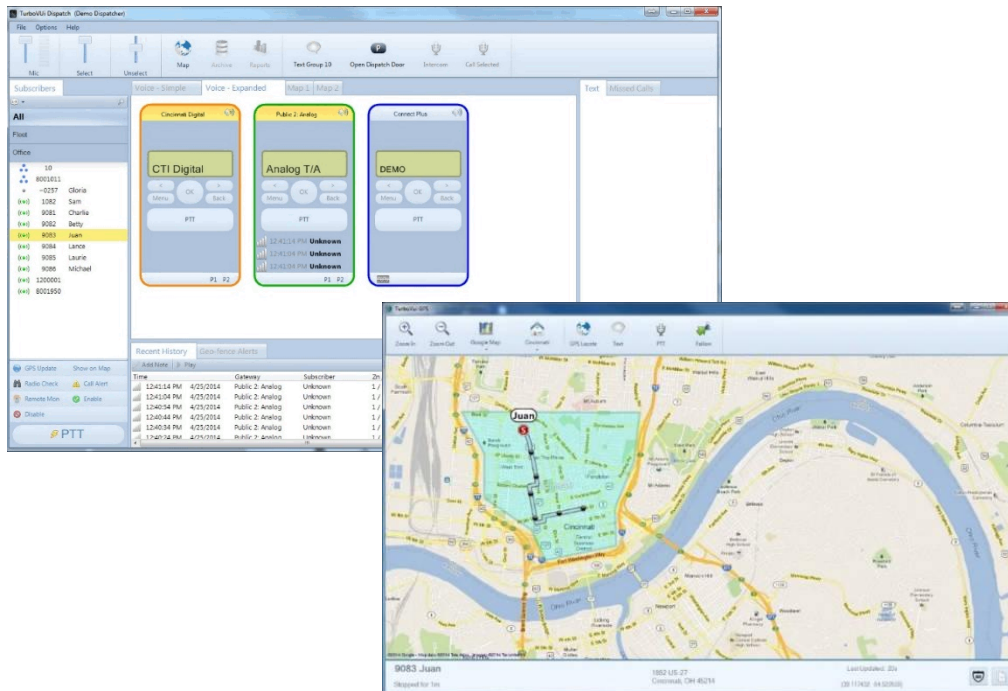# CTI Products

RadioPro™ Dispatch

Installation and Configuration Guide

For Version 9 Software

Contact Us

Support, replacement part ordering, and service may be arranged by contacting our Cincinnati office. Parts for service can be returned following request of a Return Material Authorization.

CTI Products, Inc.
1211 W Sharon Rd
Cincinnati, OH 45240

513-595-5900
support@ctiproducts.com

Disclaimer

Information in this document is provided with best efforts for completeness and accuracy. However, no guarantee is expressed or implied, and details may change without notice.

Fonts used in this document:

Technical terms

Cross-references within this document

Hyperlinks to other documents or web pages

Warnings

Notes and important information

Software buttons, menus, menu options, folders, and pages

Software parameter values

Contents

1 SYSTEM OVERVIEW

RadioPro™ provides remote access to 2-way radios via IP Networks. This "Dispatch over IP" (DoIP) solution consists of PC-based software allowing voice and data communications between PC users and 2-way radio subscribers. Communications with radio subscribers is also possible for remote mobile users using Android or iOS devices. A RadioPro system consists of at least one RadioPro IP Gateway (server) and at least one client (Dispatch™, Solo™, or Talk for Mobile™) with an IP network connecting the RadioPro components.

1.1 System Components

CTI's Dispatch over IP system is based on Server-Client architecture. System components are described below:

- **RadioPro IP Gateway Kit** (CTI Part # S2-61815) is the hardware interface that connects a mobile radio (control station) to an IP network. The IP Gateway is the *Server* for the control station radio connected to it. Each control station radio used for voice requires one IP Gateway. System components, such as IP Gateways and clients (Dispatch, Solo, or Talk Mobile), may be located together or separated geographically and connected via a Wide Area Network (WAN) or Virtual Private Network (VPN). An optional license can be purchased for the IP Gateway to allow users of Solo or Talk for Mobile client applications to connect to the two-way radio system. Each IP Gateway requires a static IP address. For more information, see the following documents:

  RadioPro IP Gateway Installation Guide
  RadioPro IP Gateway Data Sheet
  RadioPro Family of Products

- **RadioPro Dispatch Client**
  is a dispatch console for PCs that provides voice dispatching to multiple simultaneous radio channels or talk groups, as well as GPS/AVL, Telemetry, Text Messaging, and Voice Logging. Windows 10 Pro, 8 Pro or Windows 7 Pro operating system is required. This application can be used with either Motorola MOTOTRBO or Kenwood NEXEDGE systems. System components, such as Dispatch clients and IP Gateways, may be located together or separated geographically and connected via a Wide Area Network (WAN) or Virtual Private Network (VPN).
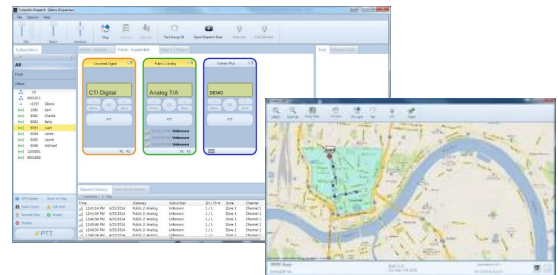
CTI Part #s	Licensable Feature
S1-61770	Core
S1-61771	Voice Module
S1-61772	GPS Module
S1-61773	Telemetry Module
S1-61774	Text Messaging Module

Additional information:
  RadioPro Dispatch User Guide
  RadioPro Dispatch Data Sheet
  RadioPro System Accessories Catalog

- **Solo™ Client** is a software application for Windows that provides voice dispatching to a single radio channel or talk group. The virtual radio head duplicates the full functionality of a control station radio including channel steering for these radio models:

  Motorola
  > XPR 2500, XPR 5550, XPR 5550e

  Kenwood
  > NX-700/720/3720, NX-800/820/3820,
  > NX-5700, NX-5800

  Other features include Voice Logging for 24 hours, Text Messaging, and channel steering. It requires Windows 7, 8 or 10 operating system. The use of this application requires a license installed on the IP Gateway. The license will permit 80 simultaneous Solo or Talk Mobile application users to connect to the radio system. System components, such as clients and IP Gateways, may be located together or separated geographically and connected via a Wide Area Network (WAN) or Virtual Private Network (VPN).

  Additional Information:
  > *RadioPro Solo Client Installation Guide*
  > *RadioPro Solo User Guide*
  > *RadioPro Solo Data Sheet*

- **Talk™ for Mobile devices** is a mobile app for Android™ and iPhone™/iPad™ that provides remote access to a 2-way radio system for voice communications, text messaging, and locating other users. This application can be used with either Motorola MOTOTRBO or Kenwood NEXEDGE systems. The Mobile app is useful over cellular or Wi-Fi networks when you are on-the-go and outside the coverage of your radio system, yet still need radio communications. The use of this application requires a license installed on the IP Gateway. The license will permit 80 simultaneous Solo or Talk Mobile application users to connect to the radio system.
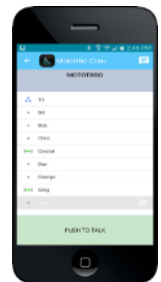
  Additional Information:
  > *RadioPro Talk for Mobile Devices How-to-Guide*
  > *RadioPro Talk for Mobile Devices Data Sheet*

- **Control Station Radio** - A control station radio must be used as the interface to the radio system, and connects to a RadioPro IP Gateway using the rear accessory/communications port. Each control station radio used for voice requires one IP Gateway. Radio models that can be used for a Control Station radio and provide full radio functionality from a RadioPro client include:
    - Motorola MOTOTRBO: XPR 2500/5550/5550e

    - Kenwood NEXEDGE: NX-700/800 NX-720/820
                          NX-3720/3820 NX-5700/5800

- **Personal Computer or Workstation** is required to host the RadioPro Dispatch or Solo clients. See *PCs for Dispatch Client* on Page *10* for more details.

- **Accessories** - Console accessories may include microphone and speakers (or headset), Push-to-Talk footswitch, and touch screen monitor. See *RadioPro Accessories Catalog* for details.

1.2 Architecture

The IP Gateways interface the radio system to an IP network. One IP Gateway is required for each control station radio used for voice. The IP Gateways and control station radios can be centrally located or scattered among different locations using a Virtual Private Network (VPN) or Wide Area Network (WAN) such as the Internet.

Each IP Gateway in a RadioPro system acts as the server for the Control Station Radio connected to it, and ensures easy wide-area deployment. Since there is not a server PC, the architecture reduces "single point-of-failure" concerns.

A system may have a mixture of RadioPro Dispatch, Solo, and RadioPro Talk for Mobile apps running on mobile devices. These Clients may be centrally located or scattered among different locations using a Virtual Private Network (VPN) or Wide Area Network (WAN) such as the Internet.
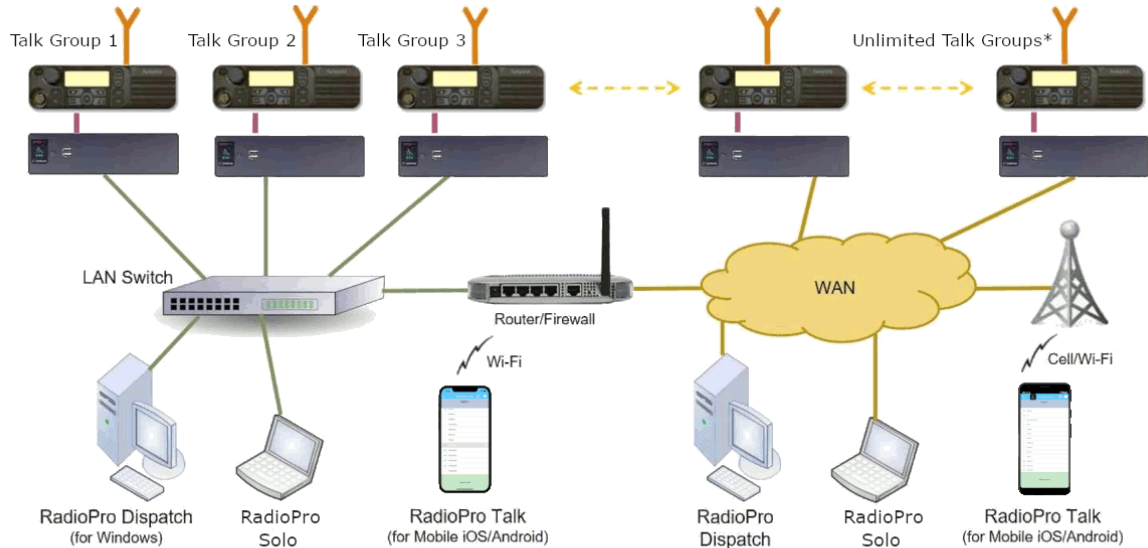
* Max 80 Clients connected to 1 Gateway. Max 70 Gateways connected to 1 Dispatch Client.

System Component Limits

The RadioPro solution was tested and verified to operate up to the maximum number of components listed below.

__Maximum of 80 Clients per IP Gateway__

__Maximum of 70 IP Gateways per Dispatch Client__
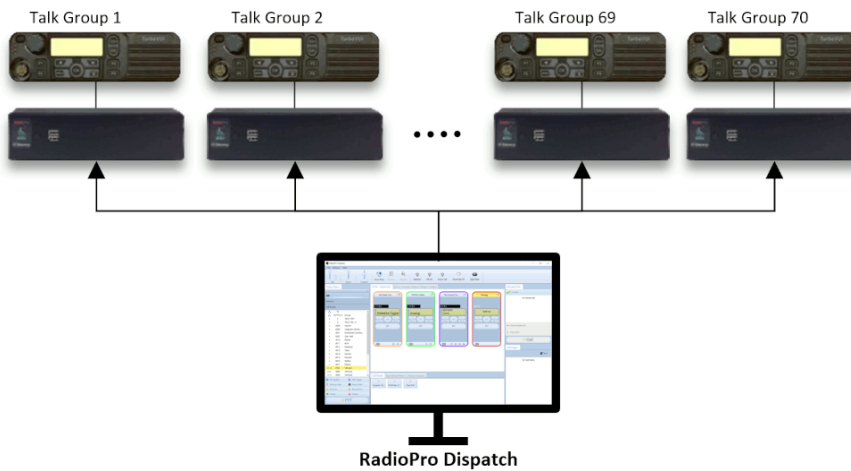
System Planner Document and Template

The *RadioPro System Planner* includes examples for various radio network topologies, and should be consulted if the RadioPro Dispatch client is being deployed.

Use the System Planner Template (located at the end of this document) in the planning phase of a project to record IP addresses, usernames, passwords, serial numbers, and device names.

1.3 What You Will Need

PCs for Dispatch Client

PCs that will be used to run the RadioPro Dispatch client software must have the following:

- Processor: Intel Core i5, or better
- Operating System: Windows 10 Pro recommended. Dispatch client must have "Run as Administrator" enabled under the "Privilege Level" topic of the "Compatibility" tab.
- Memory: 8 GBytes recommended (4 GBytes minimum)
- 1st Hard Disk: 160 GBytes minimum, for Operating System.
- 2nd Partition or Hard Disk: 2 TBytes recommended, for Voice & Event History Logging (500 GBytes minimum). The 2nd Hard Disk may be an external hard disk connected via eSATA, or a network storage device. (Externally connected USB drives are not recommended since many have access times that are too slow.) Alternatively, a 2nd partition on the first hard disk could be used for History Logging. (Logging is not permitted on the C Partition.) At normal Sampling Rate of 11kBytes/s, continuous recording (100% duty) of one radio channel for 24 hours will require 1.9 GBytes of Hard Disk space. Normal channel activity will range from 10% to 60% duty.
- IP Network Interface: 10Mbps or faster. Network bandwidth requirement is 22kBytes/s (maximum) for each connected RadioPro IP Gateway.
- Monitors: Dual recommended if both voice dispatching and GPS mapping functions are used, 20" minimum each, 23" recommended.
- Headset (USB, Analog, or Bluetooth), or Desktop Mic and Stereo Speakers

PCs will also require .Net version 4.0 or higher. During installation of the RadioPro Dispatch client software, allow this update to occur. During Windows updates, select all optional updates.

Audio and PTT Accessories

A professional quality desk microphone and speakers will be needed to transmit and receive audio between a Dispatcher and the radio system. Alternatively, a professional quality headset can be used.

One or more footswitches may also be installed to activate Push-to-Talk for one or more radio channels.

See *RadioPro System Accessories* brochure for recommended accessories.

RadioPro Dispatch Client Distribution USB Flash Drive

The RadioPro Dispatch client is available on the distribution USB Flash Drive.

RadioPro Dispatch License USB Flash Drive

Each PC that runs the RadioPro Dispatch client requires a unique software license file. Installation of a valid software license allows the following:

- Connection to a number of RadioPro IP Gateways.
- Proper operation of software modules such as Voice, GPS, Text, and Telemetry.

USB Flash Drive contains this license file.   Connections for additional IP Gateways and additional modules can be purchased and added to the license file at any time.

RadioPro Dispatch can be run in "Demo Mode" without the use of a software license. In Demo Mode, a RadioPro Dispatch client can connect only to CTI's demo radio system in Cincinnati, Ohio.

1.4 System Considerations

System Planner Template

Use the System Planner Template at the end of this document to record device names, passwords, and IP addresses.

IP Gateway and Control Station Radio Configuration

Before installing the RadioPro Dispatch client, the IP Gateway (s) must be configured using the ICU.exe utility (IP Configuration Utility) and installed on an IP network. In addition, the Control Station(s) must be configured using the manufacturer's configuration software. See the *RadioPro IP Gateway Installation Guide* for more details.

GPS Mapping Support

Note: GPS Mapping is not available in all configurations. Please see *Section 5.5 Feature Availability* on Page *63* for more details.

Mapping of subscriber radios requires the following:
- IP Gateways must have GPS enabled using ICU.exe
- Control Station radios **CANNOT** have GPS or ARS enabled
- Subscriber radios **MUST** have GPS and ARS enabled

Version Match

RadioPro Dispatch clients and IP Gateways must have compatible versions in order to communicate with each other. Compatibility can be ensured when the first two digits of the version match. (The third digit indicates a minor revision, and does not need to match.)

In addition, the license file for a RadioPro Dispatch client must be at the same major revision level. In other words, a RadioPro Dispatch software license key for version 9 is required to run RadioPro Dispatch version 9. (A version 8 license key will not be able to run RadioPro Dispatch version 9.)

Control Station Radio Version

The control station radio connected to the IP Gateway *must at least have the minimum firmware version listed below*.

Control Station Radio	Minimum Version
Motorola MOTOTRBO in Conventional, IPSC, Cap+, or LCP	1.08.0
Motorola MOTOTRBO in Connect Plus mode	2.2.0
Motorola MOTOTRBO Connect Plus Option Board	1.3.0
Kenwood NEXEDGE NX-800	1.23.00

PC Settings for Power and Display

Power Settings
The Power Settings should be adjusted so that the PC does NOT hibernate or sleep. Use the **Power Options** item in the **Control Panel** to make these adjustments.

USB Controller Settings
USB controllers within the Dispatch PC should be configured to disallow power management. Use the **Device Manager** item in the **Control Panel** to make these adjustments. In the **Device Manager** window, open the **Universal Serial Bus controllers** folder. And then for each **USB Root Hub** listed, use the Power Management tab to **disable** "Allow the computer to turn off this device to save power".

Display Properties
The RadioPro Dispatch client has been designed to be used with display monitors with the following display properties:
- Font Size – Normal
- DPI - Normal (96DPI)

Altering the above settings may cause some information for the RadioPro Dispatch client to be displayed improperly.

Touch Screen

RadioPro Dispatch software will interpret touches on a touch screen as general game controller events. If a touch screen is being deployed for this software installation, then **disable** touch parameters in the Windows operating system, usually found in the Control Panel under "**Tablet PC Settings**".

2. INSTALL TIME SERVER

During installation of the IP Gateways, the IP address of a "NTP Server" may have been specified using the ICU (IP Configuration Utility). In order for all IP Gateways to report the same time, and logging at the Dispatch client to have accurate times, the IP Gateways must all reference the same Time Server. This Time Server can be one of the following:

- An existing Time Server on the Local Area Network.
- Public domain Time Server accessed using the Internet.
- Local Time Server installed on a common PC, such as the Dispatch client console PC.

3. RADIOPRO DISPATCH CLIENT INSTALLATION

Prior to installing the RadioPro Dispatch client software, any required IP Gateways should be installed. See the *RadioPro IP Gateway Installation Guide* for additional details.

Step 1. Install Audio and PTT Accessories

Install any required microphones, speakers, headsets, and push-to-talk devices. Allow the Windows operating system to discover these devices and automatically install device drivers before continuing.

See the *RadioPro System Accessories* brochure for recommended accessories.

Step 2. Install RadioPro Dispatch Client Software

Insert the installation USB flash drive into an available USB port. Navigate to and double-click the file named "`\RadioPro Dispatch Software\RadioPro Dispatch.exe`".

