SmartPTT

SmartPTT PLUS 9.5

Web Client Setup and User Guide

April 2019

Document History

Edition	Description	Date
2.0	Third release of the document. The content is compliant to SmartPTT Web Client for SmartPTT PLUS 9.5.	April 2019
1.1	Second release of the document: • Added External Access Configuration. • Updated screen captures. • Fixed minor grammar issues.	December 2018
1.0	First release of the document.	November 2018

Contents

Contents

1. About This Document

The document explains how to install, configure, and use SmartPTT Web Client. It is intended for installation engineers, and dispatchers who will use SmartPTT Web Client.

Conventions

The document uses the following conventions:

- **Bold** represents names and titles of the graphical user interface elements. For example, the **Message** field.

- *Italic* represents names of the referenced manuals.

- Both ***bold and italic*** represent values that user should select in the graphical user interface.

- Monospaced represents text that user must enter exactly as it is presented in the document.

- Monospaced in triangular brackets (<>) represents format of the user-specific input. For example, `<Radioserver IP Address>`

- Web Client screen captures are taken in Google Chrome operated in the Incognito Mode.

1.1 Glossary

In the document, the following terms are used:

Radioserver
Component of the SmartPTT software that provides server functions.

Dispatcher
User of the dispatch software installed in the dispatch console.

Dispatch Console
Computer hardware with dispatch software components that provides controls and indicators for voice calls, location features, and more.

Radio
Personal communication device for radio systems.

Subscriber
A person that uses radio for communication.

Access List

> Subscribers, talkgroups, channels, and other entities available to communicate with dispatcher.

2. Overview

SmartPTT Web Client is a lightweight web console for SmartPTT dispatchers. It is a client application that requires connection to Radioserver to request and receive information. It operates only with the main Radioserver (no alternate/redundant Radioserver is supported).
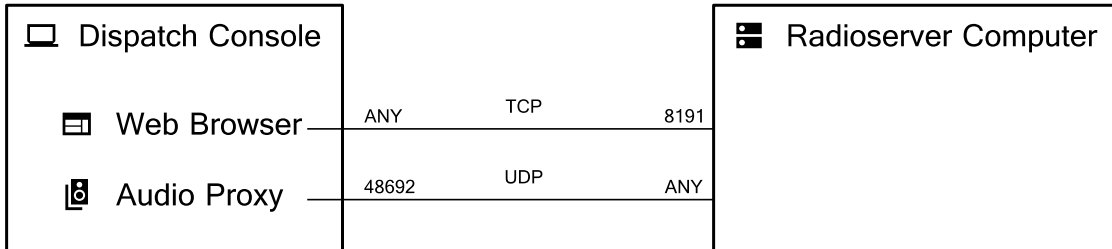
Fig. 1—SmartPTT Web Client Overview

To play event tones, SmartPTT Web Client requires the AudioProxy service to be installed and running on the dispatcher's computer.

2.1 User Interface

SmartPTT Web Client user interface consists of the following elements:

- The toolbar is located in the top part of the web page. It provides the **Volume Level ( )**, **Disconnect ( )**, **About SmartPTT Web Client ( )**, and **Log Out ( )** buttons.

- The sidebar is located in the right part of the web page. It provides the **Map ( )**, **Event Log ( )**, and **Settings ( )** buttons.

- Radio Fleet that is placed in the left part of the web page. For details, see Radio Fleet.

- Working area in the central part of the the page. It is used for displaying Google Maps or Event Log.

Fig. 2—User Interface Overview

2.2 Features
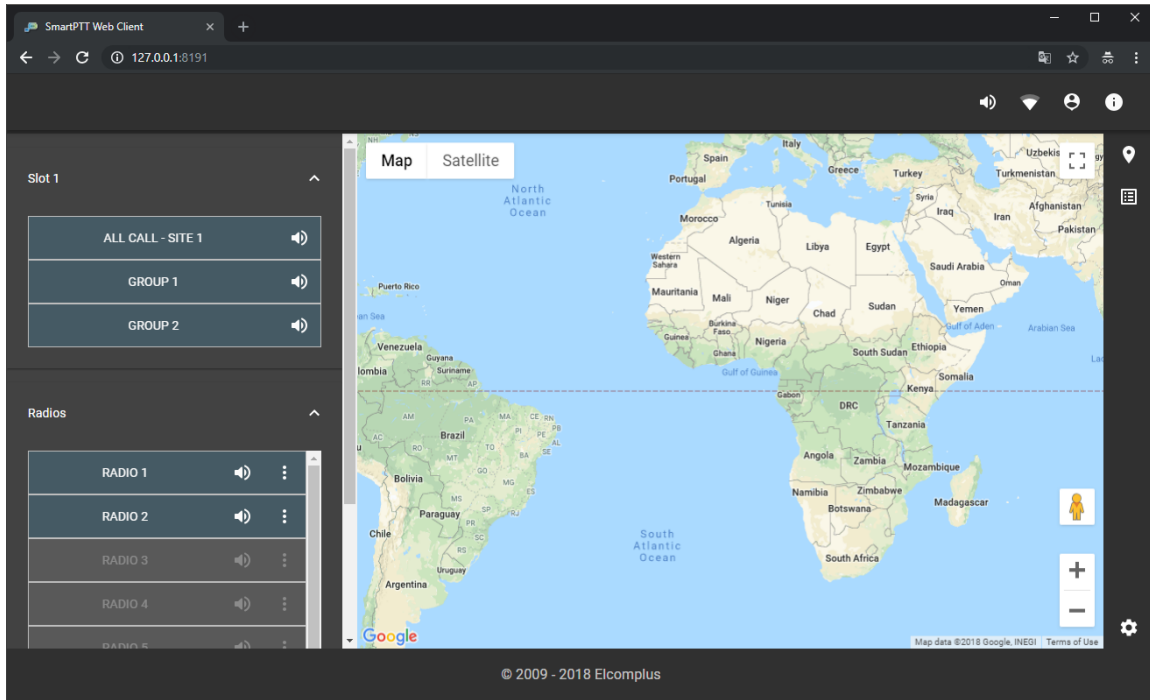
SmartPTT Web Client provides the following features:

- Text messages

- Radio location (visualization in Google Maps)

- Per-session Event Log

- Event tones

- Color themes (dark and light)

- English and Russian language support (runtime switch)

For completeness, users must know about the current release limitations:

- SmartPTT Web Client does not keep Radioserver connection when user reloads/refreshes the web page. Each reload requires authentication and starts a new session.

- SmartPTT Web Client does not support Radioserver redundancy.

- SmartPTT Web Client does not support multichannel audio systems and routes the same audio to all configured audio outputs.

- SmartPTT Web Client does not provide frequency selection on control stations.

