

SmartPTT Express Installation and Configuration Guide



Revision History

Revision	Description	Date
2.1.1	Third revision of the document. The document is compliant with SmartPTT Express 2.1.17.	
	• Added:	
	Offline maps on page 23	
	Integration with SmartPTT Express SCADA on page 60	
	Configuring SmartPTT Express SCADA Connection on page 60	
	• Modified:	
	Map Providers on page 23	
	HTTP-based maps on page 24	
	Changing Language on page 37	
	Configuring SmartPTT Express Server Interfaces on page 41	
	Editing Miscellaneous Settings on page 42	
	Adding & Editing DIMETRA Express Connection on page 46	
	<u>Configuring Voice Dispatch</u> on page 47	
	Configuring Location Service in SmartPTT Express on page 58	
	Language and grammar enhancements	

2.1.0	Second revision of the document. The document is compliant with SmartPTT Express 2.1.	June 2019
1.0	Initial revision of the document. The document is compliant with SmartPTT Express 2.0.	March 2019

Revision History Conventions

Each document has its own revision number. Revision number of the initial release is 1.0. For the following releases, it consists of three numbers separated with dots.

The first and the second numbers represent the product version the document complies with. The third number (edition) indicates that the document content is modified if compared with the previous revision. Modifications can include various enhancements, issue fixes and more. Changes between document revisions are available in the table for a limited number of editions.

With each new release, revision history provides edition updates only for the editions of that release.

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About This Document

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 computer operating system and provides brief information on how to maintain the software.

Conventions & Assumptions

The document uses the following conventions:

Example
the Save button
the Always option
https://smartptt.com/products/smartptt-express/
See <u>Glossary</u> on page 98.
SmartPTT Express User Guide

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 other products configuration until it is explicitly required. In such cases, a reference to another manuals is provided with information on what must be performed.

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. •

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-timeservice-top)

Chapter 1. Overview

SmartPTT Express is a dispatch software for DIMETRA™ Express, a multisite trunked radio system from Motorola Solutions. DIMETRA is Motorola's brandname for TETRA-compliant radio systems. For more information on DIMETRA Express, see <u>https://www.motorolasolutions.com/en_xu/products/tetra/infrastructure/tetra-corenetwork/dimetra-express.html</u>.

SmartPTT Express is a client—server software that supports standalone and collocated installation of its server and client components.

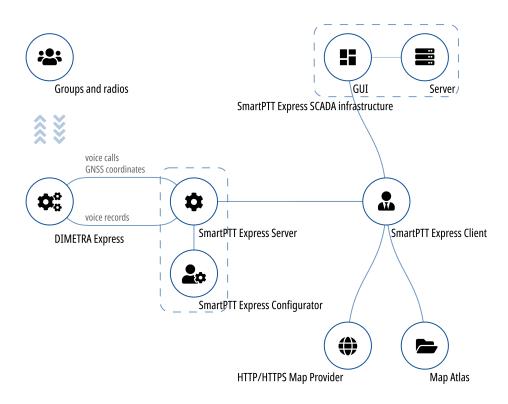


Figure 1: SmartPTT Express Overview

SmartPTT Express connects to the DIMETRA Express Server over IPv4 and receives all the supported dispatch features from it. Note that only one DIMETRA Express Server is currently supported.

1.1 Components

SmartPTT Express includes the following components: SmartPTT Express Server, SmartPTT Express Configurator, and SmartPTT Express Client.

1.1.1 SmartPTT Express Server & SmartPTT Express Configurator

SmartPTT Express 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 Express Server**.

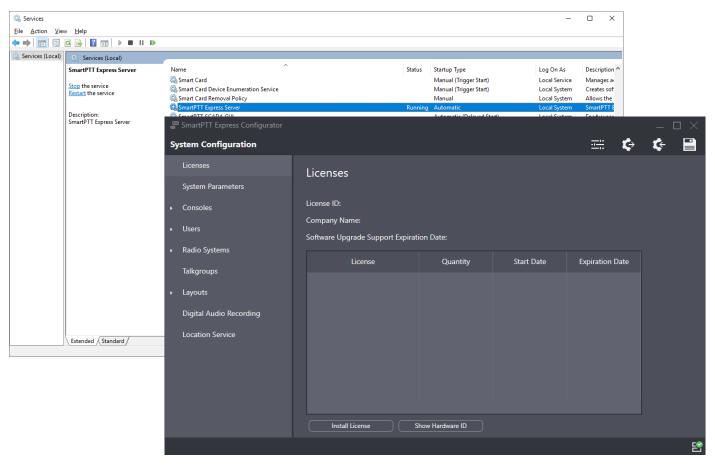


Figure 2: SmartPTT Express Server Service and SmartPTT Express Configurator

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, and saves changes.

The application is installed together with SmartPTT Express Server, on the same computer. It is unavailable for standalone installation and is not intended for remote connection to SmartPTT Express Server.

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.

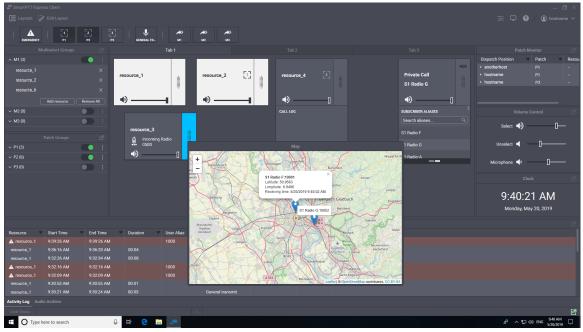


Figure 3: SmartPTT Express Client Overview (Example)

SmartPTT Express Client requires a continuous connection to SmartPTT Express Server. If the connection is lost, SmartPTT Express Client immediately logs off the user to prevent data desynchronization.

1.1.3 Other Software

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

1.2 Features

SmartPTT Express provides multiple features.

Dispatch features

- Incoming and outgoing group calls (Group PTT).
- System-wide call.
- Call parties identification.
- Half-duplex and full-duplex private calls (individual calls).
- Various transmit priorities: General Transmit, Instant Transmit, All-Points Bulletin (APB) Transmit.
- Single & multiple talkgroup selection.
- Incoming emergency alarms and emergency calls.

- Talkgroup patching.
- Voice logging & records playback.
- 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).
- Communication with other SmartPTT Express Client users over DIMETRA Express.

User Features

- Tile-based 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.

PTT Accessories Support

- 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
- Holmco D-9 (Holmberg GmbH & Co. KG D9 USB TSS V1.00)

Administration features

• Access to DIMETRA radio users and talkgroups over DIMETRA Express.

- 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 the Elcomplus LLC representative in your region.

1.3 Capacity

SmartPTT Express provides the following capacity:

- Single active radio system (DIMETRA Express).
- 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 3 multiselect groups (1 active at a time); each may include up to 16 talkgroups.
- Up to 3 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 Radio System Compatibility

SmartPTT Express supports DIMETRA™ Express 1.2 and 1.3 radio systems.

1.4.2 Hardware Requirements

Computer hardware intended to host SmartPTT Express software must comply with the minimum requirements provided in <u>Table 1</u>.

Table 1: Hardware Requirements

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

Parameter	Value
	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 or
	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
AN	10/100/1000 Base T
7/O Ports	1 video output
	2-channel audio output (SmartPTT Express Client hosts only
	1 microphone input (SmartPTT Express Client hosts only)

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

Notice:

These hardware specifications 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 LLC representative in your region.

1.4.3 Software Requirements

SmartPTT Express is a Windows-only software. Customer's operating system must comply with the requirements provided in <u>Table 2</u>.

Table 2: Operating System Requirements

Parameter	Value
Editions	Windows 10 Pro, version 1803 and 1809
	Windows 10 Enterprise, version 1803 and 1809
	Windows 10 Enterprise LTSC 2016
System Type	64-bit

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

1.4.4 Network Environment Requirements

When SmartPTT Express is configured and operable, the network it uses must comply with the requirements provided in Table 3.

Table 3: Network Environment Requirements

Parameter	Value
IP Addressing	IPv4 only
Maximum Packet Loss	1 %
Maximum Two-Way Delay	150 ms
Maximum Jitter	100 ms

Chapter 2. Environment Preparation

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

To interact with SmartPTT Express, DIMETRA Express must be configured to support dispatch consoles or voice logging that use its API. The configuration is possible if specific license is installed in DIMETRA. License permissions are provided in Table 4.

Name	Necessity	Description
DIMETRA Express Core	required	Core license.
Dispatch Console Position*	optional	Supports dispatch console connection with voice call, emer- gency alarm, patching and other functionality.
Voice Logging Capacity*	optional	Supports SmartPTT Express Server connection as an external voice logger and limits the number of simultaneous transmis-sions that can be recorded.
Radio User	required	Limits the number of radio users and console users in DIMETRA Express. Each console user refers to an authorized SmartPTT Express dispatcher.

Table 4: License Permissions in DIMETRA Express

* Outdoor positioning functionality requires one of the marked licenses.

To configure DIMETRA Express, the following actions must be performed:

- IP address of the SmartPTT Express Server host must be configured as the IP address of the dispatch console.
- Dispatch console users must be added, and their credentials (login and password) must be provided to the person who will configure SmartPTT Express Server.

Important:

DIMETRA Express does not provide means to view passwords of created dispatch console users, only to change them.

Minimum required information on those actions as well as the relevant information is available in *DIMETRA Express Maintenance Guide* and the embedded help of DIMETRA Network Manager. For additional information and the configuration assistance, contact Motorola Solutions representative in your region.

After completing DIMETRA configuration, the following information must be collected that will be required during SmartPTT Express configuration:

- IP address of the DIMETRA Express system (may refer to as "Link 1" IP address).
- Credentials of the dispatch console users (logins and passwords).
- Host names that must be used by SmartPTT Express to connect to DIMETRA Express and exchange data with it.

Voice Logging

SmartPTT Express can be used as an external voice logger in DIMETRA Express. For this, the following actions must be performed:

- IP address and TCP-port of the voice logger must be configured. For details, see "Voice Logging" in the embedded help of the DIMETRA Network Manager.
- Voice logger credentials must be configured and provided to the person who will configure SmartPTT Express.
- Additional host names must be received from DIMETRA Express.

Outdoor Location Support

DIMETRA Express is able to provide radio user location to SmartPTT Express. The location means a pair of coordinates, latitude and longitude. To support the feature, the following actions must be performed:

- At least one Short Data Host must be configured in DIMETRA Express. For details, see "Short Data" in the embedded help of the DIMETRA Network Manager.
- 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.