The RadioPro Dispatch client must have the **Run as Administrator** parameter enabled as follows.

Windows 10 Professional

a. Right-click on the **RadioPro Dispatch** icon on the desktop, then click **Properties** from the menu.

b. On the **Shortcut** tab, click the **Advanced** button, and then place a check in the box for **Run as administrator**.

Step 3. Start the RadioPro Dispatch Client Software

Double-click the *RadioPro Dispatch* icon on the PC desktop to start the program. The initial (unconfigured) screen may appear similar to this screen capture:

Use the following steps to import a Software License:

1. Insert the RadioPro Dispatch License USB flash drive into an available USB port.

2. Click the **Import New License** button.

3. Choose the License File on the USB flash drive, and then click the **OK** button.
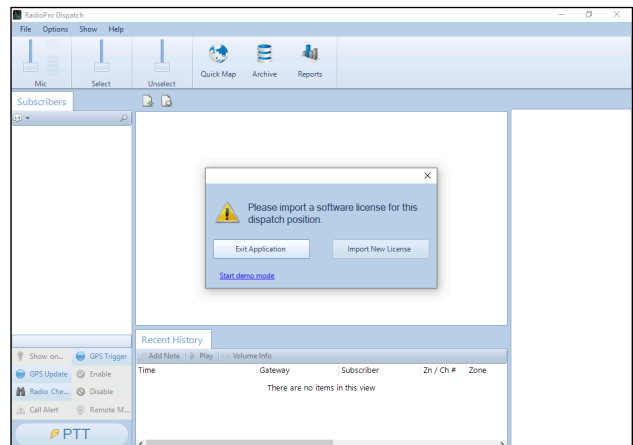
If you receive this error:
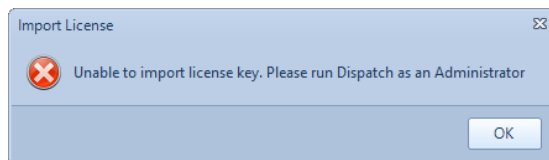
restart dispatch as an administrator and follow steps 1 – 3.

4. CONFIGURATION

4.1 Configuration Overview

Configuring RadioPro Dispatch involves the following steps:

1. **Create an Administrator Password** (Page *17*)
   Create a password that administrators will use to configure RadioPro Dispatch.
2. **Manage IP Gateways** (Page *18*)
   Use the *Manage IP Gateways* window to configure connections to the IP Gateways.
3. **Configure Audio Device Presets** (Page *20*)
   Configure microphones, headsets and speakers for transmit and receive audio.
4. **Choose and arrange Panels to be shown** (Page *27*)
   Choose which panels to show such as *Subscribers*, *Recent History*, *Messages*, *Geo-fence Alerts*, *Telemetry*, and *Missed Calls*
5. **Add Tabs for Voice and GPS Maps** (Page *29*)
   Show and arrange the locations of the dock-able tabs for Voice channels and GPS Maps.
6. **Add and configure Radio Controllers for Voice functions** (Page *29*)
   Add radio controllers to voice tabs for each Talk Group or channel to be accessed.
7. **Add and configure Subscribers and Subscriber Groups** (Page *31*)
   Add subscribers to groups in the subscriber tab.
8. **Configure other Dispatch options** (Page *33*)
   Select options that will customize the way in which Voice and GPS tabs function.

Configuration can be performed only if the program is in *Edit* mode. To change to *Edit* mode, click on the **File** menu, and then click **Edit**. (If **Lock** is displayed in the menu, then the RadioPro Dispatch client is already in *Edit* mode.)

4.2 Example Configuration

RadioPro Dispatch may be configured in many different ways. An example configuration is shown below.
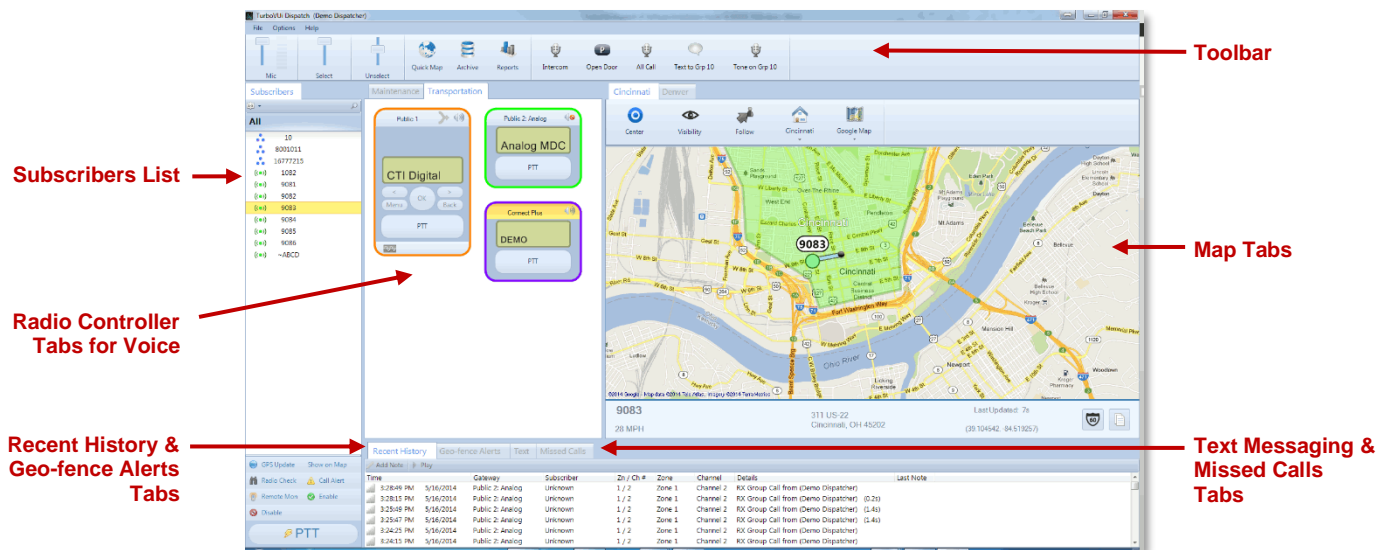
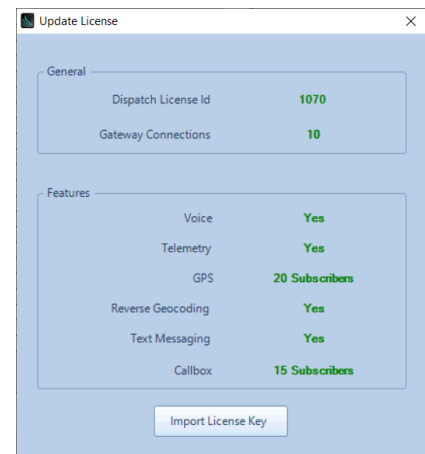## 4.3 Configuration using Cloned Settings

If a Dispatch console PC has already been configured, and it is desired to clone that configuration to additional console PCs, then use the Clone function using the following steps.

On the already-configured console PC:
1. Change RadioPro Dispatch to *Edit* mode by clicking on the **File** menu, and then choose **Edit**.
2. From the **File** menu, choose **Clone Settings**, and then then choose a file name and storage location. A file will be saved with an extension of "**.**trbodat".
3. From the **File** menu, choose **Lock** to return RadioPro Dispatch to the *Run* mode.
4. Copy the file saved above to a USB flash drive or network storage location.

On the unconfigured console PC:
5. Change RadioPro Dispatch to *Edit* mode by clicking on the **File** menu, and then choose **Edit**.
6. From the **File** menu, choose **Import Cloned Settings**, and then then choose a file name and storage location selected in Step 4 above.
7. Import the License File for this Dispatch console.
    a. While in *Edit* mode, click the **Options** menu item, then click **Update License** to display the **Update License** window shown at right.
    b. Insert the License Key USB into an available USB port.
    c. Click the **Import** button, and then locate and select the License Key file on mounted USB drive. The **Update License** window should now reflect the licensing allowed for this installation, similar to the screen-capture at right.
    d. Close the **Update License** window.
8. From the **File** menu, choose **Lock** to return RadioPro Dispatch to the *Run* mode.

## 4.4 Configuration without using Cloned Settings

Step 1. Create an Administrator Password

A person using the RadioPro Dispatch client can be either a *User* or an *Administrator*. An *Administrator* will be allowed to make changes to RadioPro Dispatch using a password. A *User* will be prevented from making changes to the configuration.

An *Administrator* password can be created by using the following steps:

1. If not already in *Edit* mode, change to *Edit* mode by clicking on the **File** menu, and then choose **Edit**.

2. From the **File** menu, click **Save As**, and then choose a file storage location such as:
    ```
    c:\Program Files (x86)\CTI Products\RadioPro
    ```

    After choosing a filename and storage location for this configuration file, the following **Password Protect File** window will be displayed.
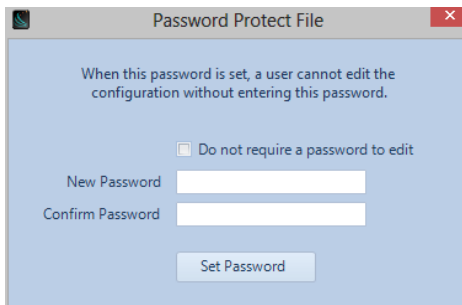
3. Enter a password into both the **New Password** and **Confirm Password** boxes, and then click the **Set Password** button.

Step 2. Manage IP Gateways

While in *Edit* mode, configure the connections to IP Gateways using the following steps:

1. Click on the **Options** menu, then click **Manage IP Gateways** to display the following window:
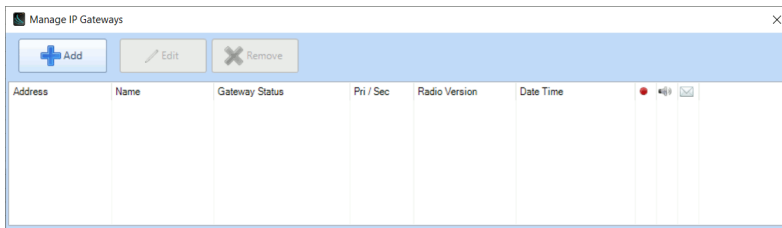
2. Click the [Add] button to display the following **Add Gateway** window:

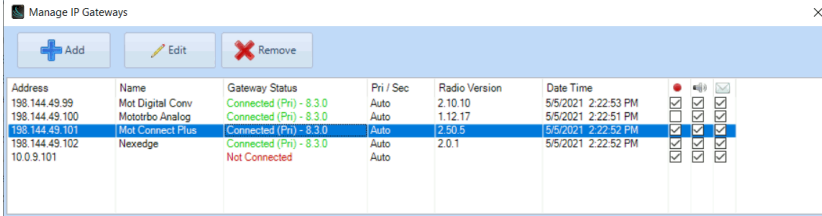3. In the **Gateway Address** field, enter the IP Address for the RadioPro IP Gateway.
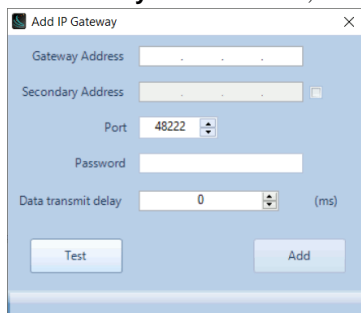
4. If there is a failover gateway, check the box next to the **Secondary Address** and enter the IP Address for the backup gateway.

    With a **Secondary Address** the right-click "Pri / Sec" menu for this gateway will have the following selections:
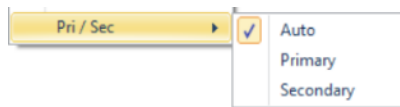
    o **Auto** – This is the default failover behavior where the primary gateway is used unless it is down, then the secondary will be used until the primary is available again.

    o **Primary** – This selection forces only the primary gateway to be used.

    o **Secondary** – This selection forces only the secondary gateway to be used.

5. Modify the port of the gateway by changing the value in the **Port** field.

    o The default port used by a RadioPro IP Gateway is TCP port 48222. If needed, the port number of an IP Gateway can be changed by using the ICU.exe utility.

    o If the IP Gateway is connected to a different IP LAN subnet than the RadioPro Dispatch client PC, then enter the external IP address of the firewall or router that is protecting that subnet. In this case, a port-forwarding rule is needed to be programmed into the firewall or router for each IP Gateway.
    See the *RadioPro IP Gateway Installation Guide* for additional details.

6. Enter the **Password** for the IP Gateway.

7. Click the **Test** button to determine if the RadioPro IP Gateway is accessible using the IP Network. "Connection Successful" will be displayed if the connection succeeded.

8. Finally, click the **Add** button to add this RadioPro IP Gateway to the device list as shown in the following:

    Table headings in the above window are defined as follows:

Address

IP Address assigned to IP Gateway, and Port Number

Name

Name assigned to IP Gateway

Gateway Status

Indicates **Connected** and firmware version of IP Gateway, or **Not Connected**

Pri / Sec

Indicates if the gateway is set for **Auto**, **Primary**, or **Secondary**.

Radio Version

Indicates firmware version of Radio if connected, or **Not Connected**

Date / Time

Date and Time being used by IP Gateway

Record Option

Checking this option allows logging of audio for this IP Gateway to the database

Audio Option

Checking this option allows audio to be heard for this IP Gateway

Text Option

Checking this option allows text messaging for this IP Gateway

9.   Repeat Steps 2 through 8 for each RadioPro IP Gateway in the system.

10. To remove a RadioPro IP Gateway from the device list, select the device, and then click the ![Remove] button.

11. To edit the IP Address or Password for an IP Gateway, first select the IP Gateway from the list, and then click the ![Edit] button.

Step 3. Configure Audio Device Presets

While in *Edit* mode, options are available that will customize the way in which audio will be transmitted and received. Click on the **Options** menu, click **Audio Presets,** and then click **Configure** to display the following window.
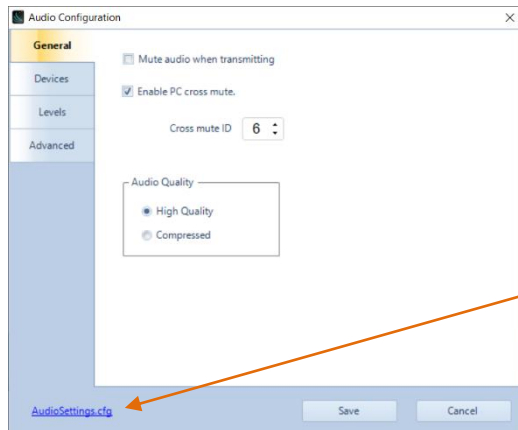
> Note: The configuration file for Audio Settings can be located and viewed by clicking on the file name "AudioSettings.cfg"

Click the [Save] *button to save all Audio Configuration settings.*

General tab

Use this tab to configure audio parameters such as *Muting* and *Audio Quality*.

Mute Audio When Transmitting
> Mutes all receiving audio while the dispatch is transmitting. This option will prevent audio feedback while the dispatcher is transmitting.

Enable PC Cross Mute
> Select this option to mute audio from adjacent PCs. Adjacent PCs should have the **SAME Cross Mute ID** selected. Dispatch positions with the same cross mute ID will not be able to hear eachother. This is also referred to as "Audio Cross Muting" .

Audio Quality
> *Compressed Mode* (2.2kBytes/s per client user and Talk Group) should be used when either:
>> a RadioPro client is connected to the IP Gateway(s) using a WAN such as the Internet, or there is a concern that "High Quality" mode will use too much bandwidth.
>
> *High Quality Mode* (22kBytes/s per client and Talk Group) should be used when:
>> Neither of the conditions listed above for "Compressed Mode" exist, and
>>
>> the additional 10% improvement in audio quality is needed.

Click the [Save] *button to save all Audio Configuration settings.*

Devices tab

Use this tab to add **Audio Presets** to the **Options** menu. Multiple **Audio Presets** can be entered to accommodate several different audio configurations using different microphones, headsets, and desk speakers.
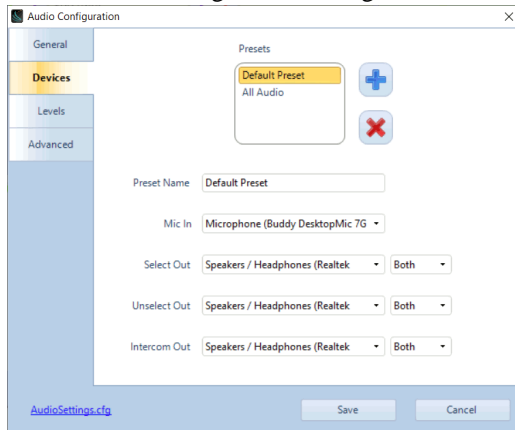
Presets

   This section lists the current audio device configurations. Use the ➕ and ❌ buttons to add or delete an audio preset from the **Options** menu.

Preset Name

   Edit this name as it should appear in the **Options** menu.

Mic In

   From the drop-down list, select a microphone.

Select Out

   From the drop-down list, select a device for *Select Audio* playback, as well as *Both*, *Left*, or *Right* speaker.

Unselect Out

   From the drop-down list, select a device for *Unselect Audio* playback, as well as *Both*, *Left*, or *Right* speaker.

Intercom Out

   From the drop-down list, select a device for audio from other RadioPro Dispatch clients, as well as **Both**, **Left**, or **Right** speaker.

Click the ⌗ Save *button to save all Audio Configuration settings.*

Levels tab

Use this tab to set the initial audio volume levels at program start-up. Mic, Select, and Unselect volumes can be changed by the dispatcher while the application is running.
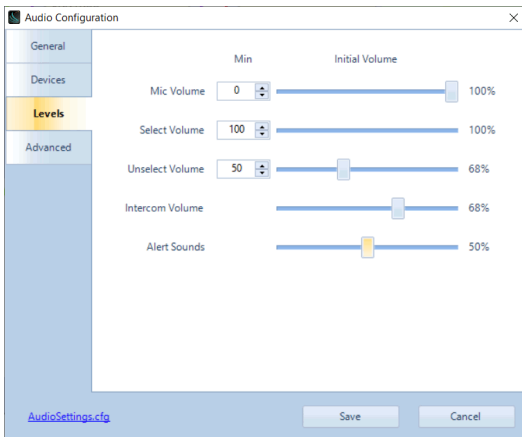
Mic Volume

> Select the initial microphone volume level. The initial setting for this parameter should be 100%. The number in the min column allows you to set the minimum volume percent. If audio heard on portable and mobile radios is not loud enough, adjust the **Rear Mic Gain** settings in the Control Station radios connected to RadioPro IP Gateways. See the *RadioPro IP Gateway Installation Guide* for specific radio model programming guides.

Select Volume

> Select the initial receive volume level for *Selected* talk groups. The initial setting for this parameter should be 100%. The number in the min column allows you to set the minimum volume percent.

Unselect Volume

> Select the initial receive volume level for *Unselected* talk groups. The initial setting for this parameter should be 60%. The number in the min column allows you to set the minimum volume percent.

Intercom Volume

> Select the receive volume level from other RadioPro Dispatch clients. The initial setting for this parameter should be 60%.