2.3 Requirements

For best SmartPTT Web Client performance, the following requirements must be met:

Parameter	Value
Display size (recommended)	15″ and greater
Screen resolution	1310×760 px and greater
Inputs/outputs	1 audio input (analog or USB)
	1 audio output (analog or USB)
Radioserver version	9.4
Web browser	Google Chrome (recommended)
	Mozilla Firefox
	Microsoft Edge

Networking Requirements

Parameter	Value
Bandwidth	> 2.1 kbps per event (TMS, location update)
Packet Loss	< 15%
Two-Way Delay	< 90 ms
Jitter	< 90 ms

3. Installation and Configuration

This section describes all installation and configuration procedures required for making SmartPTT Web Client ready for use. It also explains how to configure audio devices for playing event tones.

3.1 Web Client Installation

The SmartPTT Web Client installation includes the following stages:

- Manual uninstallation of the previous SmartPTT Web Client version (9.3 or earlier). For details, see Uninstalling Older Clients.

- Installation of the new web server which is performed together with the Radioserver installation. For details, see "Software Installation" in *SmartPTT PLUS Installation and Configuration Guide*.

- Audio Proxy installation. For details, see Installing Audio Proxy.

3.1.1 Uninstalling Older Clients

Follow the procedure to uninstall earlier SmartPTT Web Client version from the computer. This implies any SmartPTT Web Client released before the current version.

Prerequisites:

- Log on to the computer as a Windows Administrator.

- Determine the .NET Framework version you were using for the SmartPTT Web Client installation.

Procedure:

1. Stop and remove all related IIS websites:

   a. Start Internet Information Services (IIS) Manager.

   b. In the manager window, in the **Connections** pane (on the left), expand **<Computer Name>** and select **Application Pools**.

   c. In the **Application Pools** pane (in the middle), click *<SmartPTT Web Client entry>*.

   d. In the **Actions** pane (on the right), click **Stop**.

e. In the same pane, click **Remove**. If asked, confirm the removal.

f. In the **Connections** pane, expand **<Computer Name> → Sites** and select *<SmartPTT Web Client entry>*.

g. Right-click the entry. From the shortcut menu, select **Manage Website → Stop**.

h. Right-click the entry again. From the shortcut menu, select **Remove**. If asked, confirm the removal.

2. Repeat step 2 for all SmartPTT Web Client websites.

Note
Multiple SmartPTT Web Clients were needed to provide user access from the Local Area Network (LAN) and Wide Area Network (WAN).

3. Remove older SmartPTT Web Client files from the computer.

4. Turn off relevant Windows features (only if they are not used anywhere else):

a. Start the Windows Control Panel.

b. In Control Panel, change the view to **Small icons** or **Large icons**.

c. Click **Programs and features**.

d. In the left pane, click **Turn Windows features on or off**.
The **Windows Features** window appears.

e. In the window that appears, clear the following check boxes:

  • IIS Management Console (available in **Internet Information Services → Web Management Tools**)

  • .NET Extensibility 4.6 (available in **Internet Information Services → World Wide Web Services → Application Development Features**)

  • ASP.NET 4.6 (available in **Internet Information Services → World Wide Web Services → Application Development Features**)

  • ISAPI Extensions (available in **Internet Information Services → World Wide Web Services → Application Development Features**)

  • ISAPI Filters (available in **Internet Information Services → World Wide Web Services → Application Development Features**)

- Default Document (available in **Internet Information Services** → **World Wide Web Services** → **Common HTTP Features**)

- Directory Browsing (available in **Internet Information Services** → **World Wide Web Services** → **Common HTTP Features**)

- HTTP Errors (available in **Internet Information Services** → **World Wide Web Services** → **Common HTTP Features**)

- HTTP Redirection (available in **Internet Information Services** → **World Wide Web Services** → **Common HTTP Features**)

- Static Content (available in **Internet Information Services** → **World Wide Web Services** → **Common HTTP Features**)

- HTTP Logging (available in **Internet Information Services** → **World Wide Web Services** → **Health and Diagnostics**)

- Request Monitor (available in **Internet Information Services** → **World Wide Web Services** → **Health and Diagnostics**)

- Basic Authentication (available in **Internet Information Services** → **World Wide Web Services** → **Security**)

- Request Filtering (available in **Internet Information Services** → **World Wide Web Services** → **Security**)

- Windows Authentication (available in **Internet Information Services** → **World Wide Web Services** → **Security**)

f.   In the Windows Features window, click **OK**. If asked, confirm the changes.

5. Deregister ASP.NET:

a.   Run the Command Prompt as administrator.

b.   Type one of the following deregistration commands:

- If you are using 32-bit operating system, enter `%windir% \Microsoft.NET\Framework\v<full .NET Framework version>\aspnet_regiis.exe -u`

- If you are using 64-bit operating system, enter `%windir% \Microsoft.NET\Framework64\v<full .NET Framework version>\aspnet_regiis.exe -u`

      c.   Close Command Prompt.

6. In the router settings, remove the port forwarding rules used for SmartPTT Web Client access from the WAN.

3.1.2 Installing Audio Proxy

Follow the procedure to install Audio Proxy to the dispatch console computer.

Prerequisites:

Log on to the computer as a Windows Administrator.

Procedure:

1. Start **SmartPTTSetup.exe**.

2. If .NET Framework installation is required, install it.

3. After .NET Framework is installed, start **SmartPTTSetup.exe** again.
   Language selection window appears.

4. Select the installation language:

   a.   In the window that appears, click the current language.

   b.   From the dialog window, select the desired language, and then click **Apply**.

   c.   Click **Next**.

5. In the **License Agreement** window, select the **I accept the terms in the License Agreement** check box, and then click **Next**.

6. *Optional:* In the **Custom Setup** window, select the required software components.

7. In the same window, select the **SmartPTT Audio Proxy** check box, and then click **Next**.

8. In the **Ready to Install the Program** window, click **Install**.

9. In the **Setup Completed** window, click **Finish** to close the setup window and exit the installation program.

10. Restart the computer to ensure that the changes are applied.

Postrequisites:

Perform the procedure on each dispatch console computer.

3.2 Antivirus and Firewall Configuration

SmartPTT Web Client is a network web application. For successful communication, it requires some ports to be unlocked for bidirectional communication.

Radioserver

Transport	Value	Description
TCP	8191	SmartPTT Web Client connection and commands exchange. The port number can be changed if required.
UDP	ANY	Audio routing between Radioserver and Audio Proxy.

Dispatch console

Transport	Value	Description
TCP	ANY	Radioserver access and communication.
UDP	48692	Audio routing between Radioserver and Audio Proxy. The port number cannot be changed.

3.3 Radioserver Configuration

Proper Radioserver configuration includes the following actions:

- License installation. For details, see "Licenses" in *SmartPTT PLUS Radioserver Configuration User Guide*.

- User profile creation and configuration. For details, see "Profiles" in *SmartPTT PLUS Radioserver Configurator User Guide*.