For configuration details and assistance, contact Motorola Solutions representative in your region.

2.2 Addressing Notes

SmartPTT Express and DIMETRA Express support IPv4 addresses only. No IPv6 is supported.

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

2.2.1 Communication with DIMETRA Express

During communication with SmartPTT Express Server, DIMETRA Express uses both IP addresses and host names. Use of host names cannot be avoided due to DIMETRA Express limitations. DIMETRA Express host names must be resolved to the DIMETRA Express IP on the SmartPTT Express Server host. This can be done in the following ways:

- If a DNS server is used in the Customer Enterprise Network, host names must be added to the DNS server.
- If no DNS Server is used, host names must be added to the <%WINDIR%>\System32\drivers\etc\hosts file on the SmartPTT Express Server host.

Up-to-date host names are available in the embedded help of the DIMETRA Express Network Manager. For details, contact Motorola Solutions representative in your region.

2.3 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 Express 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 the SmartPTT Express Server database. The storage location is specified during SmartPTT Express installation.

By default, the database size increases until less than 20% of the disk space is free. When this threshold is reached, SmartPTT Express Server overflow policy takes effect and the database stops growing.

Important:

SmartPTT Express Server database does not allocate (reserve) disk space.

Plan disk space using ~42 KB per one-minute call as a reference point. Calculate the required disk space using the expected call rate, number of simultaneous voice calls, and the storage retention timeout. For details, contact your system administrator.

2.4 System Roles & Authorization

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 and 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 are able to authorize in SmartPTT Express Configurator to change SmartPTT Express settings.

Each system role in SmartPTT Express must be associated with a Windows user group. It can be a default user group, or one created intentionally for SmartPTT Express. If the same group is assigned to multiple system roles, the most privileged role will apply.

Notice:

All user groups must be part of the same Windows domain, or exist on the SmartPTT Express Server host.

A user account may belong to multiple groups at once. In this case, the user receives the most privileged role.

For details on the system roles configuration, see Assigning User Groups to System Roles on page 40.

Required User Account Settings

SmartPTT Express has the following requirements to Windows user accounts:

- User accounts must be enabled.
- User password must not be expired at the moment of use.
- Users must not be required to change their passwords at next logon.

2.5 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 application.

Computers intended to host SmartPTT Express 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.

2.6 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 <u>https://docs.microsoft.com/en-us/windows-server/networking/windows-time-service/windows-time-service-top</u> ("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.

2.7 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 opened, you must reopen it to apply changes.

2.8 Antivirus & Firewall Configuration

Customer antivirus or firewall software, at some configurations, 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. For details, see <u>Table 5</u>.
- Unlock network traffic for specific port numbers in the firewall software. For details, see <u>Table 6</u>.

Table 5: Root Directories with Executable Files and Subfolders

Host	Default path
SmartPTT Express Server host	C:\Program Files\SmartPTT Express\Server\
SmartPTT Express Server host	C:\Program Files (x86)\SmartPTT Express\Configurator\
Dispatch console hosts	C:\Program Files (x86)\SmartPTT Express\Client\

Table 6: Firewall Ignore List for Network Ports

Default port & protocol	Host	Description
54000 (TCP)	SmartPTT Express Server	Control interface between SmartPTT Express Server and SmartPTT Express Configurator. For details, see <u>Re-Configuring SmartPTT Ex-</u> <u>press Server</u> on page 65.
53000 (TCP)	SmartPTT Express Server	Control interface between SmartPTT Express Server and SmartPTT Express Client applications. For details, see <u>Configuring SmartPTT</u> <u>Express Server Interfaces</u> on page 41.
55000* (UDP)	SmartPTT Express Server	Voice traffic between SmartPTT Express Server and SmartPTT Express Client applications.
7101 (TCP)	SmartPTT Express Server	Control interface between SmartPTT Express Server and DIMETRA Express. For details, see Adding & Editing DIMETRA Express Con- nection on page 46.
49152–49152 (UDP)	SmartPTT Express Server	Real-time voice traffic between SmartPTT Express Server and DIME- TRA Express. For details, see <u>Adding & Editing DIMETRA Express</u> <u>Connection</u> on page 46.

Default port & protocol	Host	Description
61000-61000 (UDP)	SmartPTT Express Server	Voice records reception from DIMETRA Express. For details, see Connecting to DIMETRA Express Voice Logging Service on page 52.
6006* (TCP)	SmartPTT Express Server	Radio user coordinates reception from DIMETRA Express. For de- tails, see <u>Connecting to DIMETRA Express Short Data Service</u> on page 56.
ANY (TCP)	dispatch console	Control interface between SmartPTT Express Server and SmartPTT Express Client.
ANY (UDP)	dispatch console	Voice traffic between SmartPTT Express Server and SmartPTT Express Client.

Ports marked with asterisk (*) must not or cannot be changed.

If antivirus or firewall software is causing problems after performing the steps described in this section, contact SmartPTT Express technical support for assistance. For details, see <u>Technical Support</u> on page 96.

2.9 Map Providers

SmartPTT Express uses the OpenStreetMap (OSM) format of maps to show radio user location. 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.

Important:

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

2.9.1 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. For details, see <u>Technical Support</u> on page 96.

The path to map storage is entered in the following format: atlas://[host]/<path>/{z}/{x}/{y}/.png

For Location Service configuration details, see Configuring Location Service in SmartPTT Express on page 58.

2.9.2 HTTP-based maps

SmartPTT Express can be configured to use an external HTTP/HTTPS server as a source of maps in the Open-StreetMap (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 7.

Table 7: 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.

SmartPTT Express supports the following types of authentication in OSM map servers:

- Public servers that do not require authentication.
- Private servers with HTTP Basic authentication.
- Private servers that require credentials in the URL.

To support SmartPTT Express, map servers must be able to simultaneously authenticate multiple users with the same credentials. SmartPTT Express does not allow to set individual credentials for each dispatch console.

If authentication credentials must be provided in the URL, additional substitutions must be used. They are described in <u>Table 8</u>.

Substitution	Description
{login}	User login.
{password}	User password.

Table 8: Authentication Substitutions in Map Provider URL Addresses

As a result, the URL address of an OSM map provider with authentication may appear as follows: http://{s}.maps.example.com/folder/{z}/{x}/{y}.png? token=50029210&login={login}&pass={password}

For Location Service configuration details, see <u>Configuring Location Service in SmartPTT Express</u> on page 58.

Chapter 3. Software Installation

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

3.1 Installing SmartPTT Express

Follow the procedure to install SmartPTT Express on a computer.

Prerequisites:

- Obtain the required authorization type and SmartPTT Express Server IP address.
- Make the installation file (default name is SmartPTTExpressSetup.exe) available on the SmartPTT Express host using local or network storage.

Procedure:

 Run the installation file from the SmartPTT Express host. Language selection window appears.



Figure 4: Language selection in the Installation Program

 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.

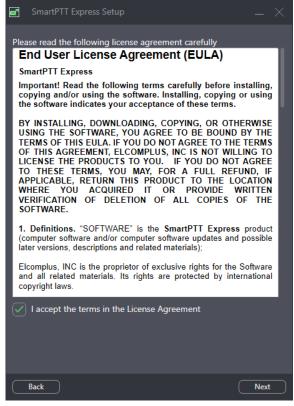


Figure 5: EULA in the Installation Program

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.

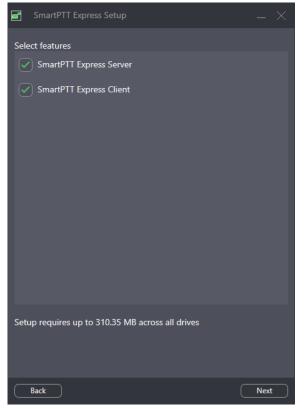


Figure 6: Software Components in the Installation Program

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

To install SmartPTT Express Server,	select 🛛 SmartPTT Express Server. Otherwise, clear it.
To install SmartPTT Express Client,	select 🛛 SmartPTT Express Client. Otherwise, clear it.

5. Click **Next**.

Installation paths appear.

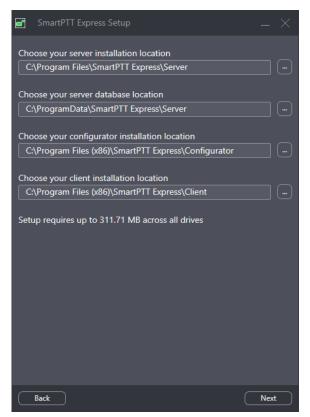


Figure 7: Software Installation Paths

- 6. (Optional) Change the installation path:
 - a. To the right of the text field of a component, click **Browse**
 - b. In the dialog box, select the desired path. Then click **Open**.The new path appears in the text field.

Important:

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

 Repeat the previous step for other components. Then click **Next**. Initial authentication settings appear.

G SmartPTT Express Setup	_ ×
Server Configuration	
System Name SmartPTT Express]
Authorization Type Domain Domain Local Groups	
Domain	
~]
Administrator Group	1
SmartPTT Express Administrators ~	J
Back	Next

Figure 8: Authentication Settings

- 8. (Optional) In the window that appears, in the **System name** field, enter a name for the SmartPTT Express system.
- 9. Select the user authentication method:

To set local authorization,	click 🖲 Local Groups.			
	2. From the Domain list, select the required domain name			
	1. Click 🖲 Domain.			
To set domain authorization,	perform the following actions:			

10. From the **Admin Group** list, select the Windows group that will be granted administrator permissions in SmartPTT Express. Then click **Next**.

Initial SmartPTT Express Configurator or SmartPTT Express Client settings appear.

- 11. 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 Express 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 Express Server host.
 - c. Click **Next**.

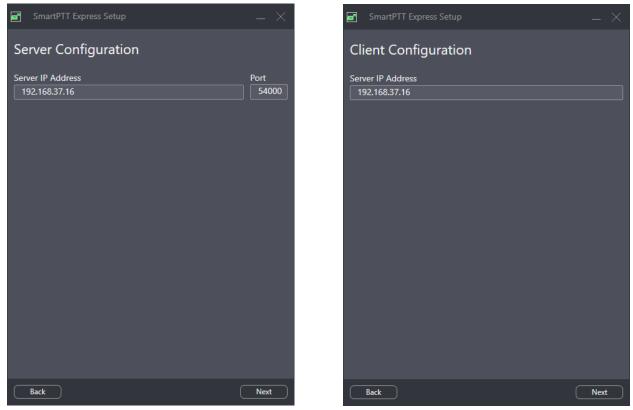


Figure 9: Initial SmartPTT Express Configurator and SmartPTT Express ClientSettings

12. 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,	proceed to the next step.