Alert Sounds

> Select the volume level for Alert Sounds, such as "Talk-Permit" and "Channel-Busy". The initial setting for this parameter should be 30%.

*Click the* [Save] *button to save all Audio Configuration settings.*

Advanced tab

Use the advanced tab to set rules for duplicate PTT ID audio and to control Intercom audio levels.
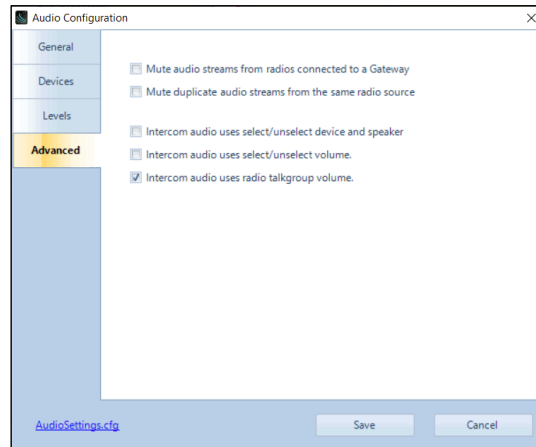
Mute audio streams from radios connected to a gateway

Select this option if audio transmissions are being received by another radio connected to the RadioPro Dispatch client. This feature works by comparing the incoming audio PTT-ID with ID's of the radios connected to the gateways. This feature does not work with analog calls where the PTT-ID is not available. This is also referred to as "RF Cross Muting".

Mute audio streams from radios connected to a gateway
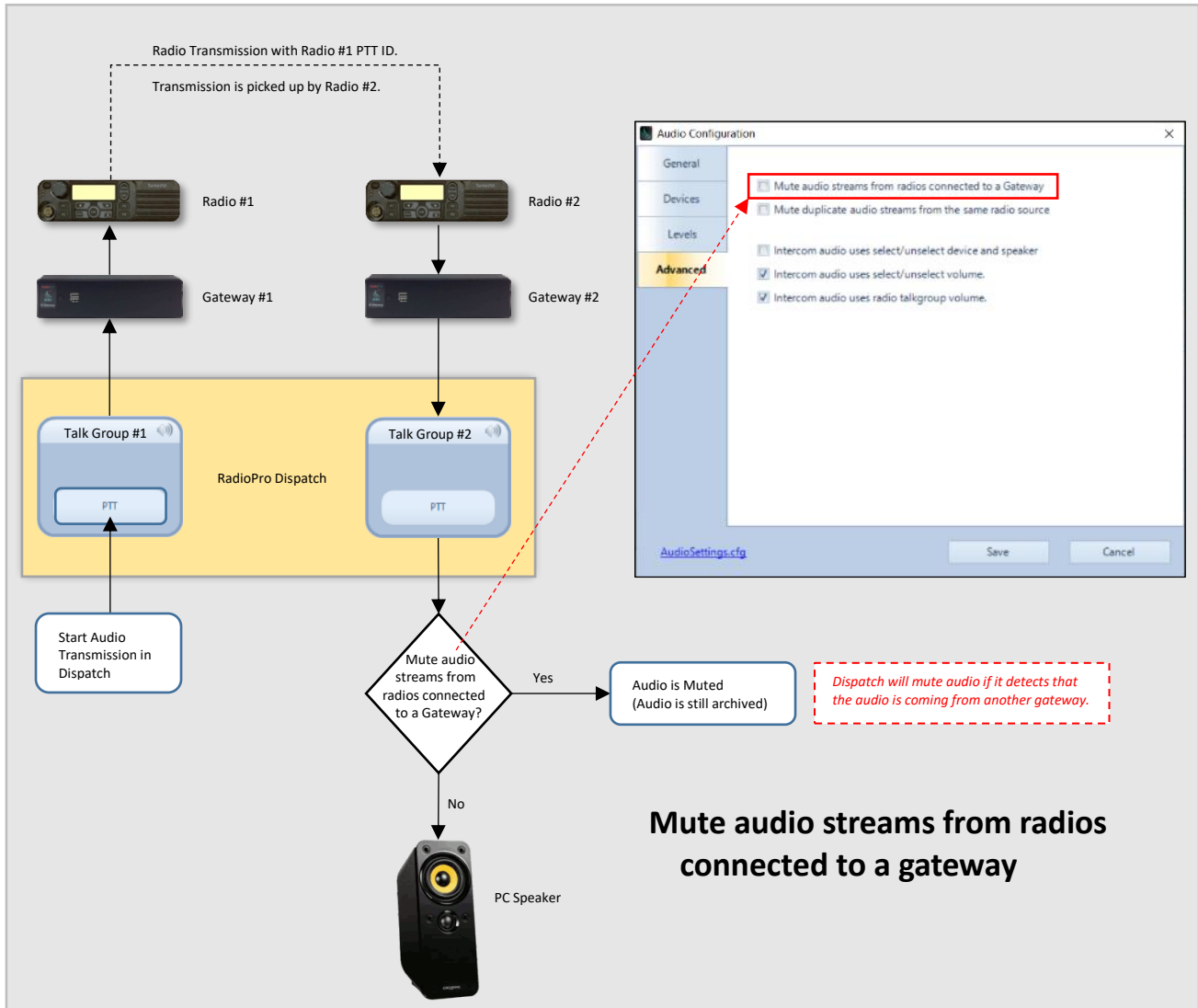
Mute duplicate audio streams from the same radio source

If two audio streams from the same radio source occur at the same time, this option will playback the first audio stream and mute the second audio stream. This feature works by comparing the PTT-ID's of the incoming radio traffic. If two receiving streams have the same PTT-ID, then one will be muted to prevent echoing.
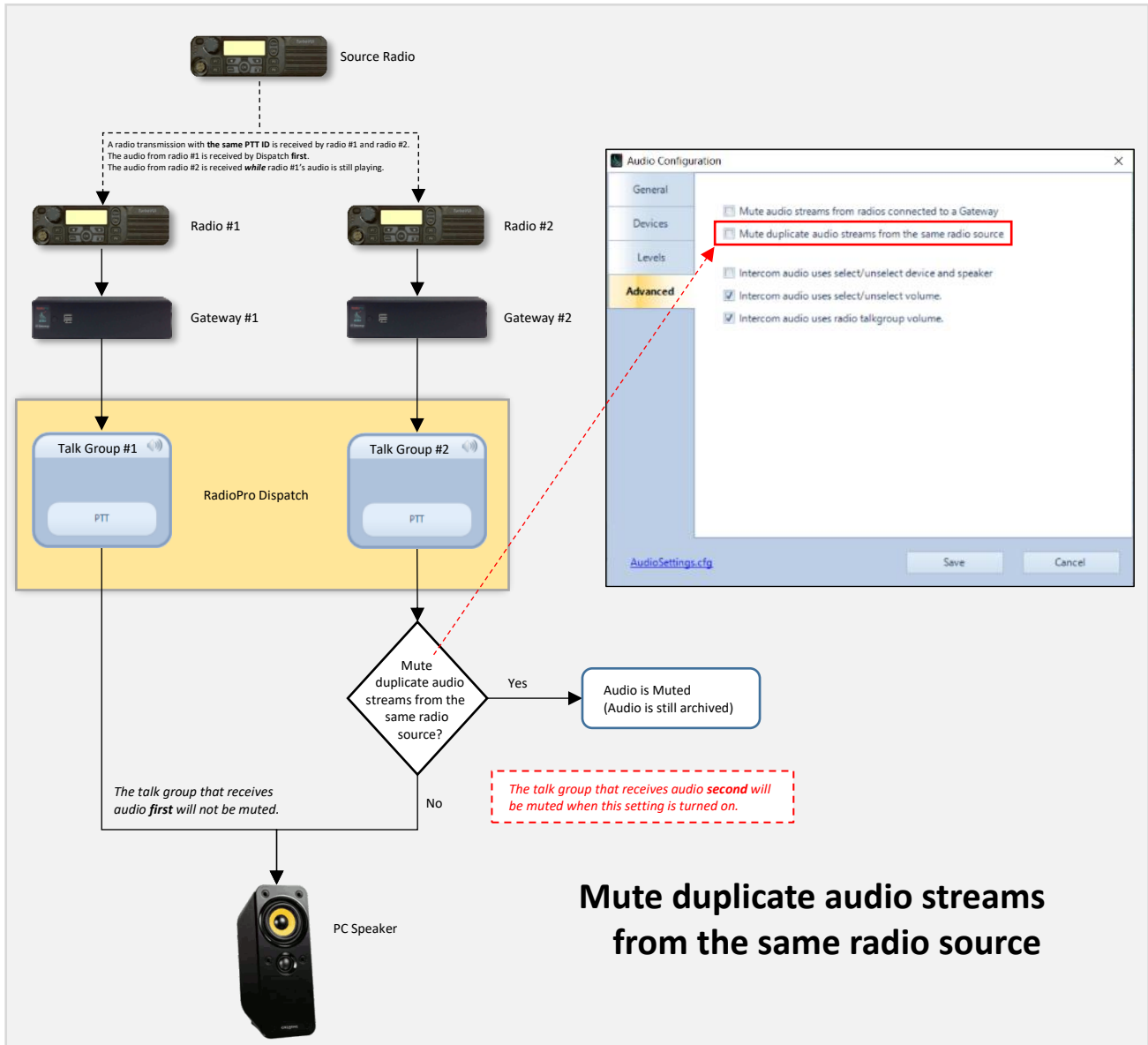
Intercom Audio uses select/unselect device and speaker

Select this option to direct received intercom audio to same audio devices configured for Select and Unselect volume. If this option is not enabled, then received Intercom Audio will be directed to device chosen for the Intercom Out parameter located in the Devices tab.

Intercom Audio uses select/unselect volume

Select this option to modify the volume level set for the Intercom Volume parameter located in the Devices tab based on whether the receiving radio is Selected or Unselected.

Intercom Audio uses radio talk group volume

Select this option to modify the volume level set for the Intercom Volume parameter located in the Devices tab based on the volume level set in the Radio Controller for a particular talk group.
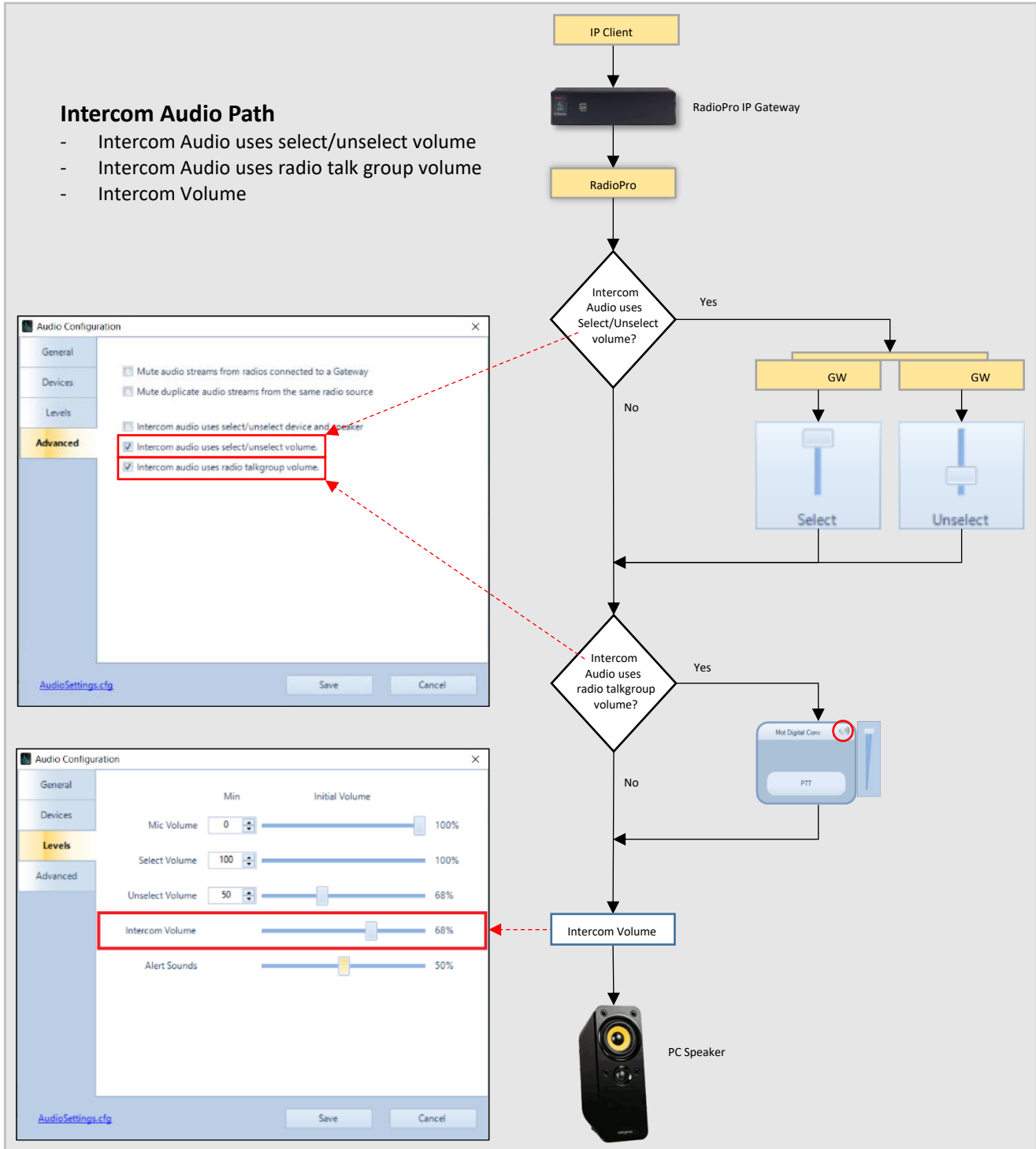
Step 4. Choose and Arrange Panels

The Main Window can be customized to show various dock-able tabbed Panels. While in *Edit* mode, use the **Show** menu to choose among the following Panels to be displayed on the Main Window.

- *Subscribers* – A list of subscriber radio IDs and Alias Names, along with function buttons for **Private Call**, **GPS Locate**, **Radio Check**, **Call Alert**, **Remote Monitor**, **Enable** (radio), and **Disable** (radio)
- *Recent History* – A list of the most recent radio events, including sent and received audio, sent and received text messages, call alerts, and emergencies.
- *Messages* – A list of outgoing and incoming text messages, along with a text box and **Send** button for initiating messages.
- *Geo-fence Alerts* – A list of radio subscriber units that are currently meeting a Geo-fence condition.
- *Telemetry* – A list of I/O points in vehicles and facilities that can be monitored and controlled
- *Missed Calls* – A list of incoming private calls that have not been responded to from the Dispatcher with a return private call.
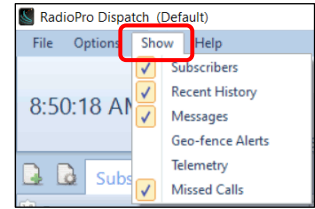
When enabled with a check mark from the **Show** menu, a Panel will appear in its default location until moved to a different location.

Arranging Panels

While in *Edit* mode, each panel may be located to another position by using the following steps:

1. Click and drag a Panel using its tab area. While the Panel is being moved, *Tab Anchor Points* will be displayed as shown below.
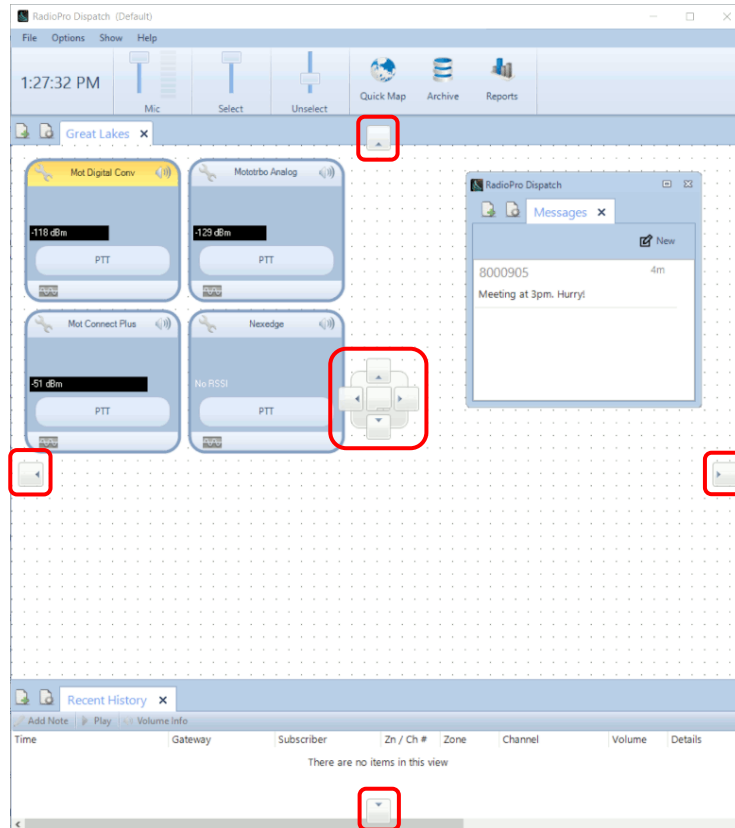

2. To dock the Panel at a pre-defined position, drop the Panel onto any of the *Panel Anchor Points* displayed. Options include left-side, right-side, top, bottom, and as a member of a set of panels. To make the panel a member of a set of panels, drop the tab onto the center of the *Panel Anchor Point*.

3. To un-dock a Panel, so that it floats to a location chosen by the User, drop the Panel onto an area of the screen that does not have a *Panel Anchor Point*.

Step 5. Add Tabs for Voice and GPS Maps

Depending on the license purchased, it is possible to add one or more **Voice** tabs and/or one or more **GPS Map** tabs to the Main window. To add a tab, use the following steps:

a. Click the ![button] button to display the **New Tab Page** window.

b. In the **New Tab Page** window, enter the **Page Name**, choose the **Page Type**, and then click the **Add** button.
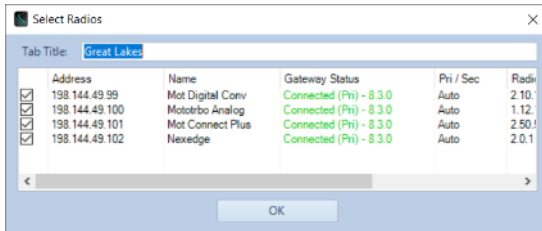
Repeat the steps listed above for each tab needed.
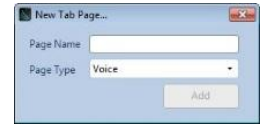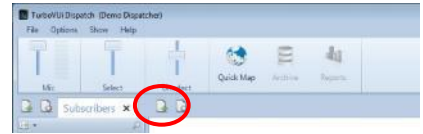
Step 6. Add and Configure Radio Controllers for Voice functions

While in *Edit* mode, add radio controllers to a tabbed page using the following steps:

a. Select a tab, then click the ![tool] tool located next to the tab to display the **Select Radios** window shown:

b. Place a check mark next to all devices that should be displayed on the active **Radio Controllers Tab**, then click the **OK** button. The selected Radio Controllers will be displayed on the active **Radio Controllers Tab**.