Important
SmartPTT Web Client support only remote control stations that use MOTOTRBO or MDC-1200 radio signaling. Control stations connected over GPIO are not supported.
Ensure that unsupported control stations are excluded from the SmartPTT Web Client user profile.

- SmartPTT Web Client user account creation. For details, see "Client List" in *SmartPTT PLUS Radioserver Configurator User Guide*.

- WSS interface configuration and SmartPTT Web Client support activation. For details, see "Clients Connection" in *SmartPTT PLUS Radioserver Configurator User Guide*.

3.3.1 External Access Configuration

To provide access to SmartPTT Web Client over the Internet, you need to perform the following actions:

- Configure IP address forwarding from the external router IP address to Radioserver IP address.

- Configure port forwarding from the external router TCP port (Web Client Port) to the Radioserver WSS port. The default port value is *8191*. For details, see "Clients Connection" in *SmartPTT PLUS Radioserver Configuration User Guide*.

- Configure port forwarding from the external router TCP port to the Radioserver main port. The default port value is *8888*. For details, see "Radioserver" in *SmartPTT PLUS Radioserver Configuration User Guide*.

- Configure port forwarding from the external router UDP port to the Radioserver VoIP port. The default port value is *18500*. For details, see "Radioserver" in *SmartPTT PLUS Radioserver Configuration User Guide*.

After the configuration, SmartPTT Web Client will be available at the `<external router IP>:<Web Client Port>` address.

3.4 Logging on to Web Client

Follow the procedure to log on to SmartPTT Web Client.

Prerequisites:

- Obtain the SmartPTT Web Client address from your system administrator.

- Obtain the SmartPTT Web Client user credentials.

Procedure:

1. Open the web browser.

2. In the search field, enter the SmartPTT Web Client address.
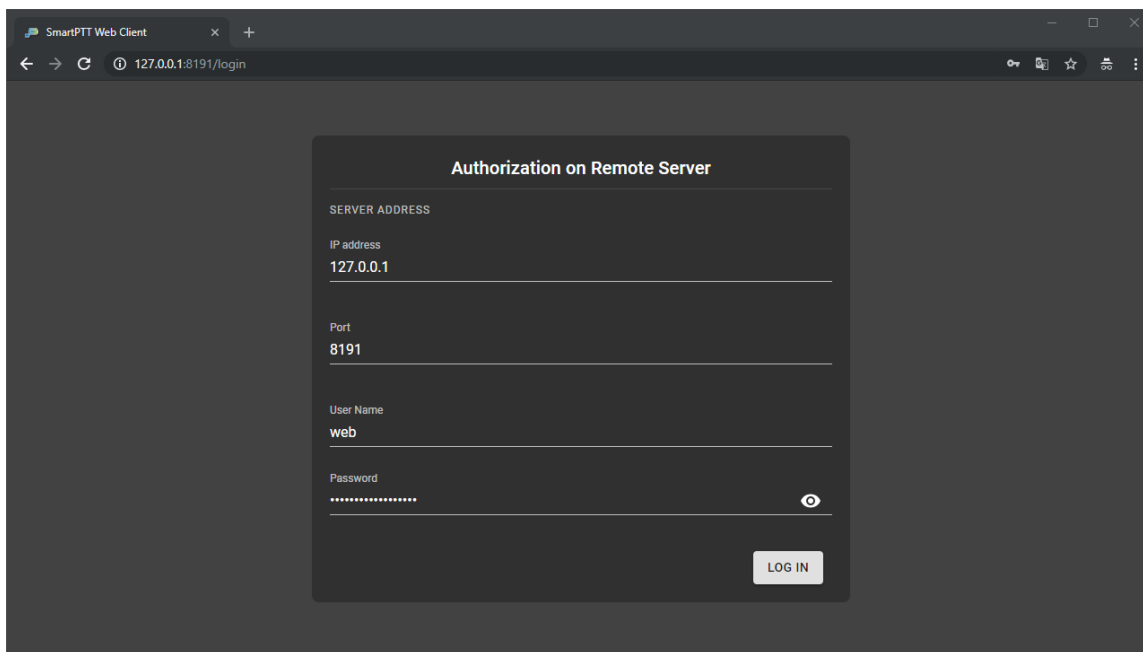   The web page with the **Authorization on Remote Server** box appears.

Fig. 3—Radioserver Connection at Logon

3. In the **IP address** field, type the radioserver IP address.

4. In the **Port** field, type the WSS port number.

5. In the **User name** field, type the user login.

6. In the **Password** field, type the user password.

7. *Optional:* Check the password correctness:

   a. Click **Show password (👁)** to show the typed password.
      The button changes to **Hide password (🚫👁)**.

   b. Click **Hide password (🚫👁)** to hide the typed password.

8. Click **LOG IN**.
   The main page of the SmartPTT Web Client appears.

3.5 Web Client Configuration

SmartPTT Web Client configuration includes configuring of audio devices, event tones, and SmartPTT Web Client layout.

3.5.1 Configuring Audio Devices

Follow the procedure to configure audio routing for correct event audio indication.

Prerequisites:

- Connect audio inputs (microphone) and outputs (speakers or headsets) to the computer.

- Log on to SmartPTT Web Client.

Procedure:

1. In SmartPTT Web Client, in the lower-right corner, click **Settings (⚙)** → **Audio Device Settings (♪)**.
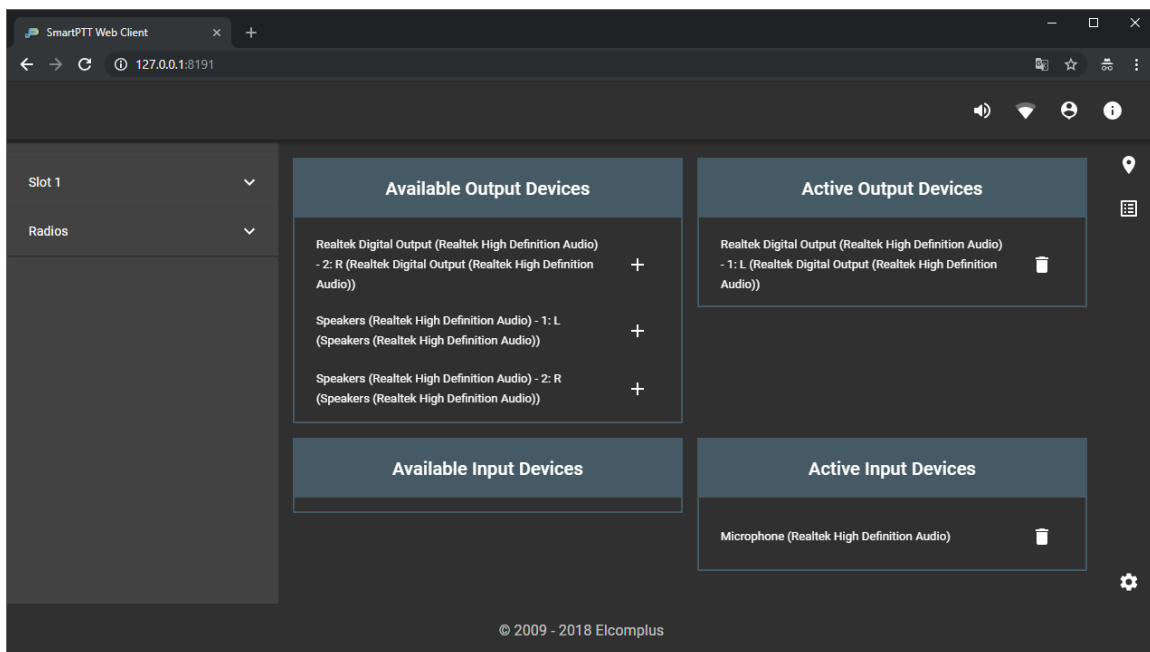   The audio device settings appear.