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

Installation summary appears.

14. In the window that appears, look through the installation summary. Then perform one of the following actions:

If the information is correct,	click Install .
If incorrect data appears,	perform the following actions:
	1. Click Back until the incorrect data fields appear.
	2. Repeat the relevant steps of this instruction to make the nec- essary changes.

- 3. Click **Next** until the installation summary appears again.
- 4. Repeat the current step.

Important:

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

Postrequisites:

Change SmartPTT Express Server Event Log size. For details, see <u>Disk Space Management</u> on page 19.

3.2 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 <u>Installing SmartPTT Express</u> on page 26.

Prerequisites:

- Obtain the IP address of the SmartPTT Express Server host.
- Make the installation file (default name is **SmartPTTExpressSetup.exe**) available on the dispatch console host using local or network storage.

Procedure:

- Run the installation file.
 Language selection window appears (see Figure 4 on page 26).
- 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 (see Figure 5 on page 27).
- 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 (see Figure 6 on page 28).
- 4. In the window that appears, perform the following actions:
 - a. Clear
 Clear
 SmartPTT Express Server.
 - b. Select 🗹 SmartPTT Express Client.
 - c. 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.

6. Click Next.

SmartPTT Express Server IP address input appears (see Figure 9 on page 31).

- In the window that appears, in the Server IP Address field, enter the IP address that is used (or will be used) by SmartPTT Express Server to connect SmartPTT Express Client applications.
 Shortcut creation settings appear.
- 8. In the window that appears, select the check box to add a shortcut on Windows Desktop. Then click **Next**. Installation summary appears.
- 9. In the window that appears, look through the installation summary info. Click **Install**.

Important:

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

3.3 Modification of the Installed Software

If you run the installation file on a computer with installed SmartPTT Express, the application offers the following options:

Modify

The button starts a procedure similar to installation. During the procedure, the user is able to 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 <u>Unin</u>-<u>stalling Software</u> on page 66.

Configure

The button starts the modification of SmartPTT Express Server authentication and SmartPTT Express Server network interface update. For details, see <u>Re-Configuring SmartPTT Express Server</u> on page 65.



Figure 10: Installed Software Modification Options

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.

Important:

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 <u>System Roles &</u>
 <u>Authorization</u> on page 20.
- Obtain the SmartPTT Express Server IP address and TCP port. For details, see <u>Installing SmartPTT Express</u> on page 26.
- Start SmartPTT Express Server. For details, see <u>SmartPTT Express Server Service Control</u> on page 37.

Procedure:

 Start SmartPTT Express Configurator. The main window of SmartPTT Express Configurator appears; the SmartPTT Express Login window appears.

SmartPTT Express Configurator		 		\times
			\$ ¢ [
			 ·•• ·	-
	SmartPTT Express Login			
	User Login			
	administrator 1			
	Password			
	••••••••••			
	Server IP Address 192 . 168 . 37 . 89			
	172.100.37.07			
	Port			
	54000			
	Update Close			
				_
				52

Figure 11: Logging on to SmartPTT Express Configurator

- 2. If the **Disconnected** B^o icon appears in the Status Bar of the SmartPTT Express Configurator main window, perform the following actions:
 - a. In the **SmartPTT Express Login** window, click **Server Connection**.
 - b. In the **Server IP Address** field, type the SmartPTT Express Server IPv4 address in dot-decimal notation that was configured during installation.
 - c. In the **Port** field, type the TCP port number that was configured during installation.
 - d. Click **Update**.

The **Connected** 🗳 icon should appear in the Status Bar.

Notice:

If the **Connected** P icon does not appear, modify the SmartPTT Express installation. For details, see Modification of the Installed Software on page 33.

- 3. In the **User Login** field, type the user login.
- 4. In the **Password** field, type the user password.
- 5. Click Login.

The **SmartPTT Express Login** window disappears; SmartPTT Express settings appear in the main window of the SmartPTT Express Configurator.

If you are logging on to SmartPTT Express Configurator for the first time, perform the first start configuration. For details, see <u>First Start Configuration</u> on page 39.

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.

Configurat	tor Settings	×
Language	English (United States) 🗸	
	ОК	Cancel

Figure 12: SmartPTT Express Configurator Language Selection

- 2. In the window that appears, from the Language list, select the required language. Then click OK.
- 3. To apply changes immediately, reopen SmartPTT Express Configurator.

4.3 SmartPTT Express Server Service Control

SmartPTT Express Server is a regular 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 Express Server and Start SmartPTT Express Server shortcuts in the Start menu.
- Open Windows **Services** app or the **Services** tab of the **Task Manager** application, find **SmartPTT Express 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 Ex press Server" or net stop "SmartPTT Express 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. Also, you can generate Hardware ID using a dedicated utility. For details, visit SmartPTT Technical Support Center.

Prerequisites:

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

Procedure:

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

SmartPTT Express Configurator					- 🗆 ×
System Configuration				= ¢	• 🗱 🔛
Licenses	Licenses				
System Parameters					
Consoles	License ID:				
► Users	Company Name:				
 Radio Systems 	Software Upgrade Support Expirati	ion Date:			
	License	Quantity	Start Date	Expiration Date	
Talkgroups					
▶ Layouts					
Digital Audio Recording					
Location Service					
	Install License S	how Hardware ID			
					Ľ

Figure 13: Accessing Licensing Settings

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

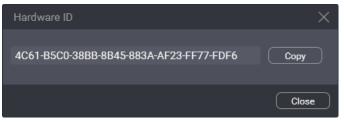


Figure 14: Viewing Hardware ID

- 3. In the window that appears, click **Copy** to copy the Hardware ID code to the clipboard.
- 4. In the window, click **Close**.
- 5. Deliver the Hardware ID code to the Elcomplus LLC representative. If demanded, add another relevant information.

Install the license file after you receive it. For details, see <u>Installing License</u> on page 39.

4.5 First Start Configuration

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

- Install the license file. For details, see <u>Installing License</u> on page 39.
- Select user groups for supervisors, operators, and privileged operators. For details, see <u>Assigning User</u> <u>Groups to System Roles</u> on page 40.
- Determine SmartPTT Express Server addresses and ports. For details, see <u>Configuring SmartPTT Express</u> <u>Server Interfaces</u> on page 41.

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 LLC. Copy it to the SmartPTT Express Server host.
- Log on to SmartPTT Express Configurator.

Procedure:

- In SmartPTT Express Configurator, click the Licenses tab. Licensing information appears on the right pane (see Figure 13 on page 38).
- 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. Ensure that the information is correct.

- Assign user groups to system roles. For details, see Assigning User Groups to System Roles on page 40.
- Configure SmartPTT Express Server interfaces. For details, see <u>Configuring SmartPTT Express Server In-</u> terfaces on page 41.

4.5.2 Assigning User Groups to System Roles

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

Prerequisites:

- Obtain user group names for all system roles.
- 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.

Digital Audio Recording	System Roles
Location Service SCADA	Authorization Type Domain Local Groups
	Domain
	Administrator Group Supervisor Group SmartPTT Express Administrators SmartPTT Express Supervisors
	Operator Group Privileged Operator Group SmartPTT Express Operators SmartPTT Express Privileged Operators

Figure 15: System Roles Configuration in SmartPTT Express Configurator

2. On the right pane, in the **System Roles** area, change the authentication method:

To set domain authorization,	perform the following actions:
	1. Click Omain .
	2. From the Domain list, select the required domain name.
To set local authorization,	click 🖲 Local Groups.

- 3. In the same area, from the corresponding lists, select user groups for the four SmartPTT Express user roles.
- 4. Perform one of the following actions:

If you have completed first-start configuration, figure = 0 on the Toolbar, click **Save configuration** \blacksquare .

If you have not completed first-start configuration,	configure SmartPTT Express Server interfaces. For details, see <u>Configuring SmartPTT Express Server</u> <u>Interfaces</u> on page 41.
If you are not performing first-start configuration,	on the Toolbar, click Save configuration .

4.5.3 Configuring SmartPTT Express Server Interfaces

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

Prerequisites:

- Obtain SmartPTT Express 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.

Figure 16: Interfaces Configuration in SmartPTT Express Configurator

- 2. (Optional) In the top right corner of the **Server Parameters** area, turn on the **Advanced** toggle to display all available settings.
- 3. In the **Main Server** area, in the **IP Address** field, type the SmartPTT Express Server IPv4 address in dotdecimal notation.
- 4. In the **Port** field, enter an unlocked TCP port number. For details, see <u>Table 6: Firewall Ignore List for Net-</u> work Ports on page 22.
- 5. Leave the values in the **Audio IP address**, **First Audio Port** and **Last Audio Port** fields (visible if the **Ad-vanced** toggle is turned on) unchanged.
- 6. Perform one of the following actions:

If you are not performing first-start configuration,	on the Toolbar, click Save configuration .
If you have not completed first-start configuration,	edit system roles. For details, see <u>Assigning User</u> <u>Groups to System Roles</u> on page 40.
If you have completed first-start configuration,	on the Toolbar, click Save configuration .

To apply changes immediately, restart SmartPTT Express Server. For details, see <u>SmartPTT Express Server Service Control</u> on page 37.

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

SmartPTT Express Configurator			
System Configuration			
Licenses	System Parameters		
System Parameters			
► Consoles	Name SmartPTT Express		
▶ Users			
 Radio Systems 	Activity Log Retention Period		
Talkgroups	Prevent dispatch interrupting		

Figure 17: Miscellaneous SmartPTT Express Server Settings

2. On the right pane, in the System Parameters area, perform the following actions:

To play alarm tone in SmartPTT Express Client select **Play alarm tone on emergency calls**. each time an emergency call is received,

To turn off the alarm tone for emergency calls, \Box clear \Box **Play alarm tone on emergency calls**.

- 3. In the Activity Log Retention Period field, enter the retention period (in minutes) for activity log entries.
- 4. Perform the following actions:

To prevent SmartPTT Express Client users from select Prevent dispatch interrupting. interrupting incoming transmissions to start their own,

To allow SmartPTT Express Client users to inter- clear **Prevent dispatch interrupting**. rupt incoming transmissions to start their own,

- 5. (Optional) In the **Name** field, type a name for the SmartPTT Express system.
- 6. On the Toolbar, click **Save configuration** 🗎 .