Each Radio Controller on a tabbed page may be customized using the remaining steps:

c. Click the ![button] button on the title bar of a Radio Controller to display the **Options** window:

d. Optionally, click the **Outline Color** ![green] button to select a border color for this Radio Controller. Click the ![Default] button to make the selected color the default.

e. **Enable** an option for **Title label** to display either the **Gateway Name** or **Channel Name** in the header portion of the Radio Controller.

f. Choose if History Items should be displayed for this Radio Controller. If a number greater than '0' is chosen, then incoming voice messages for this Radio Controller will be shown in the lower portion of the window.

g. The **Min Volume** can be set to a number between 0 and 100. A **Min Volume** set to 10 will not allow the volume slider to go below 10%.
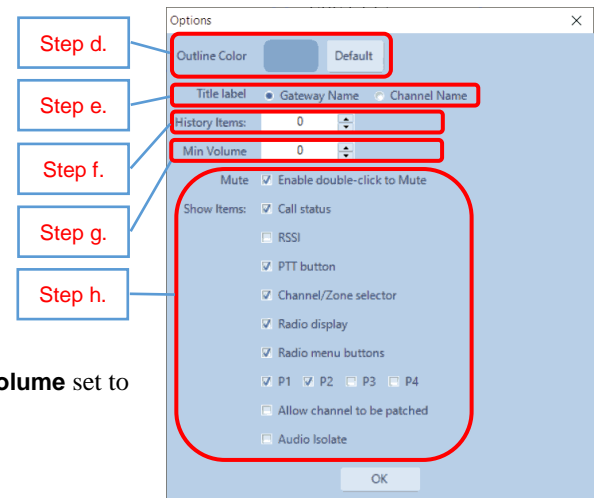
h. Click the check boxes in this window to **enable** other needed features.

1) *Audio Isolate*: **Enable** this option to make an audio isolate button available for this Radio Controller. When the audio isolate button is pressed, all Radio Controllers are muted except that Radio Controller and any other Radio Controllers with audio isolate buttons enabled.

2) *Enable double-click to Mute*: When this option in **Enabled**, double-clicking the volume button will mute the volume.

3) *Allow channel to be patched*: **Enable** this option to allow the Dispatcher to patch this Talk Group (channel) to another Talk Group. When this option is enabled, the **Patch** button will be added to this Radio Controller. When the Dispatcher patches two talk groups together using this button, transmit and receive voice traffic will be shared by both. If this option is enabled for Radio Controllers on other Dispatch clients, patch status will be displayed on these other clients. Only a single patch is available, and a maximum of 3 Talk Groups may be patched.

4) *Call status*: **Enable** this option to display caller ID and status symbols for "transmitting" and "receiving".

5) *RSSI*: **Enable** this option to continuously show the RSSI level reported by the control station radio (if available). RSSI levels are displayed in decibel-milliwatts (dBm).

6) *Radio Display*: **Enable** this option to duplicate the display from the Control Station radio.

7) *Radio menu buttons*: **Enable** this option to display menu buttons, allowing the Dispatcher to access the menu items of the Control Station radio.

8) *PTT button*: **Enable** this option to display the PTT button.

9) *History items*: **Enable** this option by selecting a number greater than 0. When enabled, incoming calls will be listed for this channel.

10) *Channel/Zone selector*: **Enable** this option to allow the Dispatcher to change zones and channels from this Radio Controller.

11) *P buttons*: **Enable** one or more of these to display the programmable buttons on the Control Station radio.
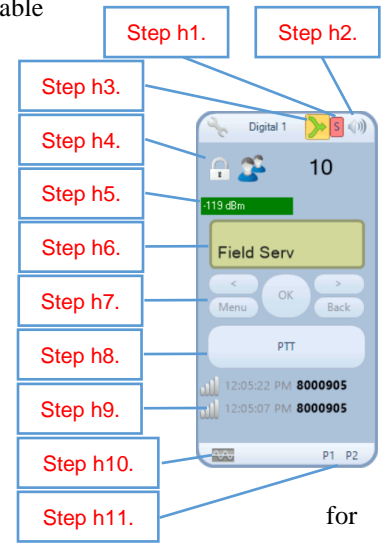
i. Click the **OK** button to save the Radio Controller settings.

j. The Radio Controller can be resized by dragging its lower right-hand corner to a new position as follows:

1) Hover the mouse over the lower right-hand corner of a Radio Controller window.
The cursor will change to a double-arrow resizing symbol.

2) Click the mouse and drag the corner to a new position.
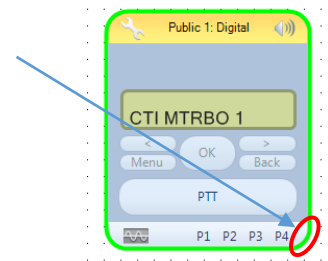
Editing Tab Features

To change the Radio Controllers that appear on a tab, or to rename a tab, click the button.

Step 7. Add and configure Subscribers and Subscriber Groups

This step may not be necessary if aliases have already been set up in your gateway. The ICU utility that manages the gateway settings has an Aliases tab where radio id's can be given names more appropriate for your organizations use. The Dispatch software will use this set of Aliases.

In the Subscribers tab, an "All" group is automatically added for you with radio aliases defined in the ICU utility Radio Aliases tab. The "All" group will also show any new radio aliases that have not yet been defined in the ICU Radio Aliases tab or in the Dispatch Subscriber Contacts window. These new radio aliases might be assets you add to your radio system in the future. To remove the "All" group and only show pre-defined groups from the Subscriber Contacts window, see the *Show "All" Subscriber Group* section on page 35*35*.
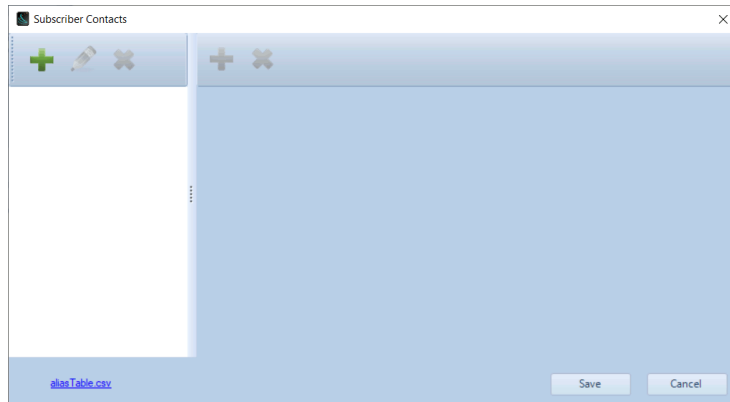
Add S**ubscribers** to the **Subscribers tab** as follows:

> Click **Options** -> **Contacts**.
>
> -or-
>
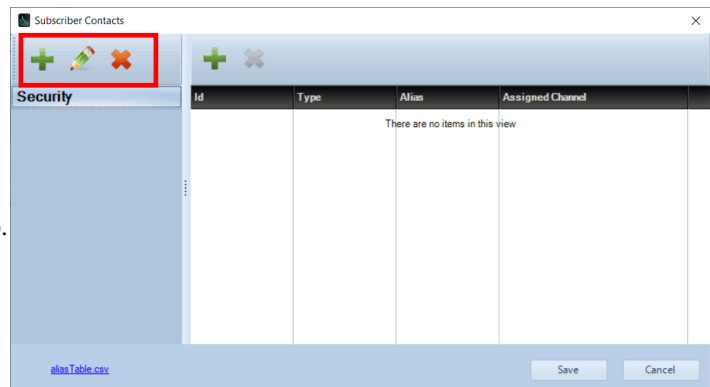> While in *Edit* mode, click the "Edit tab" button next to the **Subscribers** tab.
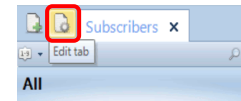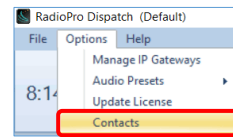
The **Subscriber Contacts** window with no subscribers or groups will look like this:

Add Subscriber Groups

- ![plus icon]   Creates a new **Subscriber Group**.

- ![pencil icon]   Renames the selected **Subscriber Group**.

- ![delete icon]   Deletes the selected **Subscriber Group**.

Add and Configure Subscribers
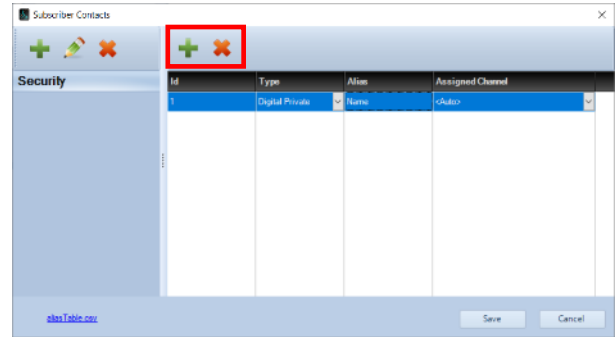
- Creates a new **Subscriber** within the selected **Subscriber Group**.

- Deletes the selected **Subscriber**.

Each **Subscriber** has the following settings:

ID: The id of the subscriber radio.

Type: The radio type can be a **Group** type or **Private** type.

*Alias*: The name to display in place of the radio id.

Assigned Channel: The assigned channel can be one of the following:

    <Auto>: With "Auto" selected, if this radio id comes from any radio controller, this alias will be used.

    <Specific radio controller>: If a specific radio controller is selected, this alias will only be used if the radio id is coming from that radio controller.

- Press the [Save] button to save the changes and close the window.

This example **Subscriber Contacts** window adds a "Security" section to the **Subscribers tab** as follows:
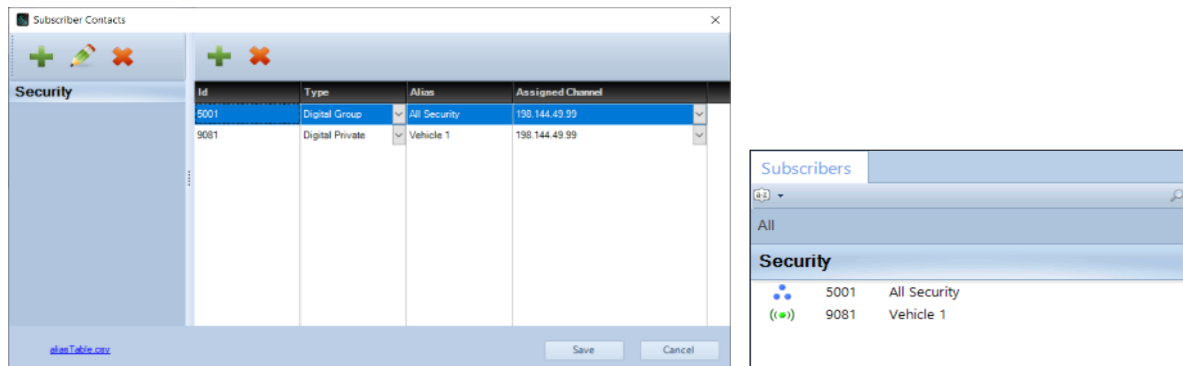

The **Subscriber Contacts** are stored in the aliasTable.csv file.

For more information see the *Alias Table File* in the Appendix on page 54.

Step 8. Configure other Dispatch Options

While in *Edit* mode, options are available to customize the way in which RadioPro Dispatch operates. Click on the **Options** menu, and then click **Dispatch Settings** to display the window shown. Configuration options are organized into various folders.
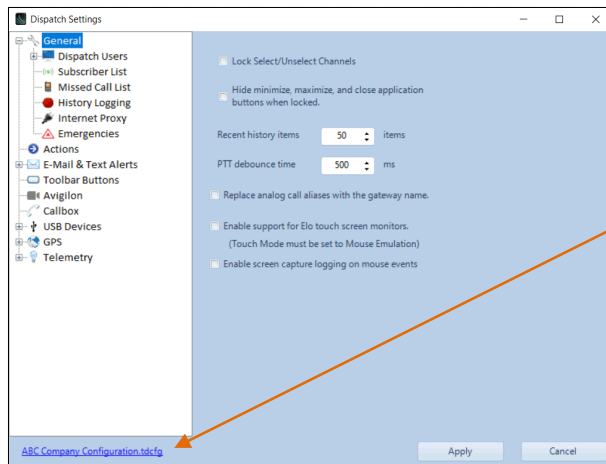
Note: The configuration file for Dispatch Settings can be located and viewed by clicking on the file name ending with "tdcfg"

Note: Following changes to any parameter, click the [Apply] *button to save the changes.*

General Folder

The **General** folder contains configuration options for *Dispatch Users*, *Subscriber List*, *Missed Call List*, *History Logging*, *Internet Proxy*, *Emergencies* and some other items. When the **General** folder is selected, the above window will be displayed.

Lock Select/Unselect Channels
> Checking this box will lock *Selected* radio controllers (channels) on the *Radio Controllers* from being unselected.

Hide Minimize, Maximize, and Close Application Buttons when Locked
> Checking this box will remove these buttons from the **Main Window** when in *Lock* mode.

Recent History Items
> Choose the number of items to be displayed in the **Recent History tab**, from 1 to 500.

PTT Debounce Time
> Choose a debounce time (in msec) for PTT buttons and footswitches. The range of values for this setting is 1 to 9999. A typical debounce time is 200 msec.

Replace Analog Call Aliases with the Gateway Name
> In analog radio systems, it may be more useful to display the name assigned to the IP Gateway.

Enable Support for Elo Touch Screen Monitors
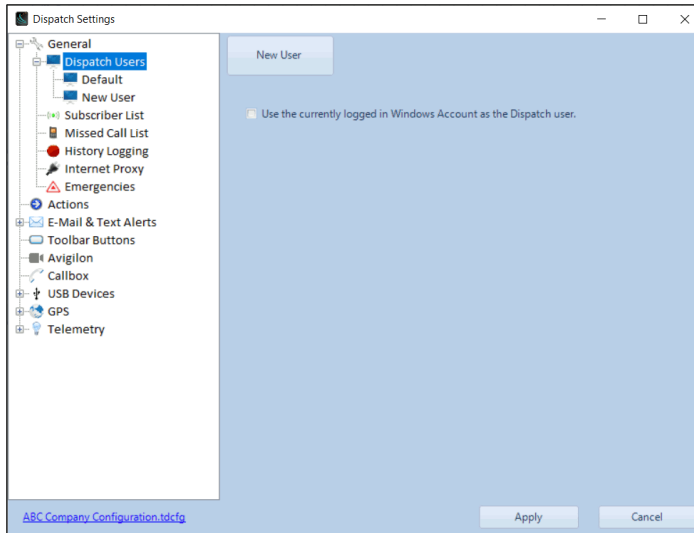> This feature is used to change the behavior of touch events to support Elo touch screens.

Enable Screen Capture Logging On Mouse Events
> This feature is used to debug mouse and touchscreen issues.

Click the [Apply] *button to save all Dispatch Settings.*

Dispatch Users Sub-folder

When the **Dispatch Users** sub-folder is selected, the following window will be displayed.

> ### New, Delete, and Rename User Buttons
> Use these buttons to add Dispatch User Names, Delete Users, or Rename Users. These names will be used to identify the "Src User" listed in the **Recent History** tab.
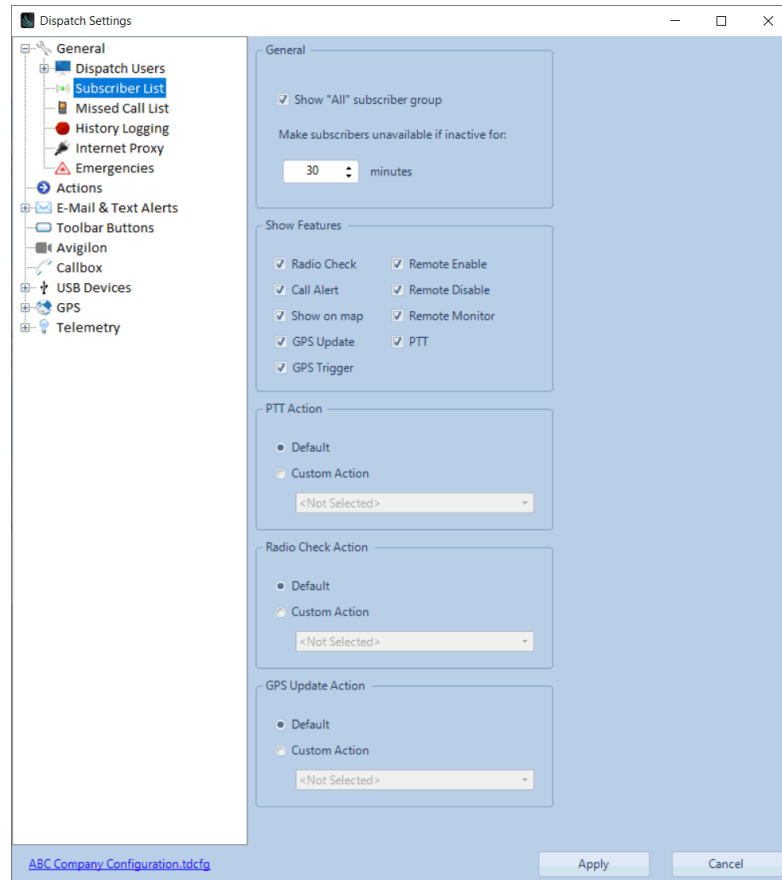>
> ### Use the Currently Logged in Windows Account as the Dispatch user
> This feature will login the Dispatcher using the Windows login credentials.

Click the Apply *button to save all Dispatch Settings.*

Subscriber List Sub-folder

When the **Subscriber List** sub-folder is selected, the following window will be displayed.

> **General**
>
>> **Show "All" Subscriber Group**
>>> Uncheck this box to remove the "All" group from the **Subscribers tab**. With the "All" group removed, the list of subscribers can be limited only to predefined groups. Groups can be set up in the **Subscriber Contact** window. See *Step 7. Add and configure Subscribers and Subscriber Groups* on page 31.
>>
>> **Make Subscribers Unavailable if Inactive for:**
>>> A subscriber will be shown as "Unavailable" in the **Subscribers tab** when this time period of inactivity has expired.

Show Features

Choose the features that should be shown in the **Subscribers tab**. These features are described in more detail in the *RadioPro Dispatch User Guide*.

- **Radio Check** determines if a radio is accessible.

- **Call Alert** activates the alert tone on a subscriber radio.

- **Show on map** opens a new map to display the location of the subscriber radio

- **GPS Update** forces a single GPS Trigger.

- **GPS Trigger** is a feature that is useful in Capacity Max systems where the Dispatcher is viewing radio locations based on GPS. This button should be used once for each subscriber radio that is being tracked. This will force a GPS Trigger command to the subscriber radio, so that it reports its GPS position periodically. The time period is determined by a setting in the **GPS** tab of ICU.exe. For more information, see "Minimum Poll Rate" in the *RadioPro IP Gateway Installation Guide*.

- **Remote Disable** temporarily disables a remote radio.

- **Remote Enable** re-enables a previously disabled radio.