Fig. 4—Audio Device Settings

2. In the **Available Output Devices** box, click **Add (+)** next to the desired audio speaker or headset.
    The added device appears in the **Active Output Devices** box.

3. Leave the **Available Input Devices** and **Active Input Devices** areas unchanged.

3.5.2 Configuring Event Tones

Follow the procedure to configure the event tones for incoming messages.

Prerequisites:

Log on to SmartPTT Web Client.

Procedure:

1. In the lower-right corner of the page, click **Settings (✿) → Notification Settings (🔔)**.
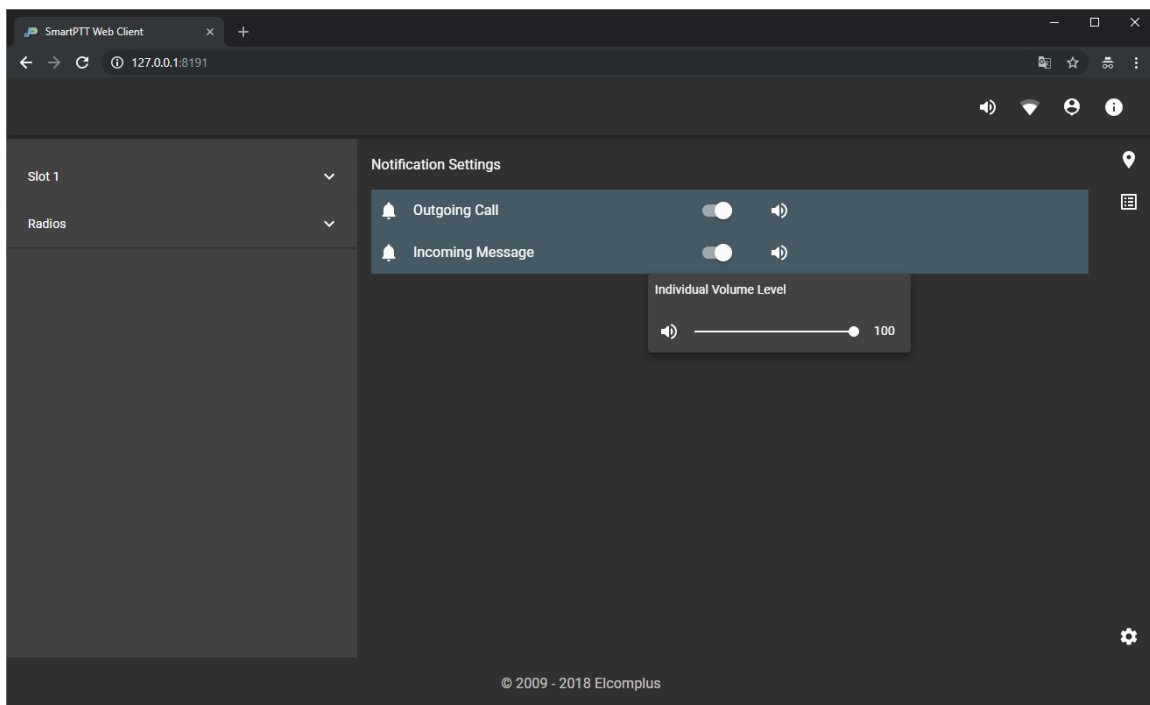   The notification settings appear.

Fig. 5—Ringtone Settings

2.   Leave the **Outgoing Call** settings unchanged.Configure the incoming message notification:

To turn on the tone,	in the **Incoming Message** line, perform the following actions:
	1. Click Turn on (⬤▬).
	2. In the same line, click **Volume Level (🔊)**.
	3. Move the slider to the right or left to increase or decrease the notification volume level.
To turn off the tone,	in the **Incoming Message** line, click Turn off (▬⬤).

3.5.3 Custom Tones

You can change the default event tones. The audio files must meet the requirements provided in the following table:

Parameter	Value
File name (with extension)	Incoming TMS: Speech_Off.37363972.wav
Path to file	\SmartPTT\Server\static.zip\media\
File duration	0–1 s
Audio type	mono (single channel)
File format	WAV

3.5.4 Changing Themes and Languages

Follow the procedure to change the color theme and interface language of SmartPTT Web Client.

Prerequisites:

Log on to SmartPTT Web Client.

Procedure:

1. In the lower-right corner of the page, click **Settings (✿)** → **General Settings (✿)**.
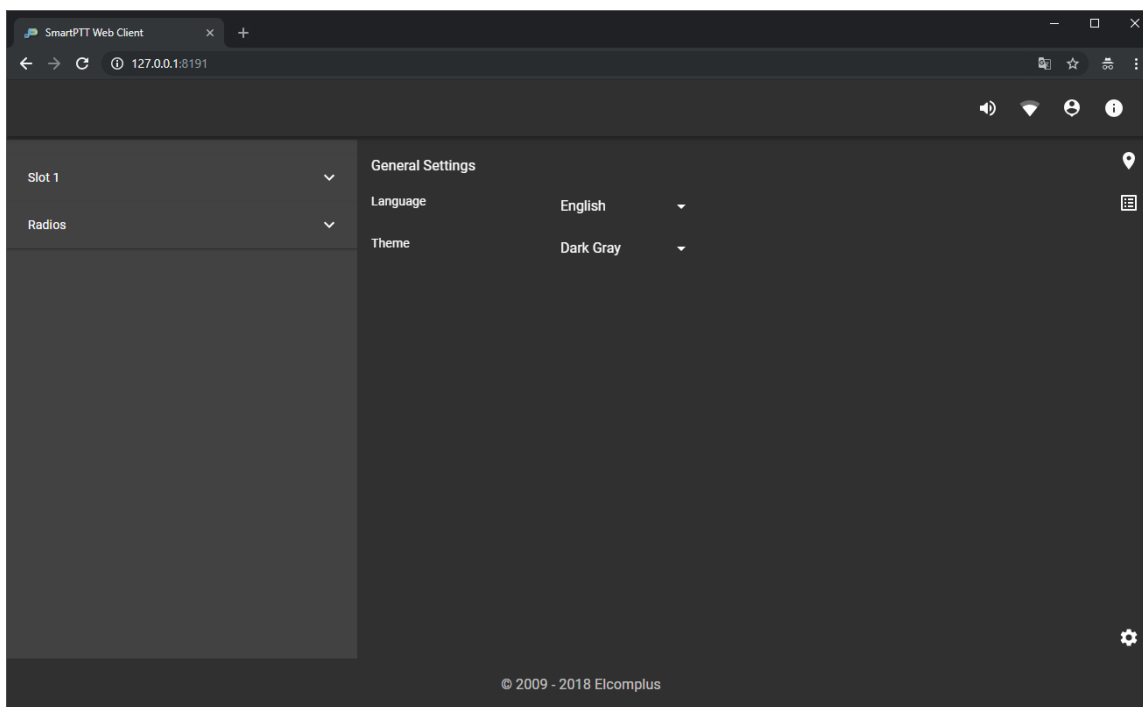   The customization settings appear.

