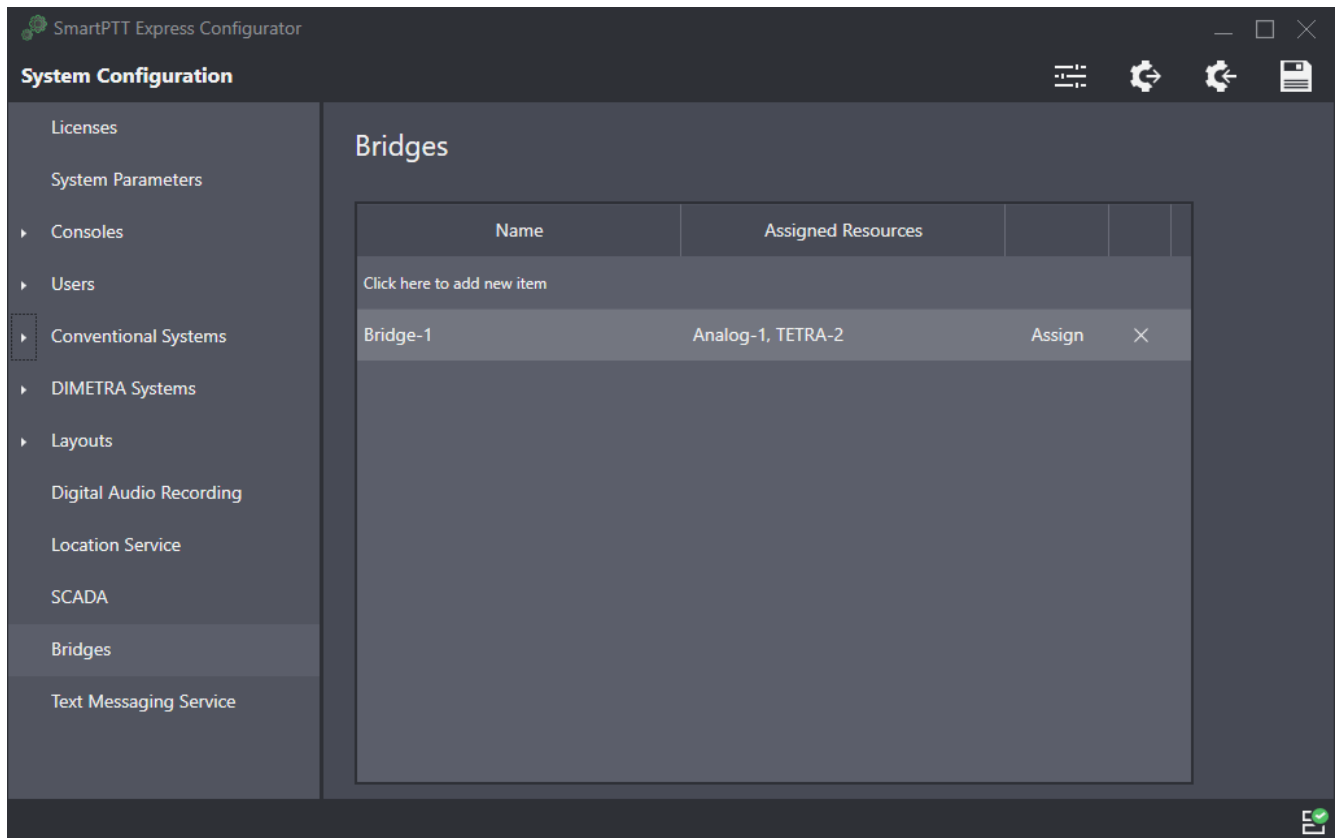
User login that is used for authentication in the map provider server. It is required if the map provider uses basic HTTP authentication or the {login} substitution is used in the provider URL address. If no authentication is required, the field can be left empty.

PASSWORD

User password that is used for authentication in the map provider server. It is required if the map provider uses basic HTTP authentication or the {password} substitution is used in the provider URL address. If no authentication is required, the field can be left empty.

A.10 BRIDGES

The tab provides the ability to add and configure bridges between donor radios connected to RG-1000e radio gateways.