- **Remote Monitor** is used to remotely key-up a subscriber radio.

- The **PTT** checkbox can be used to remove the PTT button from the Subscribers tab.
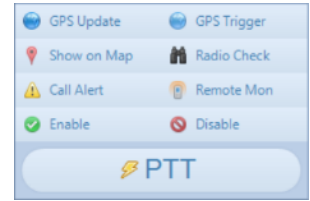
PTT Action

By default, The PTT button in the **Subscriber tab** is used to make private or group calls to the chosen Subscriber.

The PTT button can be configured to use an "*Audio Call*" **Custom Action**. After creating the custom action, it can be selected in the dropdown. See *Actions Folder* on page 42.

Radio Check Action

By default, The Radio Check button in the **Subscriber tab** is used to send a message to a subscriber radio requesting it's current status.

The Radio Check button can be configured to use a "*Radio Check*" **Custom Action**. After creating the custom action, it can be selected in the dropdown. See *Actions Folder* on page 42.

GPS Update Action

By default, The GPS Update button in the **Subscriber tab** is used to send a message to a subscriber radio requesting for that radio to send it's last GPS position.

The GPS Update button can be configured to use a "*GPS Update*" **Custom Action**. After creating the custom action, it can be selected in the dropdown. See *Actions Folder* on page 42.

Click the Apply *button to save all Dispatch Settings.*

Missed Call List Sub-folder

When the **Missed Call List** sub-folder is selected, the following window will be displayed.
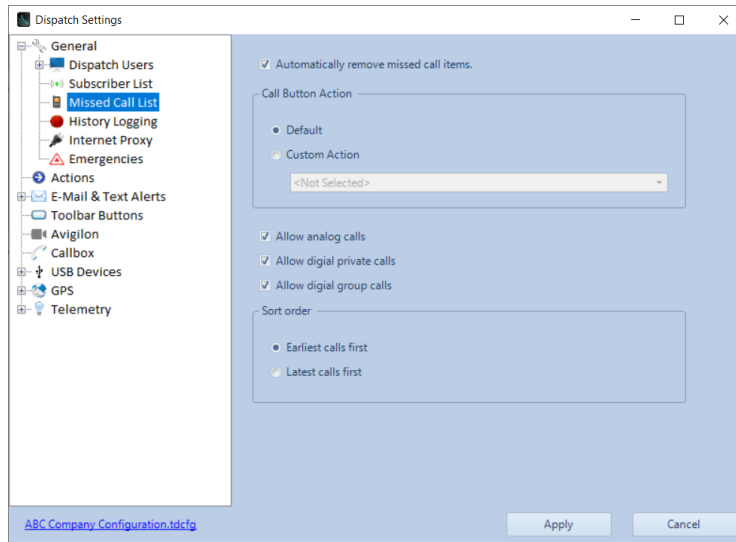
Automatically remove missed call items

When this box is checked, an item in the missed call panel will be cleared after the dispatcher responds to that subscriber.

Call Button Action

By default, The PTT button in the **Missed Calls tab** is used to make a private call to the chosen subscriber.

The PTT button can be configured to use an "*Audio Call*" **Custom Action**. After creating the custom action, it can be selected in the dropdown. See Actions Folder on page 42.

Allow Analog Calls

With this box unchecked, analog calls will not show in the **Missed Calls tab**.

Allow Digital Private Calls

With this box unchecked, digital private calls will not show in the **Missed Calls tab**.

Allow Digital Group Calls

With this box unchecked, digital group calls and all-calls will not populate the **Missed Calls tab**.
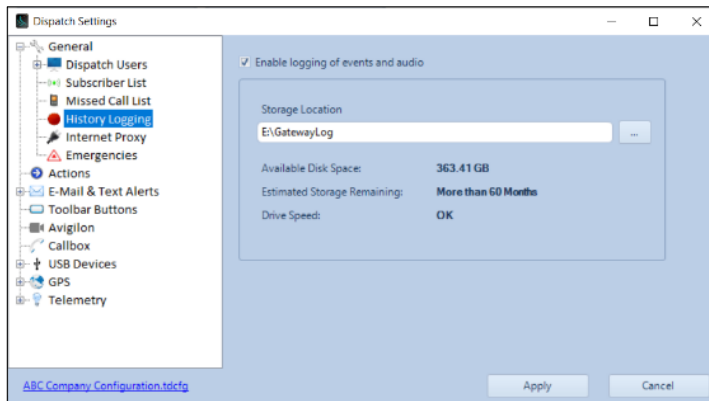
Sort Order

- *Earliest Calls First*: New calls will be added at the end of the list.
- *Latest Calls First*: New calls will be added at the top of the list.

Click the [Apply] *button to save all Dispatch Settings.*

History Logging Sub-folder

When the **History Logging** sub-folder is selected, the following window will be displayed.


Enable Logging of events and audio

Checking this box will **enable** logging of audio files and radio events to the database.

Storage Location

Use the [...] button to select a storage location for logging audio files and radio events. This must be a *local* internal or external hard disk or SSD, and must be a different disk partition than the one used for the Operating System of the PC.

After choosing a storage location, the "measuring disk speed…" window is displayed. A test will be performed on the target storage location to determine if the device access speed is sufficient. If the drive speed is too low, the following warning will be displayed.

⚠ This drive is slow. Selecting a faster drive is recommended.
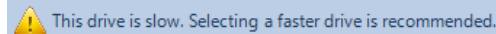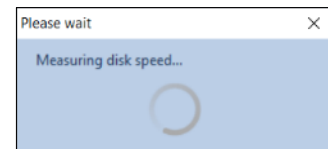
If this storage location has never been used as a RadioPro storage location, you will see this *Create New Database* window. Click the [OK] button to initialize this drive and folder location for first time use.
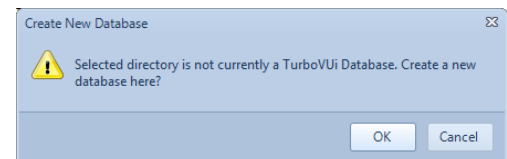
Available Disk Space

If Logging is enabled above, the available disk space is listed.

Estimated Storage Remaining

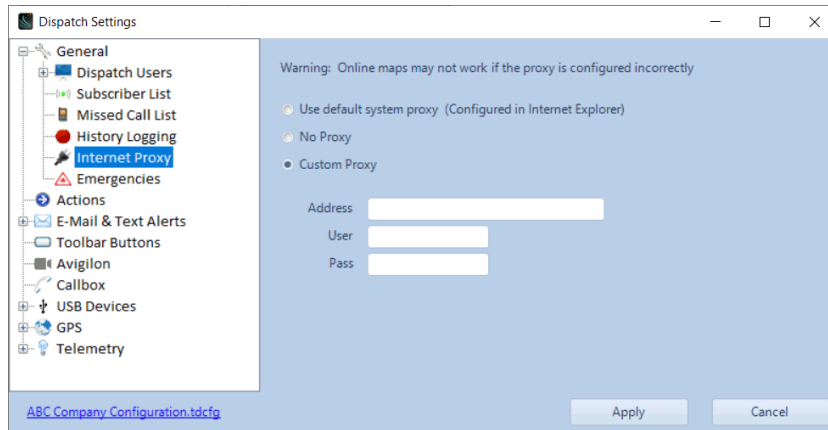If Logging is enabled above, the estimated time for storing files is listed.

Drive Speed

If Logging is enabled above, an evaluation of the drive speed will indicate **OK** if satisfactory for logging.

Click the [Apply] *button to save all Dispatch Settings.*

Internet Proxy Sub-folder

When the **Internet Proxy** sub-folder is selected, the following window will be displayed.

This window is used to define Custom Proxy settings when the following combination of requirements exist:

- The Local Area Network uses an Internet Proxy, and
- GPS mapping using an available Internet mapping service

Click the Apply *button to save all Dispatch Settings.*

Emergencies Sub-folder

When the **Emergencies** sub-folder is selected, the following window will be displayed.
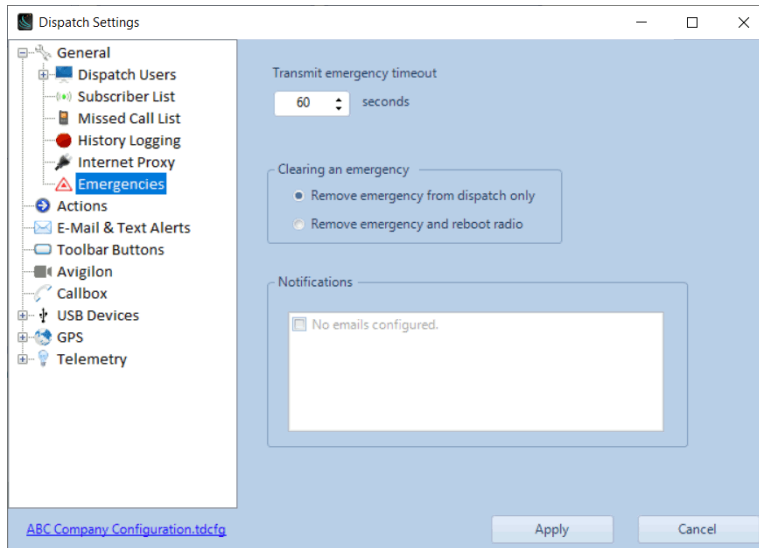
Transmit Emergency Timeout
        Use this to set the emergency timeout in seconds.

Clearing An Emergency
        When an emergency is cleared, one of the following can be selected:

- *Remove emergency from dispatch only*: The radio with the emergency will NOT be rebooted.
- *Remove emergency and reboot radio*: The radio with the emergency will be rebooted.

Notifications
        Use this section to choose the **E-Mail and Text Alerts** groups that should receive a notification when an Emergency is transmitted from a subscriber radio. For more information see *E-Mail & Text Alerts folder* on page 41

Click the Apply *button to save all Dispatch Settings.*

E-Mail & Text Alerts folder

Geo-fence violations and Emergency conditions may be sent via email or SMS (text messaging) to any device that can receive these messages. Use the **E-Mail & Text Alerts** folder to configure these messages as follows:

1. Select the **E-Mail & Text Alerts** folder to display the window shown at right.

2. Complete the fields in the **Outgoing Server (SMTP)** section of this window, then click the **Send Test Email** button to verify that parameters have been entered correctly.

3. Click the [Add Group] button to begin adding contacts that will receive alerts. Each group can hold multiple contacts.

4. Click the [Add Mobile Contact] button to add a Mobile Contact, or the [Add Email Contact] button to add an Email Contact.

5. Complete the required fields for either a Mobile Contact or an Email Contact, then click the **Apply** button.

Repeat steps 3 & 4 for any additional contacts.

Note: For any geo-fence alerts that should be sent to a Group of message recipients (configured using the steps above), be certain to **enable** that group in the Condition window of the geo-fence as shown at right. See Page *49* for more details about *Geo-fences and Geo-fence Conditions*.
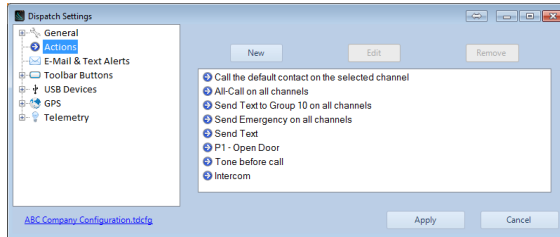
For Groups that should receive emergency alerts, be certain to enable that group in the Notifications section of the Emergencies sub folder. For more information see *Emergencies Sub-folder* on page 40.
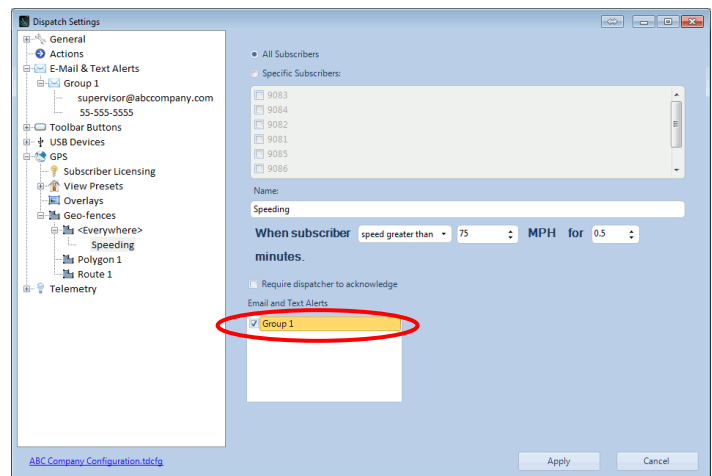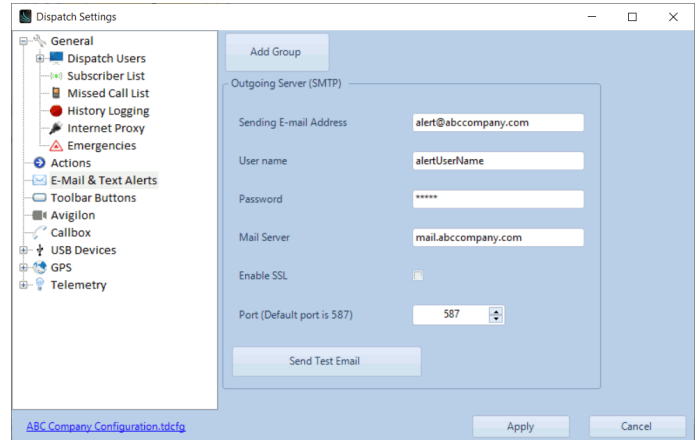
Click the [Apply] *button to save all Dispatch Settings.*

Actions Folder

When the **Actions** folder is selected, the following window will be displayed.

This window is used to define specific Actions, including the following:

- *Audio calls*, such as All Call, Call Selected, Tone Alert before

- *Text Messaging*, such as Free-form Messaging, or Canned Messaging

- *Transmit Emergency*

- *Telemetry*

- *P Buttons*

- *Radio Check*

- *GPS Update*

- *Report Problem*

Several Actions are pre-defined as indicated in the above screen capture.

Most of the actions listed above can be associated with a Toolbar Button (using the **Toolbar Buttons** folder) or a USB PTT device (using the **USB Devices** folder) for use by a Dispatcher. The *Radio Check* action can be configured and then assigned to the Radio Check button located towards the bottom of the Subscribers List.
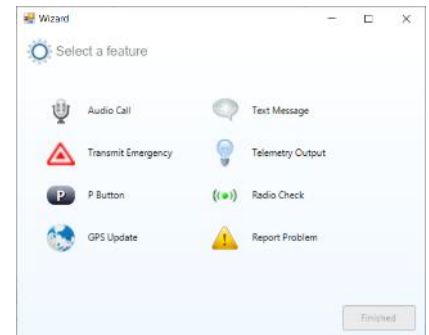
To create a new *Action*, click the ⬚New⬚ button to display the **New Action Wizard**.

Select one of the options, and then click the ⬚Next⬚ button. Complete the Wizard prompts to create the new Action.

Following the creation of an Action, associate the Action with an action initiator such as a Toolbar Button or USB PTT device.
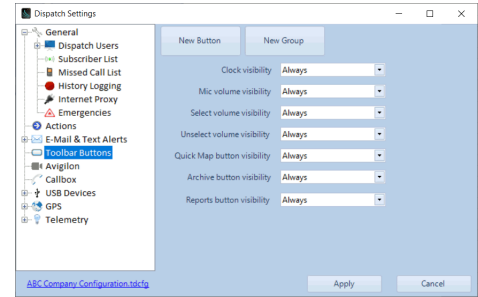
See the *Example – Create an Action and Toolbar Button* section on page *44* for more details on creating Actions and custom Toolbar Buttons.

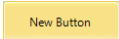*Click the* ⬚Apply⬚ *button to save all Dispatch Settings.*

Toolbar Buttons folder

Custom buttons may be added to the **Toolbar**. When the **Toolbar Buttons** folder is selected, the window to the right will be displayed.
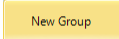
New Button

Click the [New Button] button to begin to create a new Toolbar button, and the window to the right will be displayed.

Choose an **Action** from the drop-down list, rename the **Button**, and then click the [Apply] button.
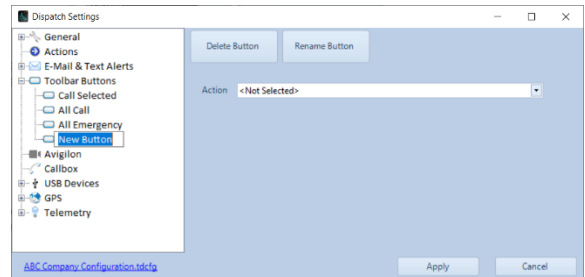
New Group

Click the [New Group] button to create a button that can hold

several nested buttons. After a Group button has been created, select the button, and then click [New Button] to nest buttons under this group button. Finally, add an action to each button.

Other Options

Clock visibility
Choose an option from the drop-down list to show the **Clock** on the Toolbar.

Mic volume visibility
Choose an option from the drop-down list to show the **Mic** volume on the Toolbar.

Select volume visibility
Choose an option from the drop-down list to show the **Select** volume on the Toolbar.

Unselect volume visibility
Choose an option from the drop-down list to show the **Unselect** volume on the Toolbar.

Quick Map button visibility
Choose an option from the drop-down list to show the **Quick Map** button on the Toolbar. This button will provide access to an additional map window that a Dispatcher can use for specialized needs. This button should be configured to be invisible for systems installations that are not equipped to handle GPS and Text Messaging due to data handling restrictions.

Archive button visibility
Choose an option from the drop-down list to show the **Archive** button on the Toolbar. This button provides access to the **Archive Viewer** utility, where database searches can be performed. The Archive Viewer utility can also be accessed independently by running the ArchiveViewer.exe file located on the RadioPro installation folder.

Reports button visibility
Choose an option from the drop-down list to show the **Reports** button on the Toolbar. This button provides access to the **Reports** utility, where summarized data can be viewed and exported. The Reports utility can also be accessed independently by running the Reports.exe file located on the RadioPro installation folder.