Fig. 6—Customization Settings

2. From the **Language** list, select the desired language.

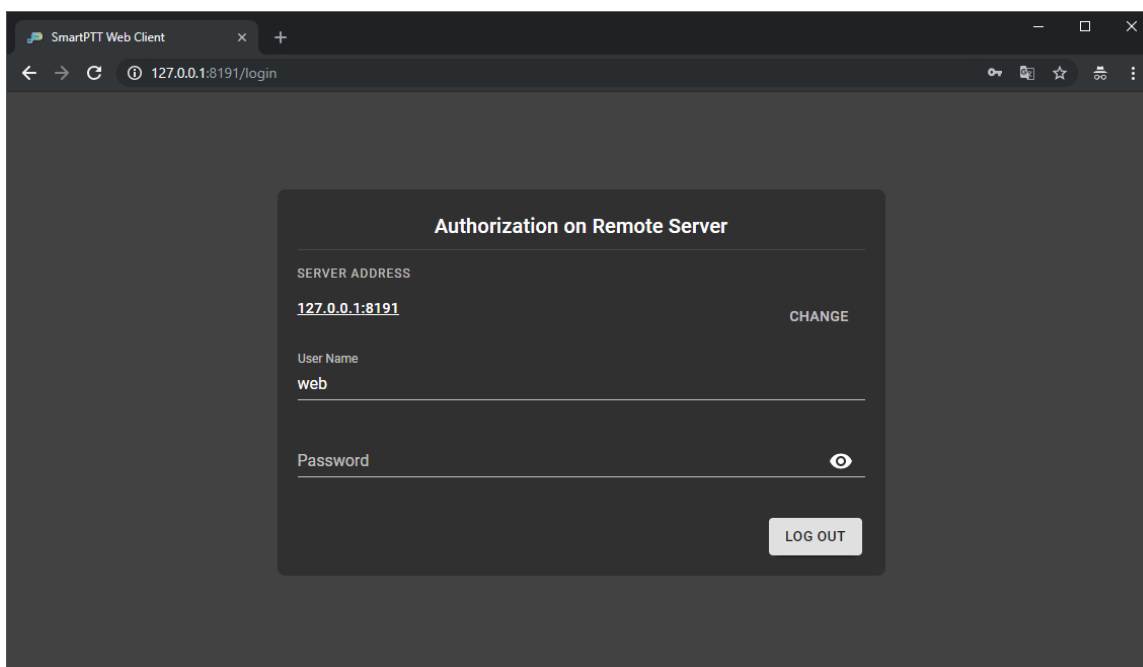3. Form the **Theme** list, select the desired theme.

3.6 Disconnecting from Radioserver

Follow the procedure to disconnect from the current Radioserver.

Procedure:

1. In SmartPTT Web Client, click **Server Connection (▼)**.
   The **Authorization on Remote Server** box appears.

2. In the **Server Address** area, click **CHANGE**.
   The **IP address** and **Port** fields appear.

3. Log on another Radioserver. For details, see Logging on to Web Client.

4. Using the Client

This section describes the use of SmartPTT Web Client.

4.1 Radio Fleet

The Radio Fleet (radios, talkgroups, and All Calls) appears in the left part of the web page. The pane is always displayed and cannot be hidden.
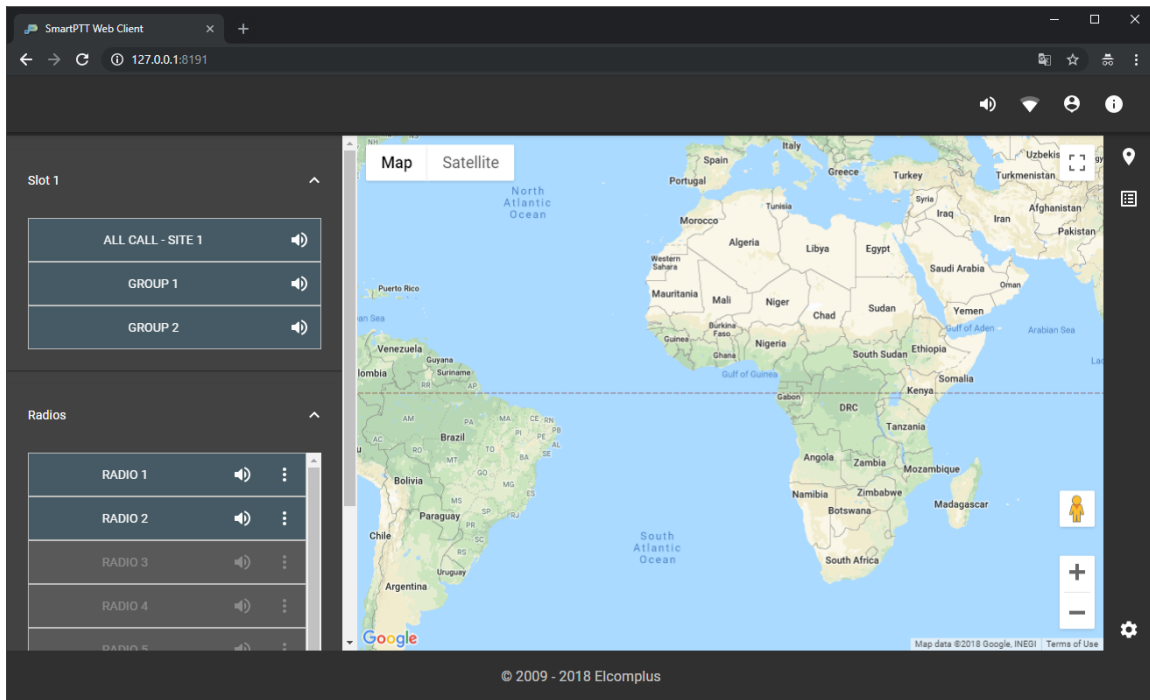

Fig. 7—Radio Fleet Example

The pane contains expandable lists that provide access to radios and groups.