4.6 Adding & Editing Consoles

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

Prerequisites:

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

Procedure:

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

SmartPTT Express Configurator				_ [$\exists \times$
System Configuration		<u></u>	¢ ⇒	¢-	
Licenses System Parameters Consoles hostname × Add new Users Radio Systems Talkgroups Layouts Digital Audio Recording Location Service SCADA	Console Parameters Host Name hostname Dispatch Position Name Dispatcher	<u> </u>	~		
					Ľ

Figure 18: Console Configuration in SmartPTT Express Configurator

2. Perform one of the following actions:

To add a new console,	click Add new .
To edit an existing console settings,	click the required console.

- 3. On the right pane, in the **Host Name** field, type the computer name of the dispatch console host (case insensitive).
- 4. (Optional) In the **Dispatch Position Name** field, type the console name that will appear in SmartPTT Express Client. If this field is left empty, the host name will be displayed in SmartPTT Express Client instead.
- 5. On the Toolbar, click **Save configuration** 🗎 .

Postrequisites:

- Repeat the procedure to add other consoles.
- To apply changes immediately, restart SmartPTT Express Server. For details, see <u>SmartPTT Express Server</u> <u>Service Control</u> on page 37.

4.7 Adding & 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 20.
- Log on to SmartPTT Express Configurator.

Procedure:

 In SmartPTT Express Configurator, on the left pane, expand the Users tab. The list of users and the Add new button appear under the tab.

SmartPTT Express Configurator		 		— C	$\exists \times$
System Configuration			¢	¢-	
Licenses	User Parameters				
System Parameters					
Consoles	Name User 1				
✓ Users	Allow Private Call				
Search Q					
User 1 X	Talkgroup Access List				
User 2 X	Edit				
User 3 X	tg-1005, tg-1004, tg-1003				
Add new					
 Radio Systems 					
Talkgroups					
▸ Layouts					
Digital Audio Recording					
Location Service					
					5

Figure 19: User Account Configuration in SmartPTT Express Configurator

2. Perform one of the following actions:

To add a new user,	click Add new .
To edit an existing user settings,	click the required user.

- 3. On the right pane, in the **Name** field, enter the corresponding Windows user login.
- 4. If available, configure private call permissions:

To allow private calls reception and initiation to the user,	select 🗹 Allow Private Call.
To deny private calls reception and initiation to the user,	clear 🛛 Allow Private Call.

Important:

The Image Allow Private Call parameter becomes available after SmartPTT Express Server synchronizes with DIMETRA Express.

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

Repeat the procedure to add other users.

4.8 DIMETRA Express Connection

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

- Resolving DIMETRA Express host names to its IP address. For details, see <u>Communication with DIMETRA</u> <u>Express</u> on page 19.
- Configuration of SmartPTT Express Server interfaces. For details, see <u>Adding & Editing DIMETRA Express</u> <u>Connection</u> on page 46.
- Account association. For details, see Configuring Associations between DIMETRA Express and SmartPTT Express User Accounts on page 48.

4.8.1 Adding & Editing DIMETRA Express Connection

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

Prerequisites:

- Add console users in SmartPTT Express Configurator. For details, see Adding & Editing Users on page 44.
- Obtain DIMETRA Express IP address. For details, see DIMETRA Express Configuration on page 17.

Procedure:

- 1. In SmartPTT Express Configurator, on the left pane, expand the **Radio Systems** tab.
- 2. Perform one of the following actions:

To add a radio system,click Add new.To edit connection settings,click a radio system name.

SmartPTT Express Configurator			
System Configuration			
Licenses	Radio System Parameters	Advanced	
System Parameters		Advanced U	
➤ Consoles	Name Radio System-1		
► Users			
	DIMETRA IP Address 192.168.36.138	Local Server IP Address 192.168.37.16	
Radio System-1 $ imes$			

Figure 20: DIMETRA Express Connection Settings in SmartPTT Express Configurator

- 3. In the Radio System Parameters area, enter DIMETRA Express interface parameters:
 - a. (Optional) In the top right corner of the area, turn on the **Advanced** toggle to display all available settings.
 - b. (Optional) In the **Name** field, type the radio system name.
 - c. In the **DIMETRA IP Address** field, type DIMETRA Express IP.
- 4. On the Toolbar, click **Save configuration** 🗎 .

To apply changes immediately, restart SmartPTT Express Server. For details, see <u>SmartPTT Express Server Service Control</u> on page 37.

4.8.2 Configuring Voice Dispatch

Follow the procedure to configure voice dispatch parameters.

Prerequisites:

- Configure DIMETRA Express connection. For details, see <u>Adding & Editing DIMETRA Express Connection</u> on page 46.
- Ensure that the installed license includes **Dispatcher Voice Channel**.
- Obtain DIMETRA Express port number for API-type consoles.

Procedure:

1. In SmartPTT Express Configurator, on the left pane, expand the **Radio Systems** tab and click the radio system name.

Talkgroups	Voice Dispatch Parameters	Advanced	
 Layouts Digital Audio Recording Location Service SCADA 	Enable Voice Dispatch DIMETRA DCS Port 7101		
	DIMETRA Audio IP Address 192.168.36.138 The same as DIMETRA IP Address	DIMETRA Audio Port 58301	
	Local Audio IP Address 192.168.37.16 The same as Local Server IP Address DIMETRA User Credentials	Range For Audio Source Port 49152	
	DIMETRA User Credentials		

Figure 21: Voice Dispatch Parameters in SmartPTT Express Configurator

2. On the right pane, in the **Voice Dispatch Parameters** area, select the **Enable Voice Dispatch** check box.

- 3. (Optional) In the top right corner of the area, turn on the **Advanced** toggle to display all available settings.
- 4. In the **DIMETRA DCS Port** field (visible if the **Advanced** toggle is turned on), type the Corba TCP Port Number.
- 5. Leave the values in the **DIMETRA Audio IP Address**, **DIMETRA Audio Port**, **Local Audio IP Address** and **Range For Audio Source Port** fields (visible if the **Advanced** toggle is turned on) unchanged.
- 6. Synchronize DIMETRA Express and SmartPTT Express user accounts. For details, see <u>Configuring Associa-</u> tions between DIMETRA Express and SmartPTT Express User Accounts on page 48.
- 7. In the **System Description** area at the bottom of the right pane, click the **Sync** button. Connection and synchronization with DIMETRA Express starts; when it is completed, the corresponding dialog box appears.
- 8. On the Toolbar, click **Save configuration** 🗎 .

- Allow private calls to SmartPTT Express users. For details, see <u>Adding & Editing Users</u> on page 44.
- Configure talkgroup availability to SmartPTT Express users. For details, see <u>Managing Talkgroup Access</u> on page 49.
- To apply changes immediately, restart SmartPTT Express Server. For details, see <u>SmartPTT Express Server</u> Service Control on page 37.

4.8.3 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.

Notice:

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 <u>DIMETRA Express Configuration</u> on page 17.
- Ensure that the installed license includes **Dispatcher Voice Channel**.

Procedure:

1. In SmartPTT Express Configurator, on the left pane, expand the **Radio Systems** tab and click the radio system name.

The selected radio system settings appear on the right pane.

2. In SmartPTT Express Configurator, on the right pane, click **DIMETRA User Credentials**. The **DIMETRA User Credentials** window appears.

Username	Password	Dispatchers	
user1	•••••	User 1, User 2	
user2	•••••	User 3	
Click here to add new item			

Figure 22: User Accounts Synchronization in SmartPTT Express Configurator

- 3. In the window that appears, perform account association:
 - a. Perform one of the following actions:

To add a new association,	click the Click here to add new item entry at the bottom of the table.
To edit an existing association,	double-click the desired entry.

- b. In the entry, in the **Username** column, type a DIMETRA Express console user name 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** ⁽²⁾ 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**.
- 4. Repeat the previous step for other accounts.
- 5. In the **DIMETRA User Credentials** window, click **OK**.
- 6. On the Toolbar, click **Save configuration** \blacksquare .

4.8.4 Managing Talkgroup Access

Follow the procedure to manage talkgroup availability to users.

Prerequisites:

- Ensure that the installed license includes **Dispatcher Voice Channel**.
- Synchronize SmartPTT Express Server with DIMETRA Express. For details, see <u>Adding & Editing DIMETRA</u>
 <u>Express Connection</u> on page 46.

Procedure:

- 1. In SmartPTT Express Configurator, on the left pane, expand the **Users** tab and select the required user. User settings appear on the right pane (see Figure 19 on page 45).
- On the right pane, in the Talkgroup Access List area, click Edit.
 The Talkgroup Access List window appears.

Talkgr	roup Access List	×
Searc		٩
	resource_1	
\bigcirc	resource_2	
	resource_3	
	resource_4	
	resource_5	
	Select All	ОК

Figure 23: Talkgroup Access Configuration

- (Optional) In the search field enter a part of the desired talkgroup name.
 Only the talkgroups whose names contain the entered symbols will be shown in the list.
- 4. (Optional) Click Select All to select/clear check boxes to the left of all talkgroups in the list.
- 5. In the window that appears, perform the following actions:

To grant access to the talkgroups,	select check boxes to the left of the talkgroups you would like to grant access to.
To deny access to the talkgroups,	clear check boxes to the left of the talkgroups you would like to deny access to.

Notice:

The System-wide Call feature is present in the list as a talkgroup named *SWC-TG*. Its availability can be configured in the same way as that of any talkgroup.

- 6. In the bottom right corner of the window, click **OK**.
- 7. On the Toolbar, click **Save configuration** 🗎 .

Repeat the procedure to configure access settings for other users.

4.9 Configuring Talkgroup Availability

Follow the procedure to edit talkgroup availability settings.

Prerequisites:

Synchronize with DIMETRA Express. For details, see Adding & Editing DIMETRA Express Connection on page 46.