Example – Create an Action and Toolbar Button for "Call Selected"

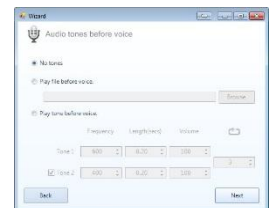1. Use the following steps to add an **Action** to make an *Audio Call* to the *Selected Talk Groups*.

   a. From the Actions folder in the **Dispatch Settings** window, click the [New] button to display the Wizard's **Select a feature** window shown at right. Choose the **Audio Call** button in the above window, and then click the **Next** button.
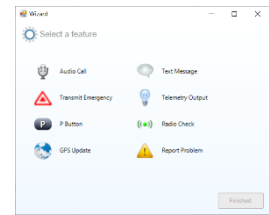
   b. On Wizard's **Audio Settings** window, check the box for "*Wait for the channel to become free . . .*", and then click the **Next** button.
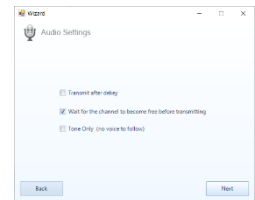
   c. On the Wizard's **Audio Tones** window, choose an option to sound single or dual-tones before a voice call. Duration of the tones can also be selected on this window. After the tones have been selected and tested, click the **Next** button.

   d. On the Wizard's **Select a User** window, choose "*Default Contact for the selected gateway*" and then click the **Next** button.
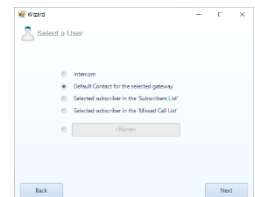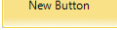
   e. On the Wizard's **Select Gateway's to Use** window, choose "*Use the selected channels on the main dispatch screen*". This selection will key-up all of the "Selected Channels" on the Main Dispatch window.
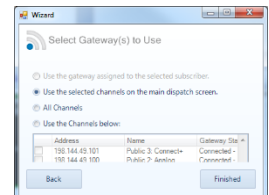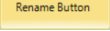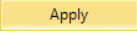
   f. Click the **Finished** button to return to the **Actions** folder of the **Dispatch Settings** window.

   g. Right-click on the newly created *Action* to rename it "Audio Call to Selected Talk Groups" as shown above.

2. Use the following steps to add a **Toolbar Button** to activate the "Call Selected" Action created in Step 1.

    a. From the Toolbar Buttons folder in the **Dispatch Settings** window, click the [New Button] button to display the following window.
    b. From the Action dropdown, select the desired Action.
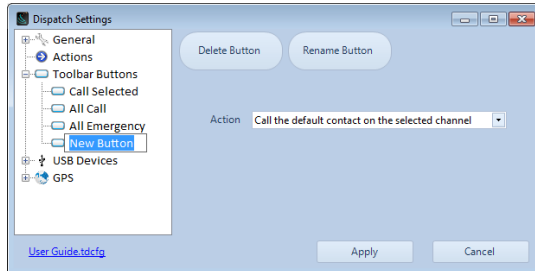
    c. Use the [Rename Button] button to rename the new Toolbar Button.
    d. Rename the button as it should appear on the **Toolbar**.

3. *Click the [Apply] button to save all Dispatch Settings.*

USB Devices Folder

USB devices with Push-to-Talk buttons such as microphones and footswitches can be used with RadioPro. When the **USB Devices folder** is expanded, all available USB devices will be listed. Each USB device will have sub-items such as "PTT 1" or "PTT 2". When a USB sub-item is selected, the windows will look like the following:
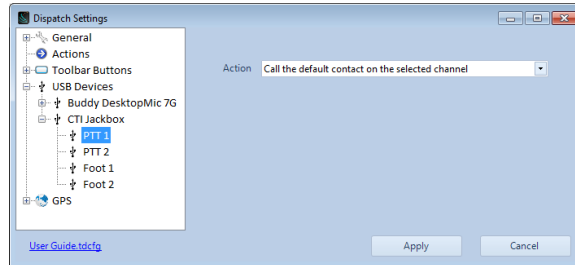
Click on a USB device to view the currently programmed **Action** for that device. Choose an **Action** from the drop-down list.

Click the Apply *button to save all Dispatch Settings.*

GPS Folder

The **GPS** folder is used for configuring *GPS Map options*, *View Presets*, *Overlays*, and *Geo-fences*. When the **GPS** folder is selected, the following window will be displayed.
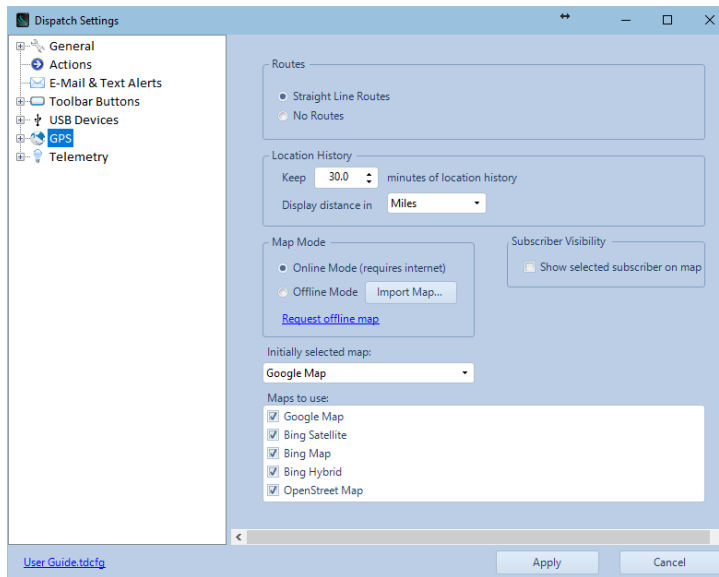

Routes

>*Straight Line Routes*: Choose this option to show travel routes as straight lines between GPS data points. The travel route may not follow actual roads in this case.

>*No Routes*: Choose this option if travel routes should not be displayed.

Location History

>*Keep . . . minutes of location history*: Specify the length of time that Trail Crumbs should be displayed on the map.

>*Display distance in*: Specify Miles or Kilometers.

Subscriber Visibility

>**Enable** this option to show selected subscriber on map.

Map Mode

>Choose **Online Mode** if this Dispatch client PC has access to the Internet.

>Choose **Offline Mode** if this Dispatch client PC does not have access to the Internet. Offline regional maps are no longer available for purchased. Any maps previously purchased can still be used in **Offline Mode**. The **Offline Map** may be imported using the Import Map... button.
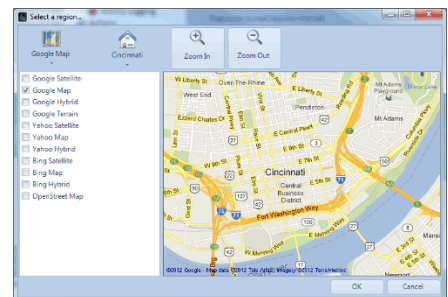

Initially Selected Map

>Choose the mapping service that will be used to initially display the Mapping Window

Maps to use

>**Enable** any mapping services that should be accessible by the Dispatcher.

Click the Apply *button to save all Dispatch Settings.*

Subscriber Licensing sub-folder

Use the Subscriber Licensing sub-folder to add radio IDs that should be tracked using GPS.

Use the [+] button to add a range of radio IDs to the tracking list.

Use the [pencil] button to edit an entry in the tracking list.

Use the [X] button to delete an entry from the tracking list.
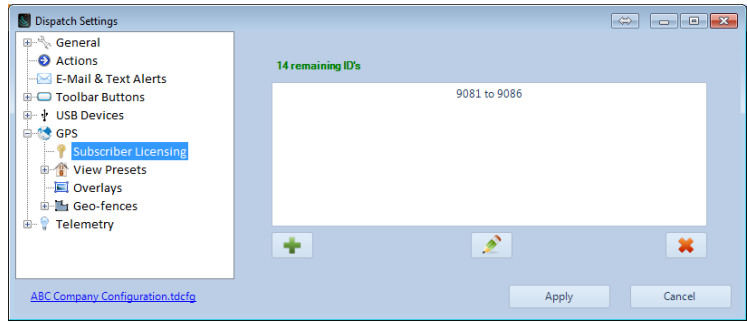
The remaining number of IDs on the license is indicated above the tracking list.

Click the [Apply] *button to save all Dispatch Settings.*

View Presets sub-folder

When the **View Presets** sub-folder is selected, the following window will be displayed.
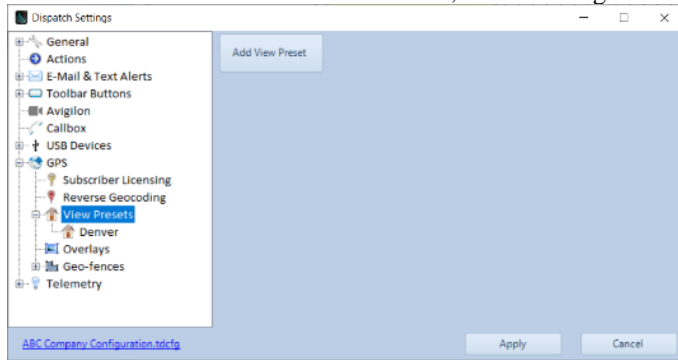
Click the [Add View Preset] button to add a new **View Preset** to the **Toolbar** of the **GPS Window**.

When an existing **View Preset** is selected, a map will be displayed along with buttons for *Deleting*, *Renaming, Move up, Move DOwn*, *Choosing a Map Type*, and *Zooming* the **View Preset**.
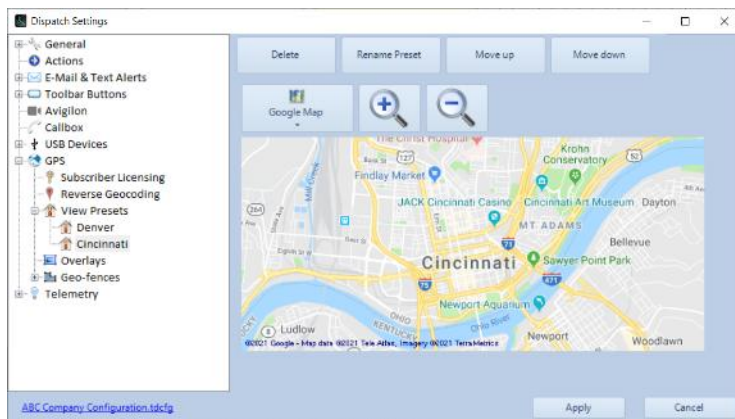
Click the [Apply] *button to save all Dispatch Settings.*

Overlays sub-folder

When the **Overlays** sub-folder is selected, the following window will be displayed. Click the [Add Image Over...] button to add a new **Image Overlay** option to the **Toolbar** of the **GPS Window**.

When an existing **Image Overlay** is selected, a map will be displayed along with tool buttons for *Browsing for an Image*, *Image Transparency*, *Choosing a Map Type*, and *Zooming the View Preset*.
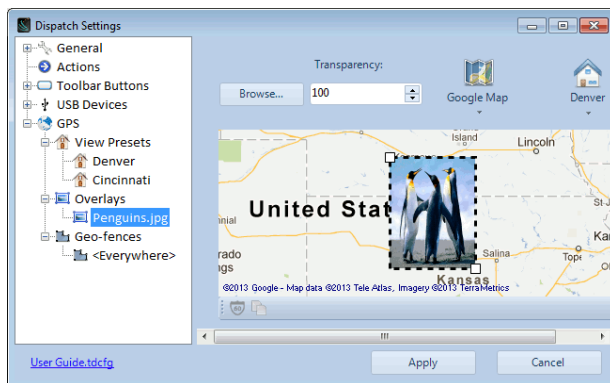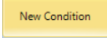
Click the [Apply] *button to save all Dispatch Settings.*

Geo-fences sub-folder

One or more Geo-fences may exist in order to check various conditions of radio subscribers. One or more conditions may exist for each geo-fence. The conditions can apply to "*All Subscrib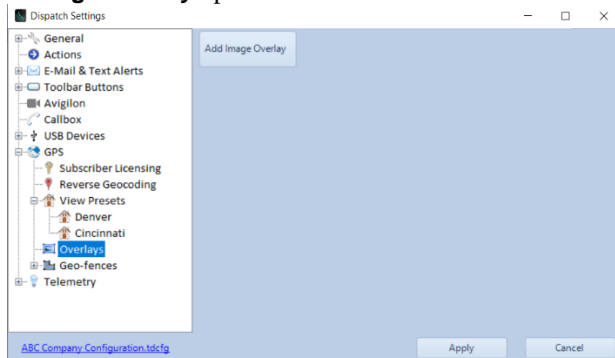ers*" or "*Specific Subscribers*". When a Geo-fence condition is met for a radio subscriber, an event is logged in the database. In addition, Geo-fence conditions that are true are listed in the **Geo-Fence Alerts** tab.

When the **Geo-fences** sub-folder is selected, the following window will be displayed.
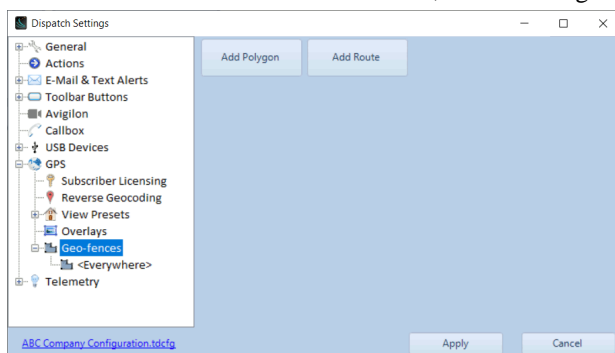
A geo-fence named "Everywhere" will exist in the list of Geo-fences. The "Everywhere" geo-fence can be used to check subscriber conditions regardless of where they are located. The "Everywhere" geo-fence cannot be renamed or deleted from the list. To add one or more conditions for this geo-fence, select it, and then click the [New Condition] button.

Geo-fence Types

Two types of geo-fences may be added to the Map. A *Polygon* geo-fence is defined by three or more points, and can be any shape. A *Route* geo-fence is defined by two points (a beginning and an end to the Route) as well as a fence width.

Polygon Geo-fence

A *Polygon* geo-fence is defined by three or more points, and can be any shape. To add a new *Polygon* geo-fence to the map, click the [Add Polygon] button, and the following **Polygon Editing** window will be displayed.

Click various points on the map to create the needed *Polygon* geo-fence.
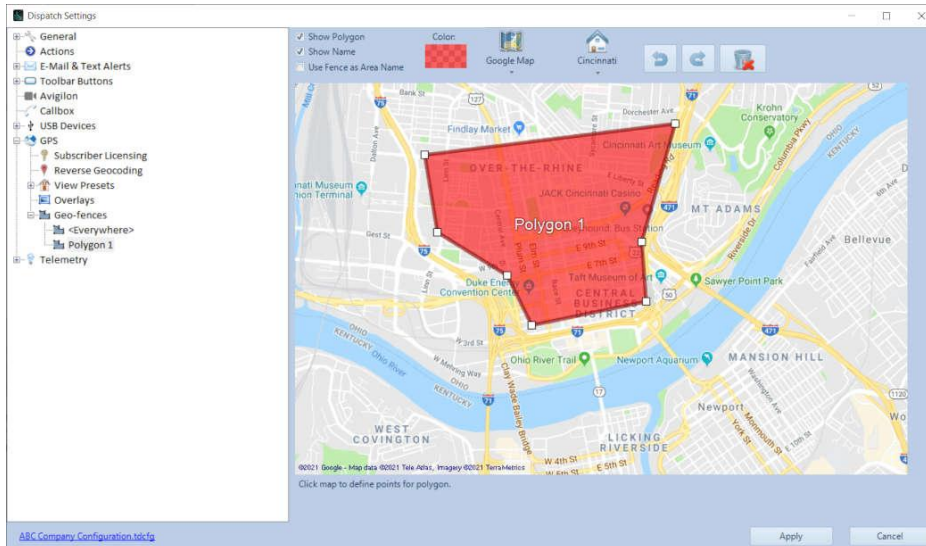
Use the following controls on the above window to customize a *Polygon* geo-fence.

Pan and Zoom
Click and drag the mouse to Pan in any direction. Use the Scroll Wheel to zoom in and out.

Show Polygon
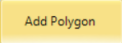**Enable** this option to display this *Polygon* geo-fence on the **Map Window**.

Show Name
Enable this option to display the **Name** of this *Polygon* geo-fence on the **Map Window**.

Use Fence as Area Name
Enable this option to list this *Polygon* name in reports instead of listing a street address for the subscriber.

Color
Use the [color] tool to choose a color and transparency for this geo-fence.

Map Type
Use the [map] tool to choose a *Map Type*.

View Preset
Use the [home] tool to choose a *View Preset*.

Undo
Use the [undo] tool to remove the last added point of this *Polygon* geo-fence.
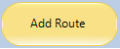
Redo
Use the [redo] tool to redo the last removed point of this *Polygon* geo-fence.

Remove all Points

Use the [icon] tool to remove all points of this *Polygon* geo-fence.

Route Geo-fence

A *Route* geo-fence is defined by two or more points as well as a fence width. To add a new *Route* geo-fence to the map, click the [Add Route] button, and the following **Route Editing** window will be displayed. Click points on the map to create the needed *Route* geo-fence.
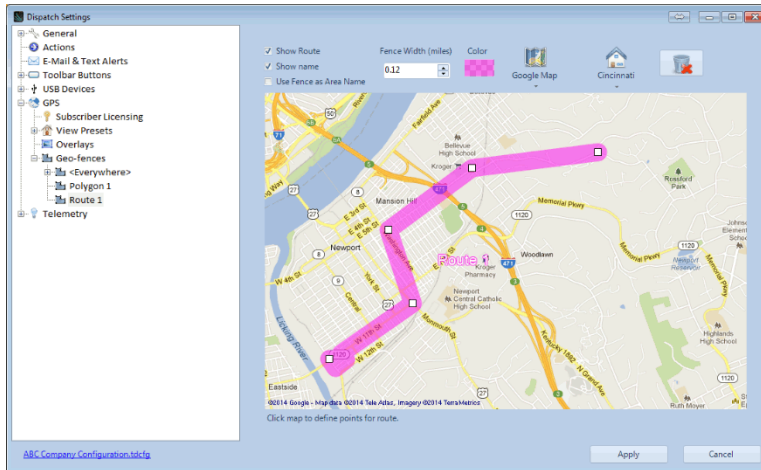
Use the following controls on the above window to customize a *Route* geo-fence.

Pan and Zoom

Click and drag the mouse to Pan in any direction. Use the Scroll Wheel to zoom in and out.

Show Route

Enable this option to display this *Route* geo-fence on the **Map Window**.
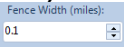
Show Name

Enable this option to display the Name of this *Route* geo-fence on the **Map Window**.

Use Fence as Area Name

Enable this option to list this *Route* name in reports instead of listing a street address for the subscriber.

Fence Width (miles)

Use the [Fence Width (miles): 0.1] tool to specify a *Fence Width*.

Color

Use the [Color icon] tool to choose a color and transparency for this **Route geo-fence**.

Map Type

Use the [icon] tool to choose a *Map Type*.

View Preset

Use the [icon] tool to choose a *View Preset*.

Remove all Points

Use the [icon] tool to remove all points of this **Route geo-fence**.