The **Radios** list provides the list of registered radios.

Other expandable lists depend on the radio system configuration. They may include talkgroups, All Calls, and Site All Calls (for multisite radio systems).

4.1.1 Renaming Radio

Follow the procedure to rename the radio.

Prerequisites:

Log on to SmartPTT Web Client.

Procedure:

1. In the left part of the page, expand the **Radios** control.

2. In the list of radios, to the right of the desired radio, click **Actions (⋮)**.
    The Actions menu appears.

3. In the Actions menu, click **Rename (✎)**.
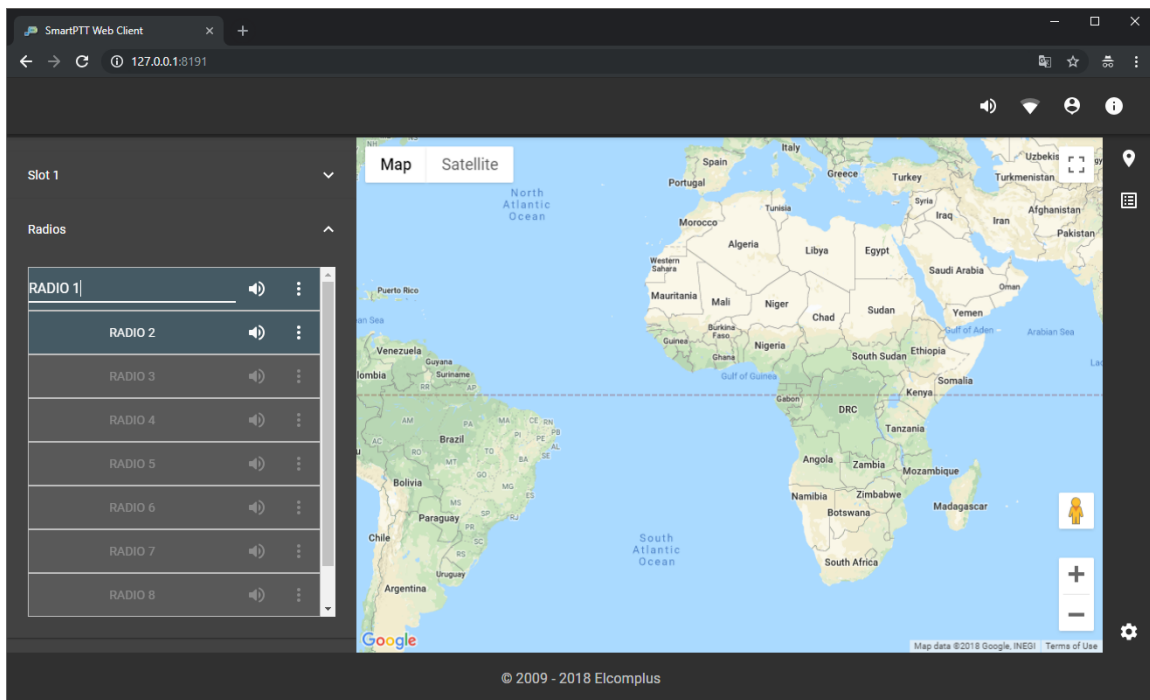   The radio name becomes editable.

Fig. 8—Editable Radio Name

4. On the left, type a new radio name, and then press Enter.
    The radio name changes.

4.2 Speaker Volume

You can adjust the volume level of event tones on configured audio outputs by decreasing it in SmartPTT Web Client.
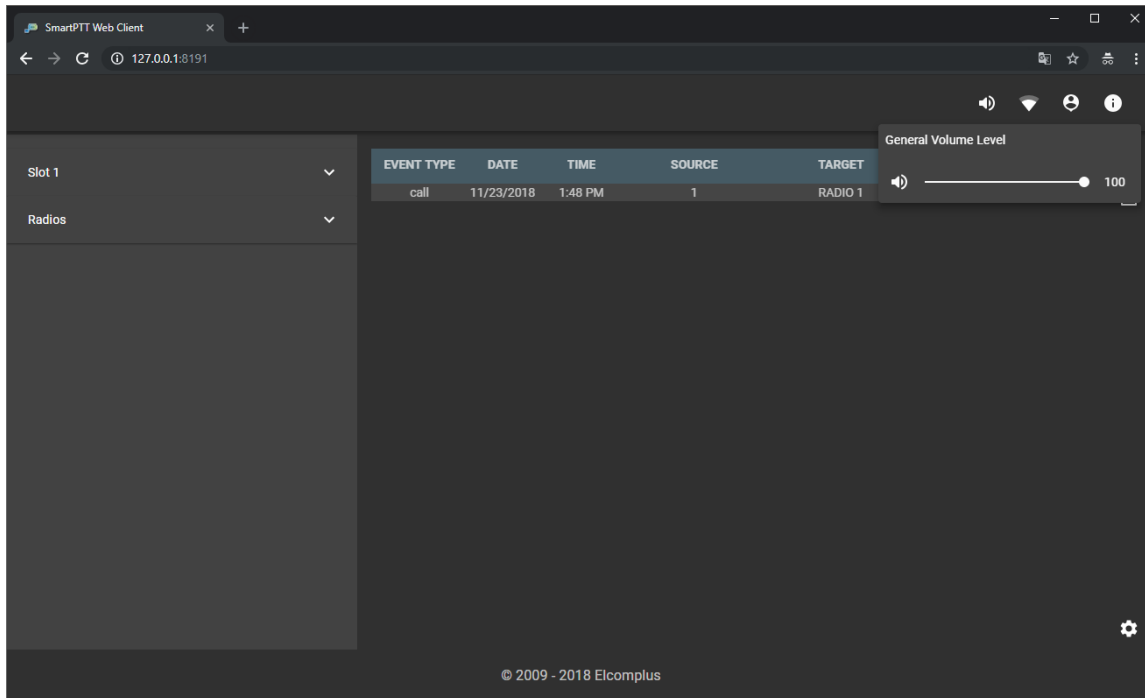

Fig. 9—General Volume Level

The speaker volume slider appears when the user clicks **Volume Level ( )** in the upper-right corner of the web page. User may drag the volume slider to the right or left to increase or decrease speaker volume respectively. The icon changes in accordance with the current volume level in the following way:

- When the volume level is 66–100%, the High Volume Level ( ) icon appears.

- When the volume level is 33–65%, the Medium Volume Level ( ) icon appears.

- When the volume level is 1–32%, the Low Volume Level ( ) icon appears.

- When the volume level is 0%, the Muted Volume ( ) icon appears.