Procedure:

1. In SmartPTT Express Configurator, on the left pane, click the **Talkgroups** tab.

SmartPTT Express Configurator						$ \Box$ \times
System Configuration					🔤 🏟	🤃 🗎
Licenses	Talkgroups					
System Parameters						
► Consoles	Name		Voice (128/128)	Audio Recording	Users	
 Users 	resource_1	1001			User 1	
 Radio Systems 	resource_2	1002			User 1	
Talkgroups	resource_3	1003			User 1	
▶ Layouts	resource_4	1004			User 1	
Digital Audio Recording	resource_5	1005			User 1	
Location Service	resource_6	1006			User 1	
SCADA	resource_7	1007			User 1	
	resource_8	1008			User 1	
	resource_9	1009			User 1	
	resource 10	1009			User 1	
						Ľ

Figure 24: Talkgroup Availability Configuration

- 2. On the right pane, in the table, for each of the desired talkgroups, perform the following actions:
 - a. In the **Name** and/or **ID** column, view the talkgroup name and/or ID.
 - b. In the **Voice** column (available only if the installed license includes **Dispatcher Voice Channel**), select the check box to make the talkgroup available for voice dispatching in SmartPTT Express.
 - c. In the **Audio Recording** column (available only if the installed license includes **Digital Audio Record-ing**), select the check box to record the group's calls.
 - d. In the **Users** column, click the cell. User list appears.

e. To grant or deny a user access to the talkgroup, click that user's login in the list.

Notice:

The System-wide Call feature is present in the list as a talkgroup named *SWC-TG*. Its availability can be configured in the same way as that of any talkgroup.

- 3. Repeat the previous step for other required talkgroups.
- 4. On the Toolbar, click **Save configuration** \blacksquare .

4.10 Voice Logging Configuration

Voice logging configuration in SmartPTT Express includes the following mandatory actions:

- Configuration of an additional DIMETRA Express connection. For details, see <u>Connecting to DIMETRA Express Voice Logging Service</u> on page 52.
- Record storage configuration. For details, see Configuring Voice Record Storage on page 54.

4.10.1 Connecting to DIMETRA Express Voice Logging Service

Follow the procedure to connect to DIMETRA Express Voice Logger.

Prerequisites:

- Obtain the following parameters from DIMETRA Express:
 - DIMETRA Express Server IP and TCP port for external voice loggers.
 - External voice logger credentials.

For details, see DIMETRA Express Configuration on page 17.

Determine radio users whose voice transmissions must be stored in the SmartPTT Express database.

Procedure:

 In SmartPTT Express Configurator, on the left pane, expand the **Radio Systems** tab, and then select the radio system.
 Radio system settings appear on the right pape.

Radio system settings appear on the right pane.

2. On the right pane, in the **Digital Audio Recording Parameters** area, select **☑ Enable Audio Recording**. Audio recording settings appear.

SmartPTT Express Configurator				$-\Box \times$
System Configuration			-	¢ 🗎
Licenses	Digital Audio Recording Paramet	ers	Advanced	
System Parameters	Enable Audio Recording			
► Users	DIMETRA AIS IP Address 192.168.36.138	DIMETRA AIS Port 7101		
 Radio Systems 				
Radio System-1 $ imes$	Local IP Address 192.168.37.17			
Talkgroups	Local Audio IP Address	First Audio Port	Last Audio Port	
▶ Layouts	192.168.37.17	61000	61000	
Digital Audio Recording	The same as Local IP Address			
Location Service	Username For AIS	Password		
SCADA	logger			
	Radio IDs			

Figure 25: Voice Logging Configuration

- 3. (Optional) In the top right corner of the **Digital Audio Recording Parameters** area, turn on the **Ad-vanced** toggle to display all available settings.
- In the Local IP Address field, enter the IP address configured as the external voice logger in DIMETRA Express.
- 5. In the **Username For AIS** field, type the external voice logger login.
- 6. In the **Password** field, type the external voice logger password.
- 7. In the **DIMETRA Express AIS IP Address** field (visible if the **Advanced** toggle is turned on), type the IP address of the DIMETRA Express system.
- 8. In the **DIMETRA AIS Port** field (visible if the **Advanced** toggle is turned on), enter the Corba TCP Port number.
- 9. 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.
- 10. In the **System Description** area at the bottom of the right pane, click the **Sync** button. Connection and synchronization with DIMETRA Express starts; when it is completed, the corresponding dialog box appears.
- 11. Configure DIMETRA Express users whose voice transmissions will be stored in SmartPTT Express voice record database:
 - a. Click **Radio IDs**. The **Radio IDs** window appears.

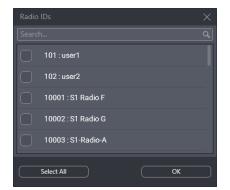


Figure 26: User Selection for Voice Logging

- b. (Optional) In the search field, type a part of a radio ID or alias.Only the radio users whose ID or alias contain the entered symbols will be shown in the list.
- c. (Optional) Click **Select All** to select/clear check boxes to the left of all radio users in the list.
- d. Select users whose transmissions will be stored in the Audio Archive.

Important:

DIMETRA Express will not provide a voice transmission for recording if its voice logging capacity is insufficient. For details, see <u>DIMETRA Express Configuration</u> on page 17.

Important:

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

- e. Click **OK** to apply changes and close the window.
- 12. On the Toolbar, click **Save configuration** 🗎 .

4.10.2 Configuring Voice Record Storage

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

Prerequisites:

Determine storage size, retention period and overflow policy. For details, see <u>Disk Space Management</u> on page 19.

Procedure:

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

SmartPTT Express Configurator			_	$\square \times$
System Configuration		¢	¢-	
Licenses System Parameters • Consoles • Users • Radio Systems	Digital Audio Recording Parameters Retention Period (Months) 1 Overflow Policy Replace Oldest			
Talkgroups → Layouts Digital Audio Recording	Audio Archive Size Depends on free disk space Fixed size (MB)			
Location Service SCADA				
				2

Figure 27: Audio Recording Configuration

2. On the right pane, in the **Retention Period** field, enter the time period after which voice records will be deleted from the Audio Archive.

Notice:

If SmartPTT Express Server is not restarted, changes will be applied on the next calendar day.

3. From the **Overflow Policy** list, select the desired behavior in case the Audio Archive exceeds its size limit:

To stop adding new voice records and keep older records until their select **Discard New**. retention period expires,

To start deleting older records in order to add new records to the selects **Replace Oldest**. archive,

4. Configure the size of the audio archive:

To limit the audio archive size by the amount of free disc space (the	click Output Depends on free disk
archive will grow as long as more than 20% of the disk space re-	space.
mains free),	

To set a fixed limit on the Audio Archive size,

perform the following actions:

- 1. Click Fixed size.
- 2. In the **Fixed size** field, enter the audio archive maximum size in megabytes.

Notice:

SmartPTT Express Server checks disk space every 30 minutes and stops the database size from growing if it exceeds the specified limit.

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

Postrequisites:

To apply changes immediately, restart SmartPTT Express Server. For details, see <u>SmartPTT Express Server Service Control</u> on page 37.

4.11 Location Service Configuration

Location services configuration in SmartPTT Express includes the following actions:

- Map provider selection and configuration. For details, see Map Providers on page 23.
- Connection to DIMETRA Express Short Data Service. For details, see <u>Connecting to DIMETRA Express Short</u> Data Service on page 56.
- Connection to the map provider and location data base configuration. For details, see <u>Configuring Loca-</u> tion Service in <u>SmartPTT Express</u> on page 58.

4.11.1 Connecting to DIMETRA Express Short Data Service

Follow the procedure to configure the connection to the Short Data Service in DIMETRA Express. This service is responsible for providing radio user coordinates.

Prerequisites:

- Ensure that you have unlocked location services in SmartPTT Express. For details, see <u>Installing License</u> on page 39.
- From DIMETRA Express, obtain the following parameters:
 - DIMETRA Express IP address (sometimes called Link 1 Address)
 - SDTS Port Number
 - Short Data Host ID and passnumber. For details, see <u>DIMETRA Express Configuration</u> on page 17.

Procedure:

- 1. In SmartPTT Express Configurator, expand the **Radio Systems** tab, and then click the radio system name.
- On the right pane, in the Outdoor Positioning Parameters area, select the Enable Outdoor Positioning check box.
 Short Data Transport Service connection settings appear in the area.

Short Data Transport Service connection settings appear in the area.

SmartPTT Express Configurator		_ □ ×
System Configuration	🚎 🏟	¢ 🗎
Licenses	Outdoor Positioning Parameters Advanced	
System Parameters Consoles 	C Enable Outdoor Positioning	
➤ Users	SSI Pass Number Radio IDs SDR IP Address SDR Port Local IP Address Local Port	
 Radio Systems 	1 1 Assign 192.168.36.138 6006 192.168.37.16 52000 ×	
Radio System-1 $ imes$	Click here to add new item	
Talkgroups		
▶ Layouts		
Digital Audio Recording Location Service		

Figure 28: Short Data Service Connection

- 3. (Optional) In the top right corner of the area, turn on the **Advanced** toggle to display all available settings.
- 4. If appears, in the table, click **Click here to add new item**.
- 5. In the entry, in the **SSI** column, enter a Short Data Host ID configured in DIMETRA Express.
- 6. In the **Pass Number** column, enter the passnumber of the corresponding Short Data Host configured in DIMETRA Express.
- 7. In the **Radio IDs** column, perform the following actions:
 - a. Click **Assign**. The **Radio IDs** window appears.
 - b. In the window that appears, select radio users that must be tracked in SmartPTT Express.
 - c. Click **OK** to accept changes and close the window.
- 8. Leave the values in the **SDR IP Address** and **SDR Port** columns (visible if the **Advanced** toggle is turned on) unchanged.
- 9. In the **Local IP Address** column (visible if the **Advanced** toggle is turned on), enter the SmartPTT Express Server IP address.
- 10. In the **Local Port** column (visible if the **Advanced** toggle is turned on), enter the SmartPTT Express Server port used to receive radio user location updates.
- 11. In the rightmost column, click **OK**.
- 12. On the Toolbar, click **Save Configuration** 💾 .

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 (SSI).

4.11.2 Configuring Location Service in SmartPTT Express

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

Prerequisites:

- Determine the retention period for radio user coordinates.
- Determine map provider parameters. For details, see Map Providers on page 23.

Procedure:

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

SmartPTT Express Configurator					
System Configuration			¢	¢ -	
Licenses System Parameters	Location Service Parameters				
 ▶ Consoles ▶ Users 	Retention Period (Months)				
 Radio Systems Talkgroups 	Map Parameters				
 Layouts Digital Audio Recording 	Type Open Street Map				
Location Service	URL http://{s}.tile.server.name/{z}/{x}/{y}.png				
SCADA	Login username	Password			
					Ľ

Figure 29: Location Service Configuration

2. On the right pane, in the **Retention period** field, enter the retention period (in months) for radio user coordinates.