Click the [Apply] *button to save all Dispatch Settings.*

Geo-fence Conditions

One or more Conditions may be created for any Geo-fence. Each Condition can specify details for the following parameters:

- **All Subscribers** or **Specific Subscribers**
- Subscriber is **Inside** or **Outside the Geo-fence**
- Subscriber is traveling **Over a Limit**, **Under a Limit**, or **Stopped**
- **Duration** of **Over-speed**, **Under-speed**, or **Stopped**

To create a new Condition for a Geo-fence, right-click the Geo-fence, and then choose **New Condition**. A window similar to the following will be displayed.
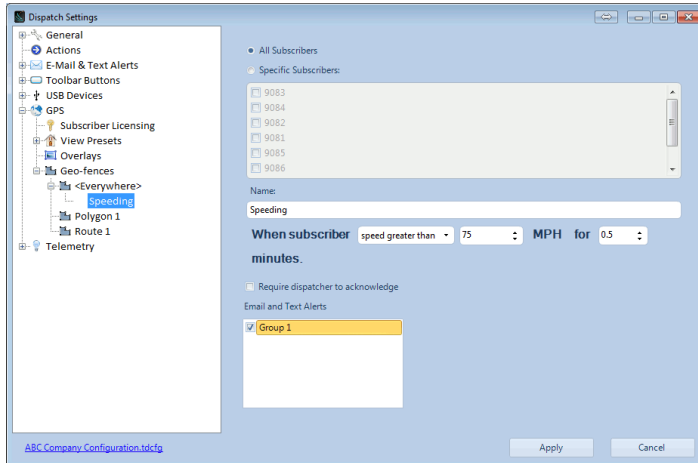
For each condition created, choose the appropriate options:

All Subscribers or Specific Subscribers
> Select the subscribers that this condition should be applied to this condition.

Condition
> Create a Name for this condition, along with the condition parameters (such as **speeding** or **entering a Geo-fence**).

Require Dispatcher to acknowledge
> **Enable** this option if a violation of this Geo-fence condition should be acknowledged by the dispatcher using the **Geo-fence Alerts tab**.

Email and Text Alerts
> **Enable** one or more groups of contacts to send violations to if this Geo-fence condition.

Click the *button to save all Dispatch Settings.*

The Geo-fence Alerts tab can be viewed on the Main Window. A typical listing of Geo-fence Alerts is shown below.

Geo-fence alerts will be saved in the data-base (if History Logging is enabled).

4.5 Saving the Page Layout

To save the Page Layout discussed in the previous sections, use the following steps:

1. Ensure that the program is in *Edit* mode: From the **File** menu, click **Edit**.

2. Also from the **File** menu, click on **Save As**. Enter a file location and file name, then click the **Save** button.

5. APPENDIX

5.1 Configuration Files

If a Dispatch console PC has already been configured, and it is desired to clone that configuration to additional console PCs, then use the Clone function described in *4.3 Configuration using Cloned* Settings on Page 16. (This feature is available for Dispatch client version 7.0.5 and later.)

Layout Configuration Files

Two Layout Files are created when **Save As** is selected from the **File** menu:
```
yourLayoutName.xml
yourLayoutName.tdcfg
```

These files contain information for displaying the RadioPro Dispatch client user interface screen in unique ways. Multiple Layout Files may be created and used if there is a need to present different screen options. These files may be copied to other PCs to duplicate a screen layout.

Warning: Do not attempt to edit these files!

The location of the Layout Configuration files can be found by using the following steps:

1.   When in the **Edit** mode, click on the **Options** menu, and then choose **Dispatch Settings**.
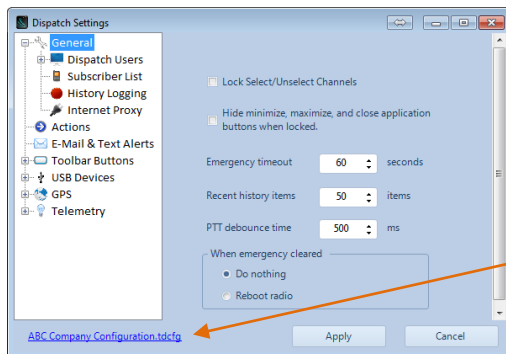
Note: The configuration file for Dispatch Settings can be located and viewed by clicking on the file name ending with "tdcfg"

2.   In the lower left-hand corner of the **Dispatch Settings** window, click on the file name listed that ends with ".tdcfg". A Windows file folder will be opened with the configuration file selected.

Alias Table File

A **comma separated values** formatted file stores a table with Alias Names, Type of Subscriber, Radio ID, and Assigned Radio. This file is named:
```
AliasTable.csv
```

The location for the Alias Table file can be found by using the following steps:

1.   From the **Options** menu, choose **Contacts**.

2.   In the lower left-hand corner of the **Subscriber Contacts** window, click on the file name listed that ends with **csv**. A Windows file folder will be opened with the configuration file selected.

This file may be copied to other PCs to duplicate Alias names.

Editing Alias Names using Microsoft Excel

Microsoft Excel can be used to import or edit a large group of Subscriber radio IDs and Alias names.

To create a list of Subscriber Radio IDs/Alias Names, use the following steps:

1.   Open the following Alias Table file using Microsoft Excel:

For Windows 10
```
c:\ProgramData\RadioPro
```

2. Edit the file with appropriate data, but do not change the headings in Row 1. The file should appear as shown at right.

	A	B	C	D	E
1	Alias	Type (PRI GRP MDC QQ2)	Id	Assigned Radio	Groups
2	On-Call	DIG GRP	13777215		Default
3	Public 1	DIG GRP	10		Default
4	Walt - Truck 12	DIG PRI	9081		Default
5	Nancy - Truck 14	DIG PRI	9082		Default
6	Toby - Truck 23	DIG PRI	9083		Security
7	Sam - Truck 41	DIG PRI	9084		Default
8	Matt - Truck 49	DIG PRI	9085		Default
9	Delores	DIG PRI	257		Default
10	Tom	DIG PRI	1001		Default
11		GroupOrder	Default	Security	Administration
12					

Alias

This column contains the Alias names to be associated with Subscriber radio IDs. *(Leading spaces are not allowed.)*

Type

This column contains the type of subscriber contact from the following choices. *(Leading spaces are not allowed.)*:

DIG PRI (Digital Private Subscriber) *(Must be all CAPS)*
DIG GRP (Digital Group) *(Must be all CAPS)*
MDC PRI (MDC Analog Private Subscriber) *(Must be all CAPS)*
MCD GRP (MDC Analog Group) *(Must be all CAPS)*

ID

Radio ID of Private Subscriber or Group. *(Leading spaces are not allowed.)*

Assigned Radio

Cells in this column can be left blank for automatic (normal) channel assignment. Alternatively, the IP Address of a RadioPro IP Gateway can be entered to assign the **Private Subscriber** or **Group** to a fixed channel. *(Leading spaces are not allowed.)*

Groups

Cells in this column contain **Default** or a group name to be listed in the **Subscribers** tab. *(Leading spaces are not allowed.)*

Group Order

This row defines the order of the **Groups** names when listed in the **Subscribers** tab. *(Leading spaces are not allowed.)*

3. Save the file using "comma separated values" format.

DispatchUsers.cfg File

This text file stores user login names and is located in the same folder as the Layout Configuration files.

Warning: Do not attempt to edit this file!

Audio Settings.cfg File

This text file stores information about audio input and output device selection, audio levels, and cross-muting. It is located in the same folder as the Layout Configuration files.

Warning: Do not attempt to edit this file!

License.key File

This encrypted file stores license information allowing the RadioPro Dispatch client to connect to a maximum number of RadioPro IP Gateways. It is located in the same folder as the Layout Configuration files.

Warning: Do not attempt to edit this file!

5.2 Converting a Timed-License to a Non-Expiring License

The RadioPro IP Dispatch licenses that were shipped with this order may have a timed-license duration of 120 days. (The Packing List will indicate Part # S2-61618 if the timed-license is active.) If the Timed-License is active, and following the 120 day period, the RadioPro Dispatch software will not connect to a RadioPro IP Gateways.

Following receipt of payment to CTI Products for ordered and shipped items, a request may be made to convert a timed license to a non-expiring license. Use the following steps to convert the license:

1. Email the Dispatch License Key serial number to *support@ctiproducts.com*. The email subject line should be "Request for non-expiring Dispatch license". If you are requesting non-expiring licenses for multiple Dispatch licenses, list all of the License Key serial numbers.

2. Following receipt of the updated license file from CTI Products, use RadioPro Dispatch to update the software:

    a. From the **File** menu, choose **Edit**.

    b. From the **Options** menu, choose **Update License**.

    c. In the **Update License** window, click the **Import License Key** button, and then choose the location where the updated license file was saved.

    d. Close the **Update License** window.

   e. From the **File** menu, choose **Save**.

5.3 Telemetry (Remote I/O) Panel Configuration

The Telemetry Panel must be configured in order to show status or provide control for I/O points located in vehicles or facilities.

I/O points can be provided using the following optional hardware interfaces:

- For vehicle I/O, a Tallysman Sprite must be connected to the mobile radio. Features include:
    - 8 I/O points (3 inputs provided by Sprite, 5 I/O provided by radio).
    - Store-and-forward for GPS and I/O data when radio is out of RF coverage.
    - Buffering and acknowledgements by Sprite assures reliable control and status monitoring.
    - Available for MOTOTRBO (TW200) and NEXEDGE (TW202).
    - More information at: *https://tallymatics.com/product/tw200/*

- For facility I/O, Advantech Adam 6000 modules must be connected via IP to the Dispatch PC. Features include:
    - Compact, isolated I/O, economical.
    - Recommend models include:
        ADAM-6050, 12 inputs, 6 outputs
        ADAM-6052, 8 inputs, 8 outputs
        ADAM-6060, 8 inputs, 6 relay form A outputs
    - More information at: *https://www.advantech.com/products/ethernet-i-o-modules-adam-6000/sub_a67f7853-013a-4b50-9b20-01798c56b090*

An example Telemetry Panel is shown in the following screenshot.
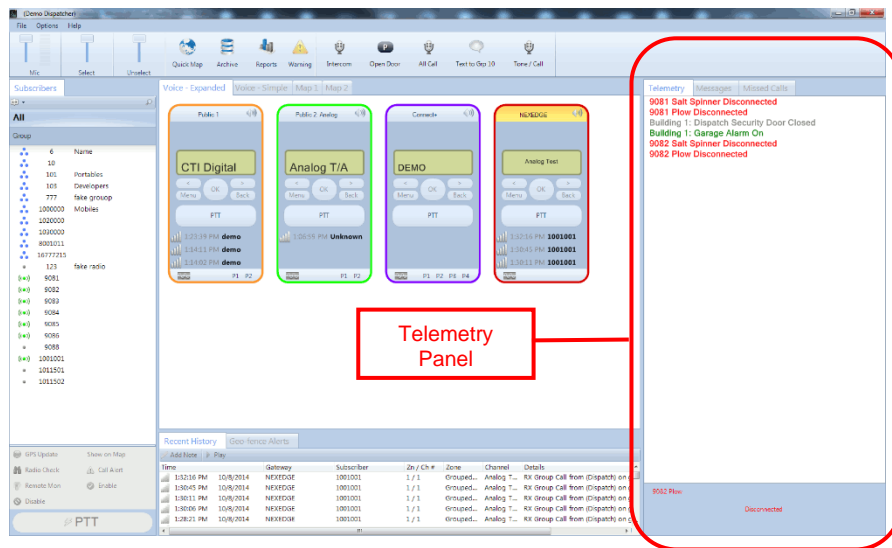
The upper portion of the Telemetry Panel is a listing of configured I/O points. The text for each item in the list includes a description of the I/O, as well as its status. In addition, the text is color-coded to indicate its status. Select one of the items in the list to show more details at the bottom of the Telemetry Panel.

The bottom portion of the Telemetry Panel shows detail about the selected I/O point in the list. For an output, this is acts as a button to change the state of the I/O point.
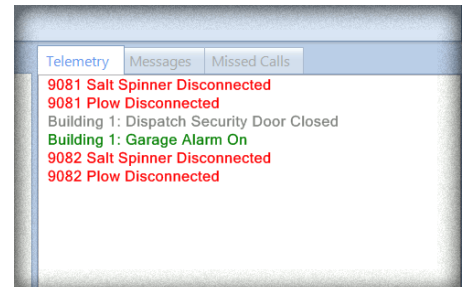
## Configuring radio-based Tallysman Sprite TW2xx modules

Use the following steps to configure a Tallysman Sprite module:

1. Download the *Sprite Configuration Utility* from:
   https://ctiproducts.com/SoftwareDownloads/RadioPro/spritecfgsetup0_2_54.exe
2. Download the Sprite Configurator User Manual from:
   https://ctiproducts.com/documents/radiopro/SpriteUserManualRev1_3.pdf
3. Configure the Sprite TW2xx as required.

Configuring Advantech Adam 6000 modules

Use the following steps to configure Advantech Adam modules:

1. Download the Configuration Utility from:
   https://www.advantech.com/support/details/utility?id=1-2AKUDB
2. Run the Adam.Net utility.
3. Search for your Adam module by selecting the IP address of the Host PC from the tree display then clicking the magnifying glass in the toolbar. *(If the module is unused it will have the default IP address of 10.0.0.1, which will need to be configured to have the same subnet as the host PC.)* The window shown at right will be displayed.
4. Click **Apply** after any changes are made. *(Default Password is 00000000.)*
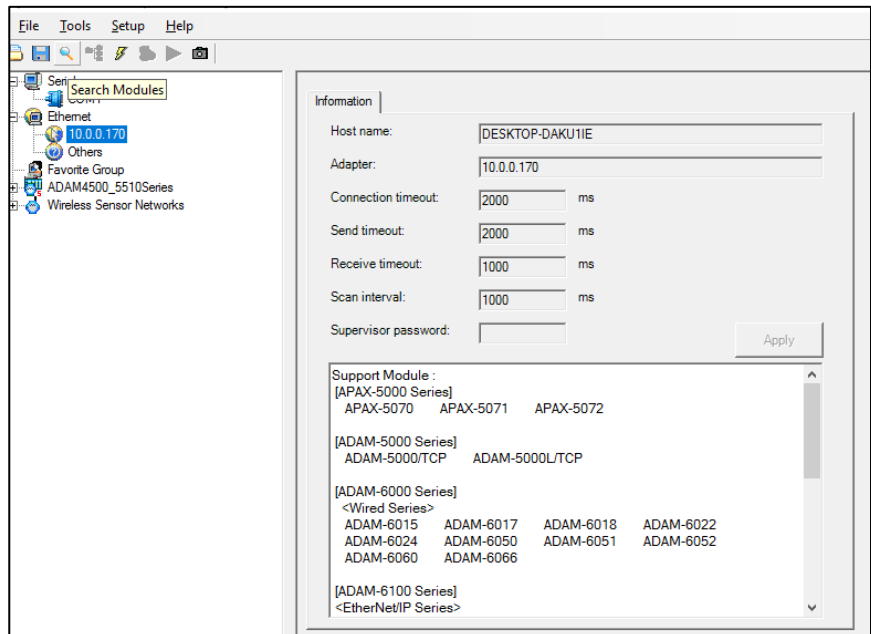
5. Select the IP address of your
    Adam module from the tree
    display to complete the general
    configuration of the module.
    The window shown at right will
    be displayed.
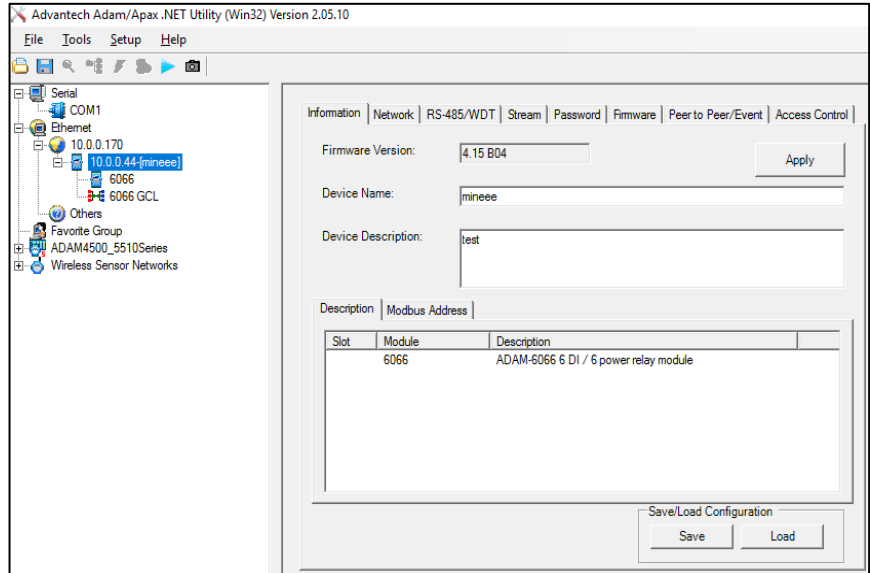
6. After the Adam module is fully
    configured in the general
    section, you may configure the
    settings for the I/O channels by
    clicking the (+) sign located
    next to the Adam module in the
    tree display. The window
    shown at right will be
    displayed.
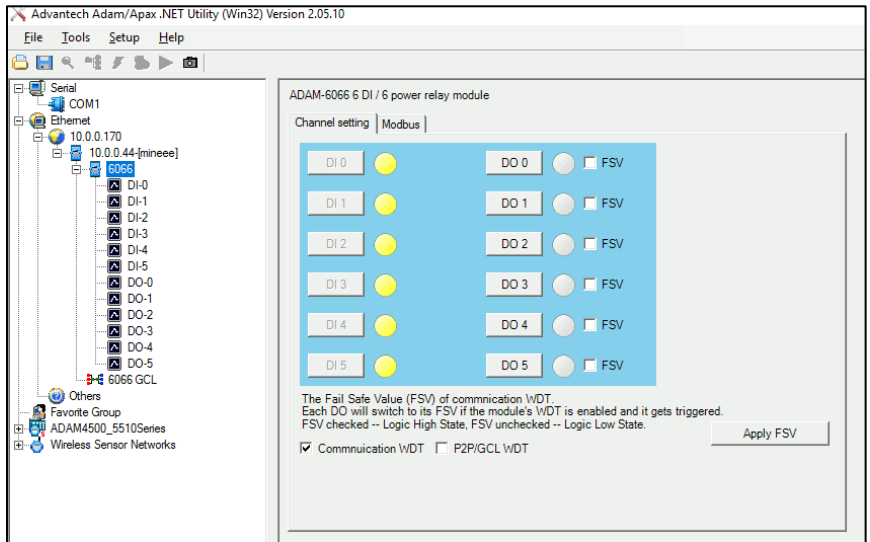
Configuring RadioPro Dispatch for the Telemetry functions

Use the following steps to configure RadioPro Dispatch for telemetry functions:

1. Configuration can be performed only if the program is in Edit mode. To change to Edit mode, click on the File menu, and then click **Edit**. (If **Lock** is displayed in the menu, then the RadioPro Dispatch client is already in Edit mode.)