4.3 Individual Volume

Each object (radio, talkgroup, or All Call) provides individual **Volume Level (◀))** control which is available in the right part of the corresponding object. The individual volume is configured in the same way as the speaker volume. For details, see Speaker Volume.

4.4 Using Radio Signaling Commands

Follow the procedure to send one or several radio signaling commands (Radio Check, Block Radio, or Unblock Radio).

Prerequisites:

Determine the radio that should receive the command.

Procedure:

1. In SmartPTT Web Client, on the left, expand the **Radios** control.

2. In the list of radios, on the right of the desired radio, click **Actions (⋮)**.
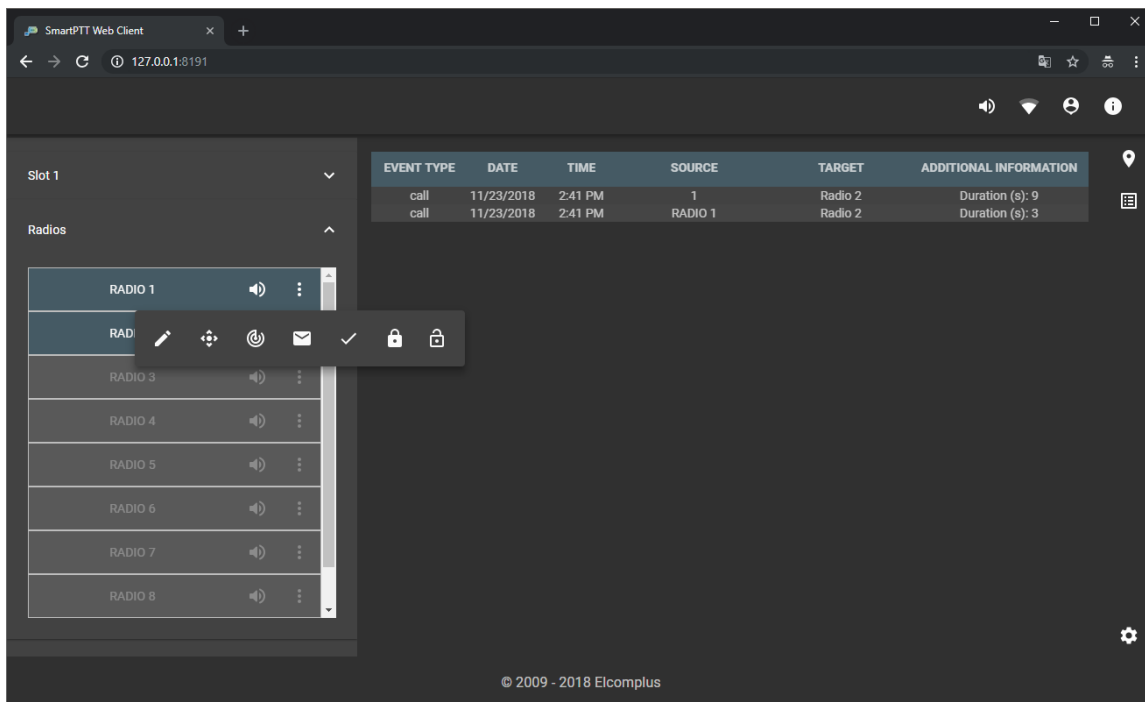   The Actions menu appears.

Fig. 10—Radio Signaling Commands

3. From the Actions menu, select the desired action:

- To send the Radio Check command, click **Radio Check (✓)**.
  Information about the command appears in the Event Log.

- To send the Block Radio (Radio Disable) command, click **Block Radio (🔒)**.
  Information about the command appears in the Event Log.

- To send the Unblock Radio (Radio Disable) command, click **Unblock Radio (🔓)**.
  Information about the command appears in the Event Log.

4.5 Text Messaging

SmartPTT Web Client is able to receive and send text messages (TMS) if the corresponding permission is granted to the dispatcher. It also monitors text messages sent between radios.

Incoming Text Message

Dispatchers identify incoming text messages in the following way:

- The event tone is played from speakers.

- A new entry appears in the Event Log.

> **Important**
> No visual indication (popup window) is provided.

4.5.1 Sending Private Text Messages

Follow the procedure to create and send text message to a radio. Group text messages are not supported.

Prerequisites:

Determine the radio that should receive your message.

Procedure:

1. In SmartPTT Web Client, on the left, expand the **Radios** control.

2. In the list of radios, on the right of the desired radio, click **Actions (⋮)**.
    The Actions menu appears.

3. In the Actions menu, click **Send message (✉)**.

   The dialog box for entering text appears.
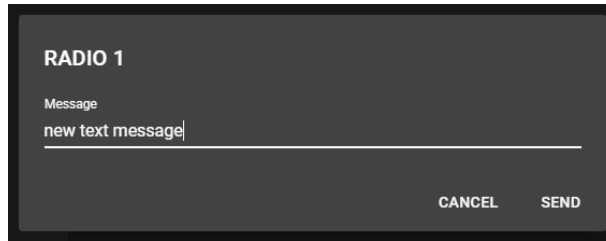
RADIO 1

Message

new text message

CANCEL   SEND

Fig. 11—Send Message Dialog Box

4. In the dialog box, in the **Message** field, type the message, and then click **SEND**.

4.6 Tracking Radios on Maps

Follow the procedure to track a radio on a map.

Prerequisites:

Determine the radio which you want to track.

Procedure:

1. In SmartPTT Web Client, on the right, click **Map (📍)**.

2. On the left, expand the **Radios** control.

3. In the list of radios, on the right of the desired radio, click **Actions (⋮)**.
   The Actions menu appears.

4. From the Actions menu, perform one of the following actions:

    •   To center the map on the radio, click **Find on Map (⊕)**.
        The map centers on the radio pin with the radio name.