Notice:

SmartPTT Express defines "month" as 30 days.

3. In the Map Parameters area, choose map type:

To load the map from an HTTP-server,	from the Type list, select OpenStreetMap .
To load the map from locally stored files,	from the Type list, select Local Map Atlas .

4. Configure map provider access:

If loading the map from locally stored files,	in the URL field, type the path to map storage.		
If loading the map from an HTTP server that does	perform the following actions:		
not require authentication,	1. In the URL field, type the URL address.		
	2. Leave the Login and Password field empty.		
If loading the map from an HTTP server that re-	perform the following actions:		
quires basic HTTP authentication,	1. In the URL field, type the URL address.		
	2. In the Login field, type the required user lo- gin.		
	3. In the Password field, type the required user password.		
	 (Optional) In the Password field, press and hold Show Password ^(*) to show password characters. 		
If loading the map from an HTTP server that re-	perform the following actions:		
quires user credentials included in the URL address,	1. In the URL field, type the URL address tem- plate.		
	 In the typed address, in place of the login, type {login} 		
	In the same address, in place of the pass- word, type {password}		
	4. In the Login field, type the user login.		
	5. In the Password field, type the user pass- word.		
	 (Optional) In the Password field, press and hold Show Password ⁽²⁾ to show password characters. 		

5. On the Toolbar, click Save configuration \blacksquare .

4.12 Integration with SmartPTT Express SCADA

SmartPTT Express can be integrated with SmartPTT Express SCADA — software for remote monitoring and control of industrial equipment over radio waves. After access has been configured in SmartPTT Express Configurator, the SCADA panel can be displayed in SmartPTT Express Client applications.

4.12.1 Configuring SmartPTT Express SCADA Connection

Follow the procedure to configure SmartPTT Express SCADA connection.

Prerequisites:

- Install and configure SmartPTT Express SCADA. For details, see *SmartPTT Express SCADA Installa tion and Start Guide* .
- Ensure that the installed license includes the SCADA feature.
- Obtain SmartPTT Express SCADA URL.

Procedure:

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

0					
S	ystem Configuration		¢	¢ ⊢	
	Licenses System Parameters	SCADA Parameters			
•	Consoles Users	URL http://127.0.0.1:5000			
•	Radio Systems				
٠	Talkgroups Layouts				
	Digital Audio Recording Location Service				
	SCADA				
					2

Figure 30: SCADA Parameters

- 2. On the right pane, in the **URL** field, type SmartPTT Express SCADA URL address.
- 3. On the Toolbar, click **Save configuration**

4.13 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 SmartPTT Express Configurator.

Procedure:

- 1. In SmartPTT Express 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.

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 Express Client users that have access to a layout.

Notice:

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

Prerequisites:

- Create and configure layouts using SmartPTT Express Client. For details, see Chapter 2 "Layout Configuration" in *SmartPTT Express User Guide*.
- Reopen SmartPTT Express Configurator to view the updated list of layouts.

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.

🖉 Sn	martPTT Express Configurator				
Syste	em Configuration		÷	= ¢ ¢ 🗎	
Li	icenses	Layout Parameters			
Sy	ystem Parameters			Users	×
► Co	onsoles	Name Layout1		Search	م
► Us	sers			User 1	
► Ra	adio Systems	Owner User 1		User 2	
Та	alkgroups	Edit		User 3	
▪ La	ayouts	User 1, User 2, User 3			
	Search Q				
	Layout1				
	Layout2			Select All	ОК
	Layout3				
Di	igital Audio Recording				
Lo	ocation Service				
				臣	2

Figure 31: Layout Settings Modification

- On the right pane, click Edit. The Users window appears (see Figure 31).
- (Optional) In the search field enter a part of the desired user name.
 Only the users whose names contain the entered symbols will be shown in the list.
- 4. (Optional) Click **Select 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 correspond- ing names.
To make the layout unavailable to SmartPTT Express	clear check boxes to the left of the corresponding
Client users,	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 supervisor who created the layout.

Notice:

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

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

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 61.

Procedure:

1. Start the installation file.

The SmartPTT Express Setup window appears.

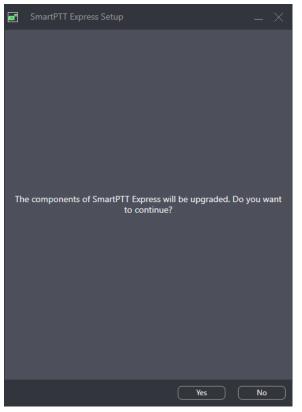


Figure 32: Installed Software Upgrade

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

- Repeat the procedure on each SmartPTT Express host.
- (Optional) Import previously saved configuration. For details, see <u>Importing Configuration</u> on page 64.

5.3 Importing Configuration

Follow the procedure to import/restore SmartPTT Express configuration.

Prerequisites:

- Ensure that you have a valid configuration (.bkp) file.
- Log on to SmartPTT Express Configurator.

Procedure:

In SmartPTT Express 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** \blacksquare .

To apply changes immediately, restart SmartPTT Express Server. For details, see <u>SmartPTT Express Server Service Control</u> on page 37.

5.4 Re-Configuring SmartPTT Express 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 Express Server host.
- Determine the new authorization type, SmartPTT Express Server IP address and TCP port.

Procedure:

- Start the installation file.
 The SmartPTT Express Setup window appears.
- In the window that appears, click Configure.
 The Server Configuration window appears (see Figure 10 on page 34).
- 3. In the window that appears, in the **Authorization Type** area, perform one of the following actions:

To set domain authorization,	perform the following actions:	
	1. Click 🖲 Domain.	
	2. From the Domain list, select the desired domain name.	
To set local authorization,	click	

- 4. (Optional) In the **System Name** field, enter a name for the SmartPTT Express system. Then click **Next**. SmartPTT Express Server connection parameters appear (see Figure 9 on page 31).
- 5. In the window that appears, perform the following actions:
 - a. In the Server IP Address field, enter the SmartPTT Express 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, view changes. Then click **Configure**. Re-configuration starts.

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

5.5 Uninstalling Software

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

Prerequisites:

Create a configuration backup. For details, see Exporting Configuration on page 61.

Procedure:

 On the computer with SmartPTT Express, start the installation file. The SmartPTT Express Setup window appears.



Figure 33: Installed Software Modification

2. (Optional) From the drop-down list, select the language that will be used during uninstallation.

3. Click **Uninstall**.

Uninstallation options appear.



Figure 34: SmartPTT Express uninstallation confirmation

4. Perform one of the following actions:

To delete program data that includes console settings, layouts, select **Remove program data**. tones, audio archive, and all other user settings and data,

To keep program data on the computer,

clear **D** Remove program data.

- 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 Express Server may become unable to connect to DIMETRA Express if you re-configure DIMETRA Express with SmartPTT Express Server configured and operable. In particular, this occurs when you use both dispatch and voice logging features.

To resolve the issue, restart SmartPTT Express 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 Express Server with it. In such case, 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 Express 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 Express Server with it, SmartPTT Express Client may become unable to receive and/or initiate voice calls.

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

6.4 Voice Calls Unavailability with Windows Firewall Turned Off

If the Windows Firewall is turned off on the computer and not other firewall software is used, voice call reception and initiation may be unavailable for dispatchers. It occurs because network ports used by SmartPTT Express are not added to the firewall ignore list/"white 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 <u>Antivirus & Firewall Configuration</u> on page 22.

6.5 Delays in Audio Archive Settings Application

When audio archive settings are modified and changes are saved, new settings are not applied immediately. The following rules apply to them:

- Database size is checked and adjusted every 30 minutes.
- New retention period is applied at midnight.

To apply changes immediately, restart SmartPTT Express Server. If no changes occur within the abovementioned time, and SmartPTT Express Server restart does not apply them, contact SmartPTT technical support. For details, see <u>Error: Reference source not found</u> on page Error: Reference source not found.

6.6 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 Express Server. For details, see <u>SmartPTT Express Server Service Con</u>trol on page 37. To avoid such issues in the future, complete DIMETRA Express configuration before configuring SmartPTT Express.

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

6.8 Dispatcher Voice Transmissions are not Captured

When using Holmco D-9 (Holmberg GmbH & Co. KG D9 USB TSS V1.00) desktop microphone, dispatcher voice is not captured, unless the microphone PTT button is pressed.

To resolve this problem, fix the microphone PTT button in pressed position and do not bind it to the General Transmit action. Alternatively, always press the microphone PTT button when speaking.

Appendix A. SmartPTT Express Configurator User Interface

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 Express Server and authenticate administrators.

SmartPTT Express Lo	gin	
User Login		
administrator 1		
Password		
••••••		⊘
SERVER CONNECTION	Login	Exit

SmartPTT Express Login
User Login
administrator 1
Password
••••••••
Server IP Address
192.168.37.89
Port
54000
Update Close

Figure 35: Authorization Window: Collapsed (left) and Expanded (right)

In the window, the following fields are available:

User Login

Login of a SmartPTT Express user that has administrator permissions. For details, see <u>System Roles & Au-</u><u>thorization</u> on page 20.

Password

Password of the SmartPTT Express user. For details, see System Roles & Authorization on page 20.

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 Express Server. Also, replaces the **Login** and **Exit** buttons with **Update** and **Close**.

The following server connection settings are available:

Server IP Address

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

Port

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

At the bottom of the field, the following buttons appear:

Login

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

Exit

Closes the authorization window and the SmartPTT Express Configurator application.

Update

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



Figure 36: SmartPTT Express Configurator Toolbar

On the Toolbar, the following buttons are available:

Configurator Settings 🚟

Opens the **Configurator Settings** window. For details, see <u>Configurator Settings Window</u> on page 72.

Backup Configuration 🄄

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 Express Server restart. For details, see <u>SmartPTT Express Server Service Control</u> on page 37. If the changes are invalid, the **Invalid Configuration Data** window appears. For details, see <u>Invalid Configuration Data</u> window appears. For details, see <u>Invalid Configuration Data</u> Window on page 72.

A.2.1 Configurator Settings Window

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

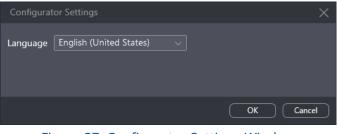


Figure 37: Configurator Settings Window

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.