Bridges are listed in a table that consists of the following columns:

NAME

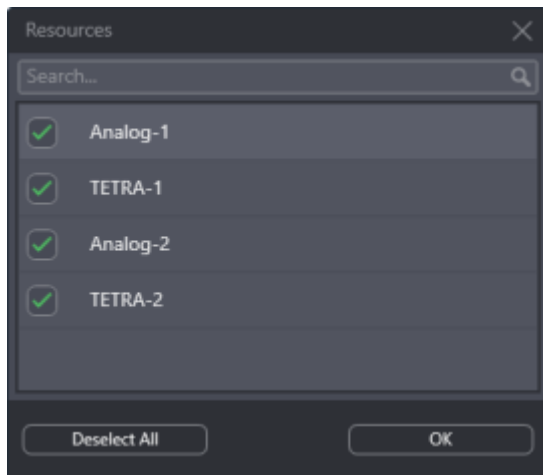
The name of the bridge that will be displayed in the **Patch Monitor** panel in SmartPTT Express Client.

ASSIGNED RESOURCES

The list of donor radios included in the bridge. The column also contains the Assign button that opens the Resources window, providing the ability to add/remove donor radios. For details, see [Resources Window](#) on page 205.

A.10.1 RESOURCES WINDOW

The window provides the list of donor-radios connected to RG-1000e radio gateways. It opens when the user clicks the **Assign** button on the **Bridges** tab.



In the window, the following elements are available:

SEARCH...

When text is entered in the search field, only the resources whose name contains that text are shown in the list.

{RESOURCE NAME}

If the check box is selected, the resource is included in the bridge.

SELECT ALL / DESELECT ALL

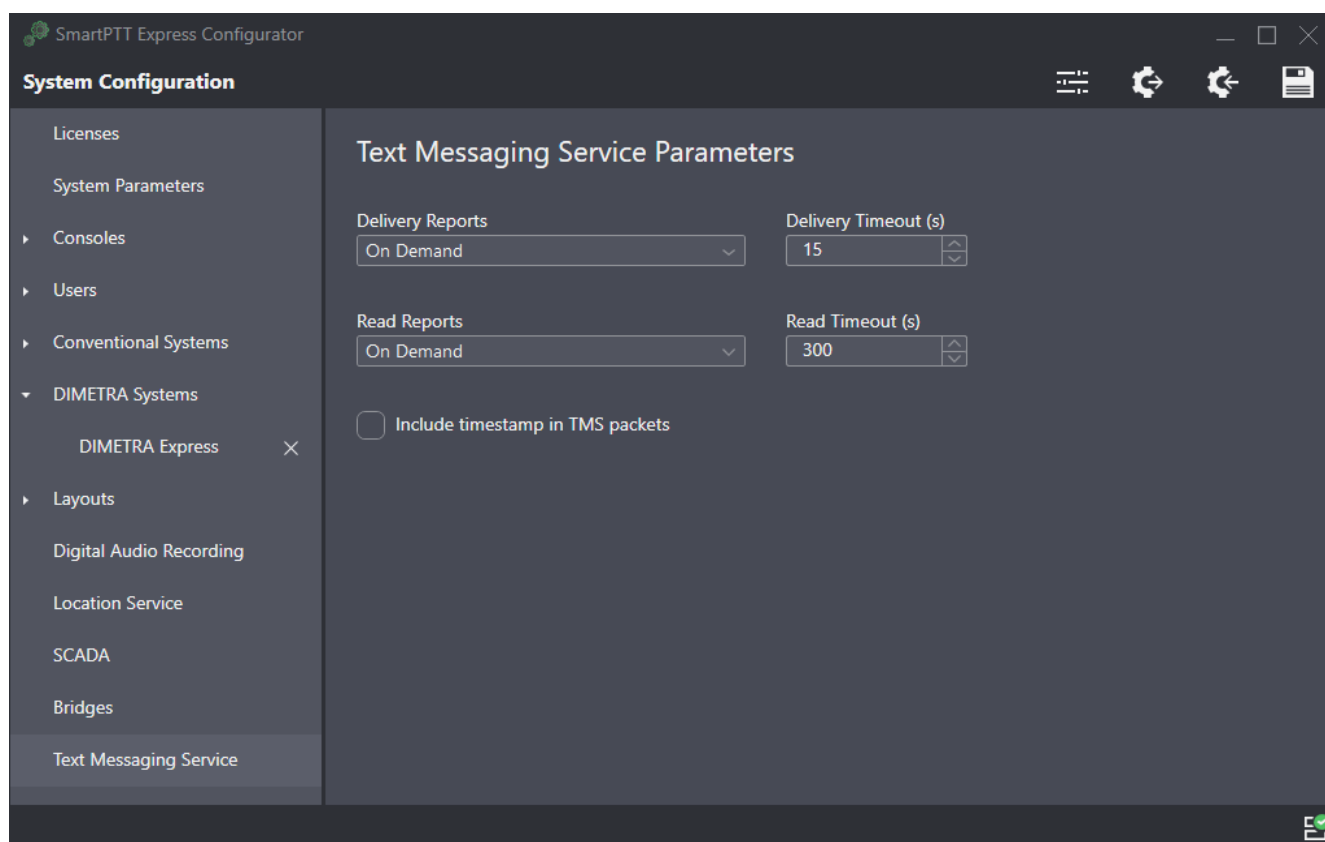
Selects/clears the check boxes to the left of all resources in the list.