2. Click **Show** and select Telemetry from the drop down menu.

3. Click on the **Options** menu, and then click **Dispatch Settings**.

4. From the tree display under Telemetry select **IO Module**.

5. When the IO Modules sub-folder is selected, the window shown at right will be displayed.
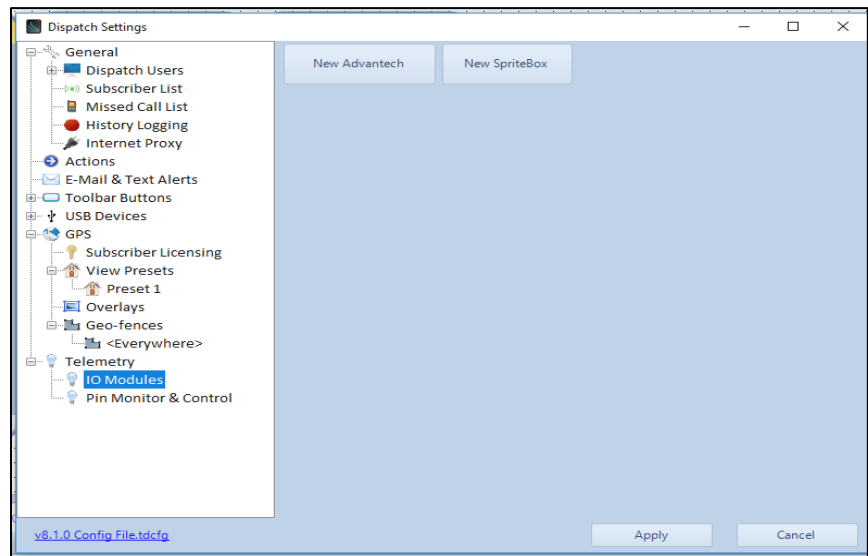
6. Select New Advantech, the window shown at right will be displayed.

7. Enter the IP address you assigned to the Adam module in the Adam.Net Utility.

8. Select the correct module type. *(Optional: You can rename your new tab in the tree display here, by double clicking on the sub-folder you just created.)*

9. Click the **Ping Module button**. A successful ping notification should pop-up.
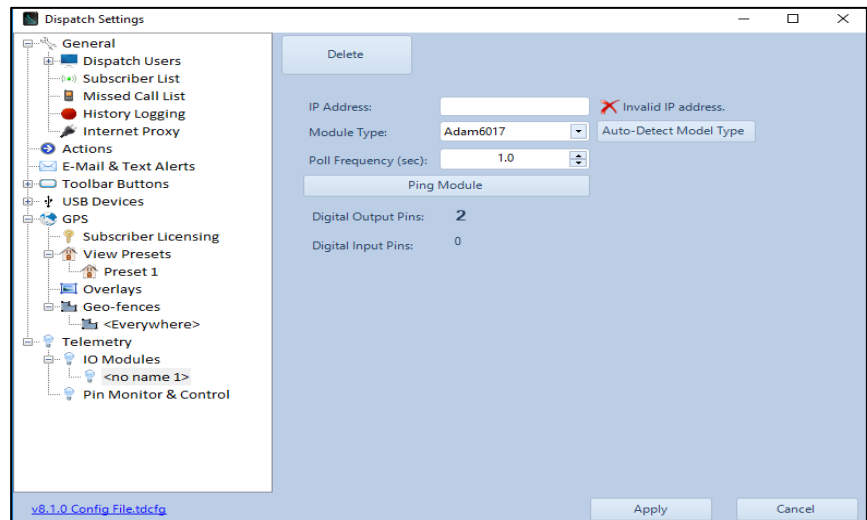
10. Select **Pin Monitor & Control**, the window shown at right will be displayed.
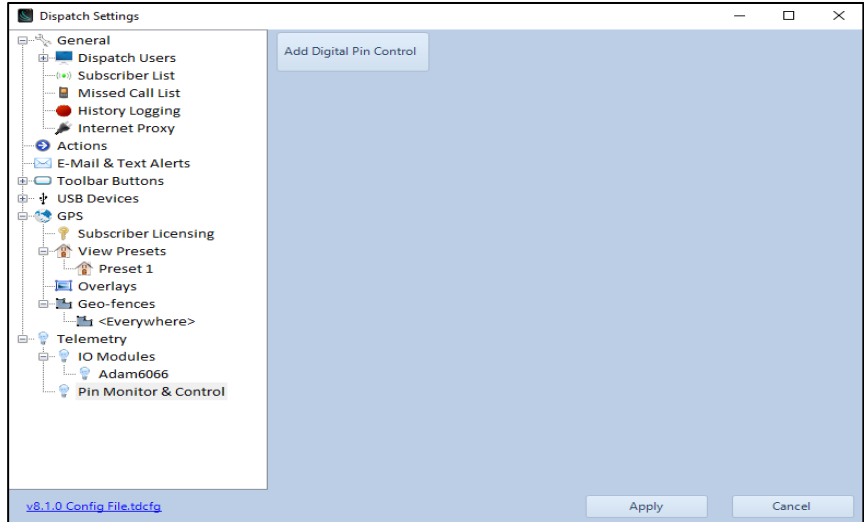
11. Select **Add Digital Pin Control**, the window shown at right will be displayed.

12. Configure these settings to your preference. *(Optional: You can rename your new tab in the tree display here, by double clicking on the sub-folder you just created.)*

13. Click the **Apply** button to save all Dispatch Settings.
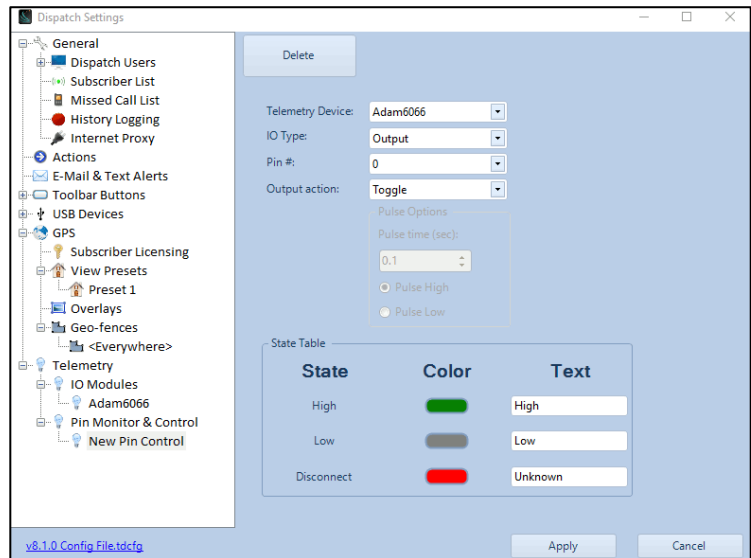
5.4 Using the PTT to Drive an External Signal

An external signal can be activated whenever a call is initiated by any software or hardware PTT button. An additional relay module is required to interface between a USB port of the Dispatch PC and the external equipment to be activated. Use Delcom Products model 900202 (USB G2 Dual Relay Module). This module has two Form-C relays, and includes the necessary USB cable (6 ft. long). Use the following link for more details, such as specifications, ordering, and datasheet:

http://www.delcomproducts.com/ProductDetails.asp?ProductNum=900202

This feature requires RadioPro Dispatch version 8.1.1 or later. No other hardware or software configuration is needed.
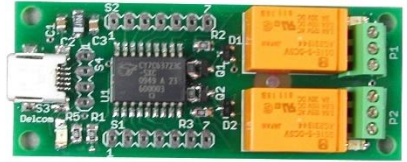
5.5 Feature Availability

Motorola MOTOTRBO Systems

Depending on MOTOTRBO System Type, some features may not be available. Use the following table to determine if a feature discussed in this document is available.

System Type / Feature	Analog	Conventional Digital	Cap +	IP Site Connect	Linked Cap +	Connect Plus	Cap Max
Voice Dispatch	✓	✓	✓	✓	✓	✓	✓
Text Messaging		✓	✓	✓	✓	Not Currently	✓
GPS Mapping		✓	✓	✓	✓	Not Currently	✓
ARS		✓	✓	✓	✓	Not Currently	
Private Call		✓	✓	✓	✓	✓	✓
Remote Monitor		✓	✓	✓	✓	✓	✓
Remote Enable/Disabl		✓	✓	✓	✓	✓	✓

Kenwood NEXEDGE Systems

Depending on NEXEDGE System Type, some features may not be available. Use the following table to determine if a feature discussed in this document is available.

System Type / Feature	Analog	Analog w/ FleetSync	Digital NXDN	Digital NXDN w/ call ack.	NXDN & LTR Trunking	NXDN Trunking (Mssg Trnkd)
Voice Dispatch	✓	✓	✓	✓	✓	✓
Text Messaging		✓	✓	✓	✓	✓
GPS Mapping		✓	✓	✓	✓	✓
Status Updates		✓	✓	✓	✓	✓
Selective Calling		✓	✓	Not Currently Supported	✓	Not Currently Supported
Remote Monitor		✓	✓	✓	✓	✓
Remote Enable/Disable		✓	✓	✓	✓	✓

6. DIAGNOSTICS & TROUBLESHOOTING

6.1 Diagnostics

ARS/GPS Event Viewer

ARS (Subscriber Status Updates) and GPS messages arriving at an IP Gateway from the radio system can be viewed by using the *ARS/GPS Events Viewer* as follows:

1. From the **Help** menu, choose **ARS/GPS Events**.
2. Choose either the **ARS** or **GPS** tab to view those events.

6.3 Troubleshooting

Connections to IP Gateways

RadioPro Dispatch client cannot connect to Control Station Radio

Possible Cause

IP connection is not possible between Dispatch client PC and RadioPro IP Gateway. To verify, view the status of connections using the **Manage Devices** window, found under the **Options** menu.

> **Corrective Actions**
>
> If "*Gateway not found*" is indicated in the **Manage Devices** window, verify the following:
>
> 1. Is IP Gateway powered up?
> 2. Is IP Gateway connected to the LAN?
> 3. Is data activity LED flashing on the Ethernet connector on the rear of the IP Gateway?
> 4. Is the IP Address and Port listed correctly in the **Manage Devices** window?
> 5. If Dispatch PC and IP Gateway are on the same IP Subnet, perform a "Ping" from the Dispatch PC to the IP Gateway in a Windows command prompt: Does the "Ping" command from the Dispatch PC result in "Reply from …"?
> 6. If Dispatch PC and IP Gateway are not on the same IP Subnet, has port forwarding been configured correctly in the connecting firewall/router? See *RadioPro IP Gateway Installation Guide*; **Port Forwarding**, for more details.

Possible Cause

Connection is not possible between IP Gateway and Control Station Radio. To verify, view the status of connections using the **Manage Devices** window, found under the **Options** menu.

> **Corrective Actions**
>
> If "Radio Version" is not indicated, verify the following:
>
> 1. Is radio powered up?
> 2. Is radio connected to IP Gateway as indicated in *RadioPro IP Gateway Installation Guide*?
> 3. For a MOTOTRBO Control Station Radio, are the IP Gateway and Radio configured for different IP Subnets? If not, see *RadioPro System Planner* for IP address schemes of various radio system types.

Audio

Audio from Subscriber Radios cannot be heard at the Dispatch PC

Possible Cause

Control Station radio is not receiving audio from subscriber radio.

Corrective Action

Increase the volume level on the Control Station radio. Is audio from a subscriber radio heard at the Control Station radio? If not, check radio system for causes. If audio is heard, then continue with other *Possible Causes* listed below.

Possible Cause

IP Gateway is not connected to Control Station Radio.

Corrective Action

Ensure that radio is connected to IP Gateway's DE-9 connector.

Possible Cause

Desk speakers are not turned on or the volume level is set too low.

Corrective Action

Turn on desk speakers and set volume level to 50%.

Possible Cause

Audio playback device such as speakers or headset is not configured and listed in the **Audio Presets** of the **Options** menu.

Corrective Action

From the **Edit** mode, configure **Audio Presets** for speakers or headset.

Possible Cause

Select or *Unselect* volume slider located on the Dispatch client Main Toolbar is set too low.

Corrective Action

Increase the *Select* or *Unselect* volume slider.

Possible Cause

Radio Controller volume slider is set to **Mute**.

Corrective Action

Un-mute the Radio Controller volume slider.

Possible Cause

The audio driver for this Radio Controller may be corrupt. (This could be a possible cause if audio from other Radio Controllers can be heard.)

Corrective Action

From the *Edit* mode, delete the radio controller using:

Options > Manage Devices > (Select the faulty Address) > Remove.

Then re-enter the deleted address by clicking the [Add] button.

Audio from Subscriber Radios are delayed by more than one second

Possible Cause

Audio recordings are being stored to a device with slow access, such as an external USB drive.

Corrective Action

Use either a second partition on the main drive, a second internal drive, an external eSATA drive, or a network drive. See *Section 1.3 What You Will Need* on Page *10* for more details.

Audio from Dispatch PC cannot be heard at the Subscriber Radios

Possible Cause

Microphone or headset is not connected to the Dispatch client PC.

Corrective Action
Ensure that microphone or headset is connected to Dispatch client PC. Verify that the VU meter for the microphone shows appropriate level when a transmission is attempted.

Possible Cause
Audio record device such as microphone or headset is not configured and listed in the **Audio Presets** of the **Options** menu.
Corrective Action
From the **Edit** mode, configure Audio Presets for microphone or headset.

Possible Cause
IP Gateway is not connected to Control Station Radio.
Corrective Action
Ensure that radio is connected to IP Gateway's DE-9 connector.

Possible Cause
MOTOTRBO Control Station radio is not configured for **Rear PC and Audio**.
Corrective Action
Ensure that Control Station CPS setting for **Cable Type** in the "Accessories" folder is set for **Rear PC and Audio**.

Possible Cause
MOTOTRBO Control Station radio has *Analog Mic AGC* or *Digital Mic AGC* enabled.
Corrective Action
Ensure that Control Station CPS setting for "*microphone*" section in the "*General*" folder does not have **Analog Mic AGC** or **Digital Mic AGC** enabled. Also verify that **Analog Rear Mic Gain** and **Digital Rear Mic Gain** are set to greater than **+5db**.

Possible Cause
Control Station Radio firmware is incorrect.
Corrective Action
Verify that radio has the minimum firmware listed in the *RadioPro IP Gateway Installation Guide*.

Go-Ahead and Channel-Busy Tones cannot be heard at the Dispatch PC

Possible Cause
Desk speakers are not turned on or the volume level is set too low.
Corrective Action
Turn on desk speakers and set volume level to 50%.

Possible Cause
Audio playback device such as speakers or headset is not configured and listed in the **Audio Presets** of the **Options** menu.
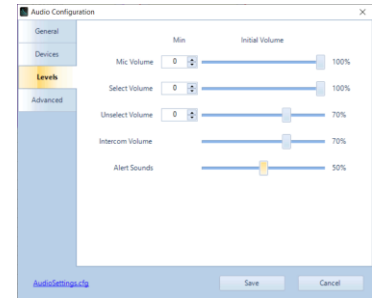**Corrective Action**
From the **Edit** mode, configure Audio Presets for speakers or headset.

Possible Cause

Volume setting for **Alert Sounds** is set too low.

> **Corrective Action**
>
> While in *Edit* mode, from the **Options** menu, choose **Audio Presets**, click **Config**, select the **Levels** tab in the **Audio Configuration** window, adjust the volume level of **Alert Sounds**, and then click the **Save** button.

Voice Playback from Recent History tab cannot be heard

Possible Cause

Voice files are not being recorded to the database.

> **Corrective Action**
>
> Ensure that *History Logging* is enabled. This feature can be found when in the *Edit* mode by clicking **Dispatch Settings** under the **Options** menu, then choosing the **History Logging** folder.

Possible Cause

Desk speakers are not turned on or the volume level is set too low.

> **Corrective Action**
>
> Turn on desk speakers and set volume level to 50%.

Possible Cause

Audio playback device such as speakers or headset is not configured and listed in the **Audio Presets** of the **Options** menu.

> **Corrective Action**
>
> From the *Edit* mode, configure **Audio Presets** for speakers or headset.

Manage Devices Window

Times reported by IP Gateways are not synchronized

Possible Cause

A time server has not been configured correctly.

> **Corrective Action**
>
> See *Section 2. Install Time Server* on Page *13* of this document.

PTT Devices

USB PTT Device does not activate the on-screen PTT button

Possible Cause

PTT device is not connected to the Dispatch client PC.

> **Corrective Action**
>
> Ensure that PTT device is connected to Dispatch client PC.

Possible Cause

Dispatch client is not configured for PTT device.

> **Corrective Action**
>
> Configuration for USB PTT devices can be found when in the Edit mode by clicking **Dispatch Settings** under the **Options** menu, then choosing the **USB Devices** folder.

Possible Cause

If the PTT device is Buddy DesktopMic 7G microphone, device may be configured incorrectly.

Corrective Action

Use *MyBuddyMic* utility to reconfigure the microphone using the following steps:

1. Download the MyBuddySetup installer from:
    https://ctiproducts.com/SoftwareDownloads/RadioPro/MyBuddyMicSetup_2301292_110808.exe
2. Use *Technical Note TN204 TurboVUi Dispatch - Configuring a Buddy DesktopMic 7G.pdf* to reconfigure the Buddy microphone.

PTT Device initiates a call, but call ends abruptly after 3 seconds

Possible Cause

Transmit audio is not being received by RadioPro IP Gateway.

Corrective Action

Ensure that microphone is connected to PC, and is selected in the **Audio Presets** list, found in the **Options** menu.

7. INDEX

8. SYSTEM PLANNER TEMPLATE   PAGE 1 OF 2

RadioPro IP Gateways

See *RadioPro IP Gateway Installation Guide* for more information.

Parameters Common to all IP Gateways

ICU.exe Admin Password *for ICU.exe, default is "admin"*	*Dispatch Client Password* *for Dispatch client connections* *default is "user"*	*NTP Server IP Address* *Network Time Protocol*

Parameters Unique to Each IP Gateway

GPS = GPS Data Revert. *Each IP Gateway supports 1* *Voice & 1 GPS Data Radio.*	*Name* *IP Gateway name has max 2* *lines, 24 chars per line*	*Serial #*	*IP Address*	*Subnet Mask*	*Default Gateway*
IP Gateway A	Example Gateway Name	1234	192.168.56.22	255.255.255.0	192.168.56.1
Voice Radio A0	Example Radio VR A0		192.168.10.1	255.255.255.0	
GPS Radio A1	Example Radio GPS A1		192.168.11.1	255.255.255.0	
IP Gateway B					
Voice Radio B0					
GPS Radio B1					
IP Gateway C					
Voice Radio C0					
GPS Radio C1					
IP Gateway D					
Voice Radio D0					
GPS Radio D1					
IP Gateway E					
Voice Radio D0					
GPS Radio D1					
IP Gateway F					
Voice Radio D0					
GPS Radio D1					
IP Gateway G					
Voice Radio D0					
GPS Radio D1					
IP Gateway H					
Voice Radio D0					
GPS Radio D1					
IP Gateway J					
Voice Radio E0					
GPS Radio E1					

If additional IP Gateways are needed, copy this page.

See next page for System Planner Template Page 2 of 2

9. SYSTEM PLANNER TEMPLATE   PAGE 2 OF 2

RadioPro Dispatch Clients

Parameters Common
to all Dispatch clients

Administrator Password for Edit Mode

Parameters Unique
to all Dispatch clients

PC Name	IP Address	License Serial #	Licensed IP Gateway Connections

RadioPro Solo, Talk, and Talk Mobile Clients

See the _RadioPro Solo Installation Guide_ for more information.
The following parameters are configured in the IP Gateway using ICU.exe.

Parameters Common to all Talk Clients

Administrator Login Name Not Editable	Administrator Password default is "admin"
admin	

User Login Name default is "user"	User Password default is "user"

If additional Solo, Talk or Talk Mobile client logins are needed, copy this page.