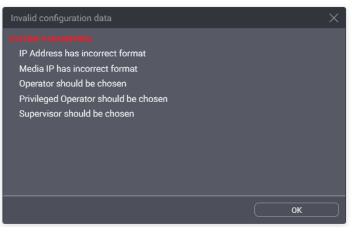


Figure 38: Invalid Configuration Data Window (Example)

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.

SmartPTT Express Configurator							
System Configuration				===	¢	¢-	
Licenses	Licenses						
System Parameters							
▶ Consoles	License ID:						
▶ Users	Company Name:						
 Radio Systems 	Software Upgrade Support Expirat	ion Date:					
Talkgroups	License	Quantity	Start Date	Expiration D	ate		
↓ Layouts							
Digital Audio Recording							
Location Service							
	Install License S	how Hardware ID					
							Ľ

Figure 39: Licenses Tab

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.

Important:

SmartPTT Express does not block installation of software upgrades that will be incompatible with the li-

cense. 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 LLC 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 .spttlx.

Show Hardware ID

Opens the Hardware ID window. For details, see Hardware ID Window on page 74.

A.3.1 Hardware ID Window

In the window, the Hardware ID value appears.

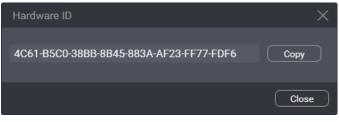


Figure 40: Hardware ID Window

In the window, the following buttons are available:

Hardware ID Field

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

Notice:

Do not confuse Hardware ID with License ID.

Сору

Copies the Hardware ID value (with delimiters) to the clipboard. The copied ID needs to be sent to Elcomplus LLC 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 on page 75.
- System Roles. For details, see System Roles on page 76.
- Server Parameters. For details, see <u>Server Parameters</u> on page 77.

A.4.1 System Parameters

The area provides miscellaneous SmartPTT Express settings.

Figure 41: General System Parameters

응 SmartPTT Express Configurator							
System Configuration	System Configuration						
Licenses	System Parameters						
System Parameters							
Consoles	Name SmartPTT Express						
▶ Users							
▶ Radio Systems	Play alarm tone on emergency calls	Activity Log Retention Period					
Talkgroups	Prevent dispatch interrupting						
▶ Layouts							

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 period 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.

Digital Audio Recording	System Roles
Location Service SCADA	Authorization Type
	Domain V
	Administrator Group Supervisor Group SmartPTT Express Administrators V SmartPTT Express Supervisors V
	Operator Group Privileged Operator Group SmartPTT Express Operators SmartPTT Express Privileged Operators

Figure 42: User Roles in System Parameters

In the area, the following settings are available:

Obmain

Sets domain authorization in SmartPTT Express.

Local Groups

Sets "local" authorization in SmartPTT Express, based on user accounts and groups created on the SmartPTT Express Server host.

Domain

The list of domains discovered on the Customer Enterprise Network. Available and required only if the **Domain** option is selected.

Administrator

The user group whose members are granted administrator permissions in SmartPTT Express. Only one group can be selected. For details, see <u>System Roles & Authorization</u> on page 20.

Notice:

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

Supervisor

The user group whose members are granted supervisor permissions in SmartPTT Express. For details, see <u>System Roles & Authorization</u> on page 20.

Operator

The user group whose members are granted regular operator permissions in SmartPTT Express. For details, see <u>System Roles & Authorization</u> on page 20.

Privileged Operator

The user group whose members are granted privileged operator permissions in SmartPTT Express. For details, see <u>System Roles & Authorization</u> on page 20.

A.4.3 Server Parameters

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

Main Server IP Address Port 192.168.37.16 53000 Audio IP Address First Audio Port 192.168.37.16 55000 V The same as IP Address	Main Server
192.168.37.16 53000 Audio IP Address First Audio Port Last Audio Port 192.168.37.16 55000 55000 5	
192.168.37.16 55000	
	192.168.37.16 55000 \$

Figure 43: SmartPTT Express Server Interface 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 **IP Address** and **Port** fields are displayed.

IP Address

The IPv4 address of the SmartPTT Express Server host in dot-decimal notation. The address is a part of SmartPTT Express 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 Express Server.

Port

A free TCP port number of the SmartPTT Express Server host. The port is a part of the SmartPTT Express 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 Express Server host in dot-decimal notation. The address is a part of the SmartPTT Express Server voice interface that is used to exchange voice traffic between SmartPTT Express 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 Express 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** \times button. Clicking it deletes the console.

00	SmartPTT Express Configurator				— C	$\square \times$
S	ystem Configuration		<u></u>	¢	¢-	
	Licenses System Parameters	Console Parameters				
	Consoles	Host Name hostname				
	hostname X	Dispatch Position Name Dispatcher				
	Users Radio Systems					
	Talkgroups					
	Layouts					
	Digital Audio Recording					
	Location Service					
	SCADA					
						E

Figure 44: List of Consoles and Console Settings

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.

SmartPTT Express Configurator User Interface

SmartPTT Express Configurator				— C	$\exists \times$
System Configuration		<u></u>	¢	¢-	
Licenses	User Parameters				
System Parameters					
Consoles	Name User 1				
 ✓ Users Search 					
User 1 ×	Talkgroup Access List				
User 2 X	Edit				
User 3 X	tg-1005, tg-1004, tg-1003				
Add new					
Radio Systems					
Talkgroups					
Layouts					
Digital Audio Recording					
Location Service					
					2

Figure 45: User Settings

On the right pane, the following settings are available:

Name

User name that must be exactly the same as the corresponding Windows user login.

Notice:

If administrators need to be authorized in SmartPTT Express Client, their logins must be added to the list of users as well as those of other system roles.

☑ Allow Private Call

If this check box is selected, the user will be able to use the private call feature in SmartPTT Express Client. If it is cleared, private calls will be unavailable to the user and the corresponding layout controls will be blocked/disabled.

Notice:

The check box does not affect users with administrator permissions.

Edit

This button appears in the **Talkgroup Access List** area. It opens the **Talkgroup Access Assignment** window. For details, see <u>Talkgroup Access List Window</u> on page 79.

A.6.1 Talkgroup Access List Window

The window provides the list of talkgroups received from DIMETRA Express after SmartPTT Express Server is synchronized with it. For details, see <u>Talkgroups</u> on page 89. By selecting and/or clearing check boxes, the user controls talkgroup availability.

Talkgr	Talkgroup Access List		
Searc		٩	
	resource_1		
\bigcirc	resource_2		
	resource_3		
	resource_4		
	resource_5		
\square	Select All	ОК	

Figure 46: Talkgroup Access List Window

In the window, the following elements are available:

Search...

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

☑ {Talkgroup Name}

Selecting the check box to the left of a talkgroup name makes the talkgroup available to the user being edited. Clearing the check box makes the talkgroup unavailable to the same user. If the user is working in SmartPTT Express Client, the talkgroup disappears from the layout.

Select All

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

ОК

Accepts changes and closes the window.

A.7 Radio 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.7.1 Radio System Parameters

This area provides DIMETRA Express access settings.

B SmartPTT Express Configurator							
System Configuration	System Configuration						
Licenses	Radio System Parameters	Advanced					
System Parameters							
► Consoles	Name Radio System-1						
▶ Users							
+ Radio Systems		.ocal Server IP Address 192.168.37.16					
Radio System-1 $ imes$							

Figure 47: DIMETRA Express System Parameters

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

DIMETRA Express Server IP address, exactly as it is provided in DIMETRA Express configuration. For details, see <u>DIMETRA Express Configuration</u> on page 17.

Local Server IP Address

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

A.7.2 Voice Dispatch Parameters

This area provides voice dispatch settings.

Talkgroups	Voice Dispatch Parameters	Advanced
 Layouts Digital Audio Recording 	C Enable Voice Dispatch	
Location Service SCADA	DIMETRA DCS Port	
	DIMETRA Audio IP Address 192.168.36.138 The same as DIMETRA IP Address	DIMETRA Audio Port
	Local Audio IP Address 192.168.37.16 The same as Local Server IP Address	Range For Audio Source Port 49152 - 49152
	DIMETRA User Credentials	

Figure 48: Voice Dispatch Parameters Area

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.

DIMETRA DCS Port

Corba TCP Port Number, exactly as it is provided in DIMETRA Express.

DIMETRA Audio IP Address

Link 1 IP Address, exactly as it is provided in DIMETRA Express. For details, see <u>DIMETRA Express Configura</u>tion on page 17.

The same as DIMETRA IP Address

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

DIMETRA Audio Port

The user must leave the value in the field unchanged. Default port number is 58301.

Local Audio IP Address

SmartPTT Express Server IP address used for voice traffic between SmartPTT Express 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 Express 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**.

DIMETRA User Credentials

Opens the **DIMETRA User Credentials** window. For details, see <u>DIMETRA User Credentials Window</u> on page 82.

A.7.3 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.

C	IMETRA User Credentials			\times
	Username	Password	Dispatchers	
	user1	•••••	User 1, User 2	×
	user2	•••••	User 3	×
	Click here to add new item			
			OK Cancel	

Figure 49: DIMETRA User Credentials Window

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

Username

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

Notice:

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 <u>Users</u> on page 78.

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.

ОК

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

Remove \times

Removes the corresponding entry from the table. If the user double clicks an entry, all **Remove** buttons are substituted 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:

ОΚ

Accepts all changes and closes the window.

Cancel

Cancels all changes and closes the window. It helps to restore accidentally removed entries.

A.7.4 Digital Audio Recording Parameters

The area provides DIMETRA Express Voice Logger network interface settings.

00	SmartPTT Express Configurator					$\square \times$
Sy	stem Configuration			= 🔄	¢	
	Licenses	Digital Audio Recording Paramete	ers	Advanced		
	System Parameters	✓ Enable Audio Recording				
•	Consoles					
۲	Users	DIMETRA AIS IP Address 192.168.36.138	DIMETRA AIS Port 7101			
•	Radio Systems					
	Radio System-1 $ imes$	Local IP Address 192.168.37.17				
	Talkgroups					
۲	Layouts	Local Audio IP Address 192.168.37.17	First Audio Port 61000	Last Audio Port 61000		
	Digital Audio Recording	The same as Local IP Address				
	Location Service	Username For AIS	Password			
	SCADA	logger	•••			
		Radio IDs				

Figure 50: Digital Audio Recording Parameters Area

In the area, the following settings are available:

☑ Enable Audio Recording

This check box determines if the SmartPTT Express 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 Express 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.