OK

Accepts changes and closes the window.

A.11 TEXT MESSAGING SERVICE

This tab provides the ability to configure text messaging service parameters in SmartPTT Express.



On the right pane, the following settings are available:

DELIVERY REPORTS

Determines if and how outbound text message delivery reports are requested. The following options are available:

- **Never:** Delivery reports for outbound text messages are unavailable.

- **Always:** SmartPTT Server automatically requests a delivery report for every outbound text message.
- **On Demand:** SmartPTT Express Client users can request delivery reports on a per-message basis.

DELIVERY TIMEOUT (S)

The time in seconds that SmartPTT Server waits for a delivery report.

READ REPORTS

Determines if and how outbound text message read reports are requested. The following options are available:

- **Never:** Read reports for outbound text messages are unavailable.
- **Always:** SmartPTT Server automatically requests a read report for every outbound text message.
- **On Demand:** SmartPTT Express Client users can request read reports on a per-message basis.

READ TIMEOUT (S)

The time in seconds that SmartPTT Server waits for a delivery report.

INCLUDE TIMESTAMP IN TMS PACKETS

If selected, SmartPTT Server will attach a timestamp to every outbound text message which will be displayed as message send time on the receiving device. Otherwise, delivery time will be displayed.

A.12 STATUS BAR

This bar appears at the bottom of the SmartPTT Express Configurator main window. It informs about the connection to the SmartPTT Server using the following indication:

CONNECTED

The icon appears if the SmartPTT Server connection is established successfully.

DISCONNECTED

The icon appears while the connection to the SmartPTT Server fails.

Successful connection is required to log on and edit SmartPTT Server settings. When the connection is lost, the user automatically logs off from the SmartPTT Express Configurator losing all configuration changes.



Contact Us

SmartPTT Express is developed and released by Elcomplus, Inc., a Florida corporation (US). For more information on the product, visit <https://smartptt.com/products/smartptt-express/>.

TECHNICAL SUPPORT

Support of the SmartPTT Express product is provided by the SmartPTT Technical Support Center. The official web page of the center is support.smartptt.com.

To contact a technical support engineer, use the following information:

- Email address: support@smartptt.com
- Request support online: <http://support.smartptt.com/hc/en-us/requests/new>
- Phone/fax number: +1 786-362-5525

By default, phone calls are answered in English. By request, we can provide a limited support in Spanish.

When your request is being handled, you may receive additional contact information that includes engineer phone numbers, Skype contacts, and more.

TECHNICAL SUPPORT DISCLAIMER

SmartPTT Technical Support Center does not resolve issues in Motorola Solutions hardware and/or software. If the hardware and software is improperly configured or inoperable, contact the Motorola Solutions representative in your region.

Technical Support Center does not resolve issues that occurred after attempts to use any undocumented SmartPTT Express features unless those were used by the Elcomplus, Inc. technical support engineer or other Elcomplus, Inc. representative. Please inform technical support engineers if any undocumented features or configurations were used.

SALES & MARKETING

If you have any questions related to the product sales, email to sales@smartptt.com

Use the same address to resolve marketing-related questions.

DOCUMENTATION

To improve customer information, Elcomplus, Inc. appreciates any feedback on this document.

Please send your comments, suggestions, and report documentation issues to

support@smartptt.com.