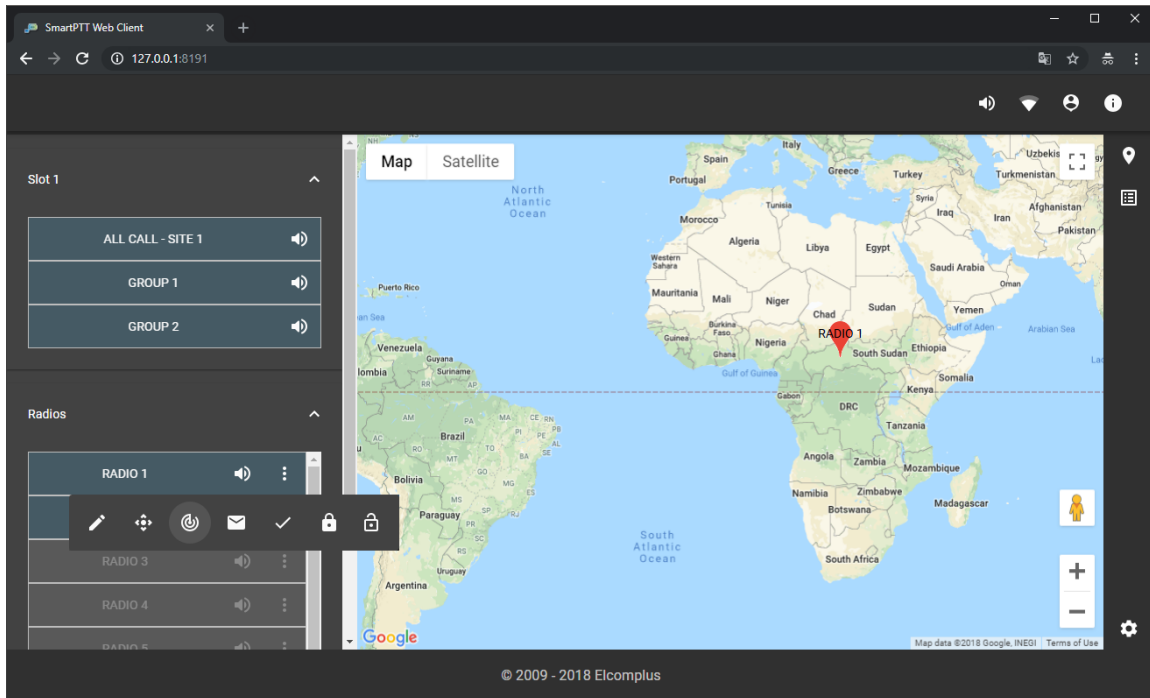   •   To update the radio location, click **Update Location (◎)**.

Fig. 12—Map View Example

Note
Both **Find on Map (⊕)** and **Update Location (◎)** buttons do not open the map. You should open the map manually.

5. *Optional:* To change the map view (change zoom level, switch to the satellite view, or open map on full screen), use the standard map controls.

4.7 Event Log

The Event Log feature provides brief information on events associated with the monitored radios and talkgroups within the current user session. It appears when user clicks **Event Log (▤)** in the upper-right corner of the web page.
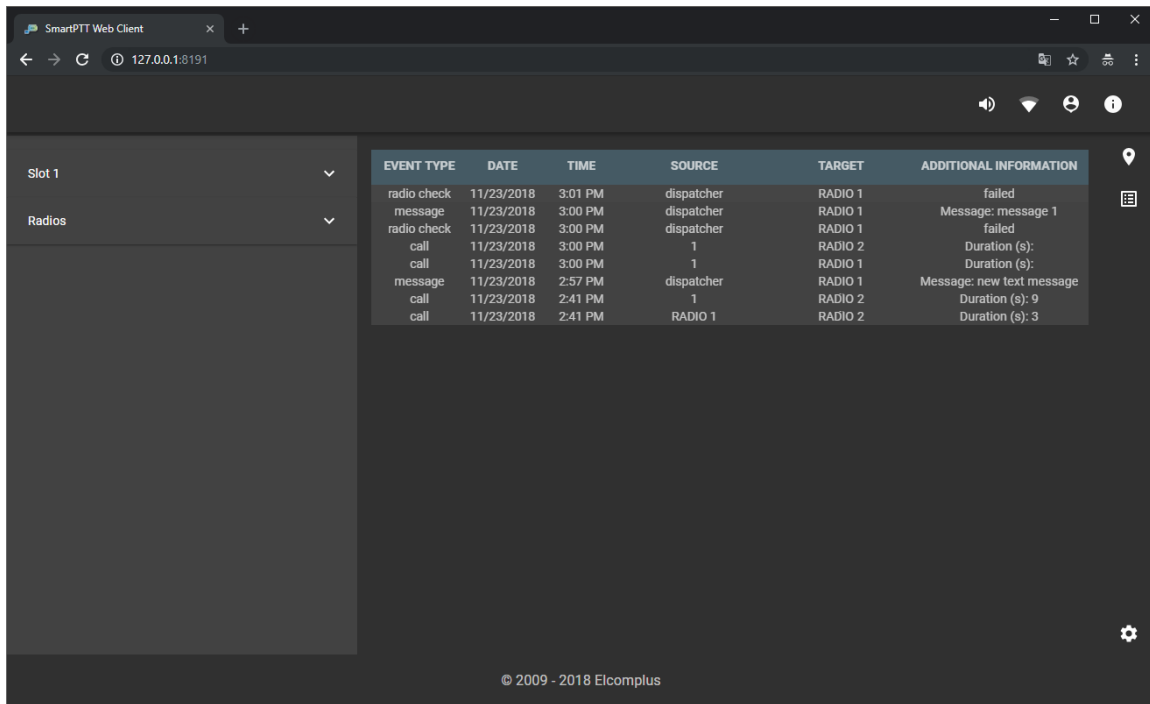

Fig. 13—Event Log Example

Events information is presented in the table with the columns described below.

Column name	Description
Event Type	The column provides one of the following event type information: • The **online** entry appears when radios register in the radio network. • The **offline** entry appears when radios deregister from the radio network. • The **call** entry appears when the voice call is detected by SmartPTT Web Client. • The **message** entry appears when the text message is sent over the radio network. • The **radio check**, **blocked**, or **unblocked** entries appear when the corresponding commands are sent over the radio network.
Date	The column provides the date when the event was detected. It uses short date format configured on the user computer.

Column name	Description
Time	The column provides the time when the event was detected. It uses short time format configured on the user computer.
Source	The column provides the ID or alias (if available) of the event initiator.
Target	The column provides the ID or alias (if available) of the event recipient.
Additional Information	Depending on the event type, the column provides the following information: • For voice calls, it provides the call duration in seconds. • For text messages, it provides the content of the message.

4.8 Logging Out

Follow the procedure to log off from the current session, and log on using another account. The procedure is similar to the logon procedure. For details, see Logging on to Web Client.

> **Important**
> You cannot cancel the procedure.

Procedure:

1. In SmartPTT Web Client, in the toolbar, click **Log Out (⊖)**.
   The **Authorization on Remote Server** box appears.

2. In the **User name** field, type another user name.

3. In the **Password** field, type the user password.

4. Click **LOG IN**.
   The main page of the SmartPTT Web Client appears.

5. Contact Us

The document describes the product developed by Elcomplus LLC. The official company's website is www.elcomplus.com.

For contact information with the Elcomplus LLC representatives, see www.elcomplus.com/contacts.

Technical Support

Customer support is provided by Technical Support Center. The official website of the Center is support.smartptt.com.

To contact the support engineer, perform one of the following actions:

- Fill in and submit the support request from the website.

- Email the support request to support@smartptt.com.

In America, customer support is provided by Elcomplus, Inc. To contact support engineers, use the following contact information:

- Phone: +1 786-362-5525

- Email: miami@smartptt.com

- Mailbox: 290 NW 165th St, Ste P-200, 3rd Flr
  Miami, FL, 33169, USA

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Customer Documentation

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