DIMETRA AIS IP Address

DIMETRA Express Server IP Address.

DIMETRA AIS Port

The control port between SmartPTT Express Server and DIMETRA Express Voice Logger. It must be the same as the Corba TCP port. Default port number is **7101**.

Local IP Address

The SmartPTT Express 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 <u>Radio</u> <u>System Parameters</u> on page 80.

Local Audio IP Address

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

Last Audio Port

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

Username For AIS

External voice logger Login Name, exactly as it is set in DIMETRA Express. For details, see <u>DIMETRA Express</u> <u>Configuration</u> on page 17.

Password

External voice logger password, exactly as it is set in DIMETRA Express. For details, see <u>DIMETRA Express</u> <u>Configuration</u> on page 17. 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 on page 86.

A.7.5 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.

Important:

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

Notice:

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.



Figure 51: Radio IDs Window

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).

Notice:

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

Select All

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

ОК

Accepts changes and closes the window.

A.7.6 Outdoor Positioning Parameters

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

SmartPTT Express Configurator		$-\Box$ \times
System Configuration	🚎 🔄	¢ 🗎
Licenses	Outdoor Positioning Parameters Advanced	
System Parameters Consoles 	Enable Outdoor Positioning	
▶ Users	SSI Pass Number Radio IDs SDR IP Address SDR Port Local IP Address Local Port	
 Radio Systems 	1 1 Assign 192.168.36.138 6006 192.168.37.16 52000 ×	
Radio System-1 $ imes$	Click here to add new item	
Talkgroups		
▶ Layouts		
Digital Audio Recording		1
Location Service		

Figure 52: Outdoor Positioning Parameters

In the area, the following elements are available:

Enable Short Data Transport

If the check box is selected, the Short Data Host table appears with all the parameters required to identify SmartPTT Express 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

Unique SmartPTT Express Server identifier. The parameter must be exactly the same as the Host ID param-

eter in DIMETRA Express settings. For details, see "Short Data Transport" in *DIMETRA Express Online Help*.

Pass Number

A unique code that is used for SmartPTT Express Server authentication by DIMETRA Express as a Short Data Host. The number must be exactly the same as the **Host Passnumber** parameter in DIMETRA Express settings. For details, see "Short Data Transport" in *DIMETRA Express Online Help*.

Important:

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 <u>Radio IDs Window</u> on page 86.

SDR IP Address

The IP address of DIMETRA Express. This must be the same IP address as the one used in the **Radio System Parameters** area. For details, see <u>Radio System Parameters</u> on page 80.

SDR Port

The number of the port used by DIMETRA Express for receiving location requests and providing location updates to SmartPTT Express. The number must be exactly the same as the SDTS port number in DIMETRA Express configuration (6006). For details, see "Short Data Transport" in *DIMETRA Express Online Help*.

Local IP Address

The IP address of SmartPTT Express 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 <u>Radio System Parameters</u> on page 80.

Local Port

The number of the port used by SmartPTT Express Server for sending location requests to DIMETRA Express and receiving location updates from it. Possible values range from **1** to **65535**; the default is **52000**.

A.7.7 System Description

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

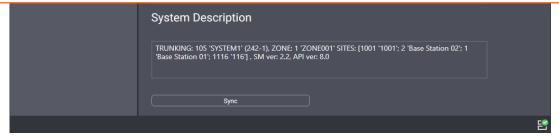


Figure 53: DIMETRA Express System Description

At the bottom of the right pane, the **Sync** button is available. When the user clicks it, SmartPTT Express Server starts connecting to DIMETRA Express and authenticating in it to receive talkgroups, system description, and perform other necessary actions.

A.8 Talkgroups

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

SmartPTT Express Configurator					= ¢	- 🗆 ×
System Configuration	System Configuration					
Licenses	Talkgroups					
System Parameters	langroups					
➤ Consoles	Name		Voice (128/128)	Audio Recording	Users	
➤ Users	resource_1	1001			User 1	
 Radio Systems 	resource_2	1002			User 1	
Talkgroups	resource_3	1003			User 1	
➤ Layouts	resource_4	1004			User 1	
Digital Audio Recording	resource_5	1005			User 1	
Location Service	resource_6	1006			User 1	
SCADA	resource_7	1007			User 1	
	resource_8	1008			User 1	
	resource_9	1009			User 1	
	resource 10	1009			User 1	
						Ľ

Figure 54: Talkgroup Parameters

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, the talkgroup is available to add in SmartPTT Express Client. If the maximum number of talkgroups has been reached, selecting the check box becomes impossible.

If the check box is cleared, the talkgroup becomes unavailable in SmartPTT Express and is hidden in all layouts.

The counter in the column header shows the number of talkgroups available in SmartPTT Express and the maximum number of talkgroups determined by the license. For details, see <u>Licenses</u> on page 73.

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.

Important:

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

Users

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

A.9 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.

Notice:

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

SmartPTT Express Configurator				— C	$\square \times$
System Configuration			¢	¢-	
Licenses System Parameters	Layout Parameters				
Consoles	Name Layout1				
▶ Users					
 Radio Systems 	Owner User 1				
Talkgroups					
	Ledit User 1, User 2, User 3				
Search Q					
Layout1					
Layout2					
Layout3					
Digital Audio Recording					
Location Service					
					2

Figure 55: List of Layouts and Their Settings

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 **Dispatchers** window. For details, see <u>Users Window</u> on page 91.

A.9.1 Users Window

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

Users		×
Search		٩
\bigcirc	User 1	
	User 2	
	User 3	
	Select All	ОК

Figure 56: List of SmartPTT Express Client Users

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 <u>Layouts</u> on page 90.

Select All

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

ОК

Accepts changes and closes the window.

A.10 Digital Audio Recording

The tab provides limited settings for the voice record database. All other parameters are determined in SmartPTT Express Server and cannot be changed.

SmartPTT Express Configurator					
System Configuration		÷	¢>	\$⊱	
Licenses	Digital Audio Recording Parameters				
System Parameters	g				
Consoles	Retention Period (Months)				
 Users 					
 Radio Systems 	Overflow Policy Replace Oldest				
Talkgroups					
 Layouts 	Audio Archive Size Depends on free disk space				
Digital Audio Recording	Fixed size (MB)				
Location Service					
SCADA					
					5

Figure 57: Digital Audio Recording Parameters

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; increment is 1; default value is 1.

Notice:

If you edit this parameter and save changes, they will only apply from the next calendar day. To apply changes immediately, restart SmartPTT Express Server.

Overflow Policy

SmartPTT Express behavior when the maximum size of the Audio Archive is reached. If **Replace Oldest** is selected, the oldest records in the archive will be deleted to free up space for new records. If **Discard New** is selected, new records will not be added to the archive as long as the overflow policy is in effect.

The Audio Archive Size area provides the following elements:

• Depends on free disk space

If this option is selected, the Audio Archive will increase in size as needed while more than 20% of disc space is free. Once this threshold is reached, the archive size stops growing and the overflow policy comes

into effect. It will remain in effect as long as less than 20% of disc space is free. Disk space is checked every 30 minutes.

Important:

The amount of free disk space may change as a result of operating system or third-party software activity (for example, events logging, space buffering, updates downloading).

• Fixed Size (option)

If this option is selected, the size of the Audio Archive is limited by the value in the Fixed Size field.

Fixed Size (field)

The maximum size of the Audio Archive in megabytes according to Microsoft Windows convention (can be different from other conventions). The minimum value is **0** (zero); increment is **1** (one); default value is **0** (zero). If the value is **0**, the Audio Archive size reverts to the **Depends on free disk space** option.

Editing the parameters in the tab and saving changes does not apply them immediately. For this, SmartPTT Express Server restart is required.

A.11 Location Service

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

U	SmartPTT Express Configurator						
Sj	stem Configuration			ii:	¢	¢ ⊢	
	Licenses	Location Service Parameters					
	System Parameters						
	Consoles	Retention Period (Months)					
	Users						
	Radio Systems	Map Parameters					
	Talkgroups						
	Layouts	Type Open Street Map V					
	Digital Audio Recording						
	Location Service	URL					
	Location Service	http://{s}.tile.server.name/{z}/{x}/y}.png					
	SCADA						
		Login	Password				
		username	•••••				
							2

Figure 58: Location Service Parameters

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.

Туре

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,	he 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.

Notice:

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.12 <mark>SCADA</mark>

The tab provides settings for accessing SmartPTT Express SCADA. It appears in SmartPTT Express Configurator only if the installed license includes the corresponding feature.

00	^a SmartPTT Express Configurator				— [$\exists \times$
Sj	ystem Configuration		iii	¢	¢-	
	Licenses System Parameters	SCADA Parameters				
	Consoles	URL http://127.0.0.1:5000				
	Users					
	Radio Systems					
	Talkgroups					
	Layouts					
	Digital Audio Recording					
	Location Service					
	SCADA					
						2

Figure 59: SCADA Parameters

On the right pane, the **URL** field is available. In the field, the user enters the URL address to be used by SmartPTT Express Client applications for connecting to SmartPTT Express SCADA.

A.13 Status Bar

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

Connected 🗳

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

Disconnected 🗳

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

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

Contact Information

SmartPTT Express is developed and released by Elcomplus LLC. For more information on the product, visit <u>https://smartptt.com/products/smartptt-express/</u>.

Technical Support

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

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

Email address	support@smartptt.com
Request support online	https://support.smartptt.com/hc/en-us/requests/new
Phone/fax number	+7 38-22 522-511 (<u>dial now</u>)

By default, phone calls are answered by a Russian-speaking operator. Ask him/her to redirect your call to an English-speaking operator.

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 LLC technical support engineer or other Elcomplus LLC representative. Please inform technical support engineers if any undocumented features or configurations were used.

Sales & Marketing

If you have any questions related to SmartPTT Express sales and marketing, use the following contact information:

Email address	<u>sales@smartptt.com</u>
Online email	https://smartptt.com/contacts/

Documentation

To improve customer information, Elcomplus LLC appreciates any feedback on this document. Please send your comments, suggestions, and report documentation issues to <u>support@smartptt.com</u>.

Glossary

In the document, the following terms are used:

DIMETRA Console User

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

SmartPTT Express Client User

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

Dispatch Console

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

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".

Retention Policy

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

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.

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