

CTI Products

**RadioPro! IP Gateway
Installation Guide
for**

Kenwood NEXEDGE NX-7xx/8xx Radios



Document # S2-61904-821

For Version 8 Software

Contact Us

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

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Warnings

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

Software parameter values

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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[™], Talk[™], or Talk for Mobile[™]) with an IP network connecting the RadioPro components.

1.1 System Components

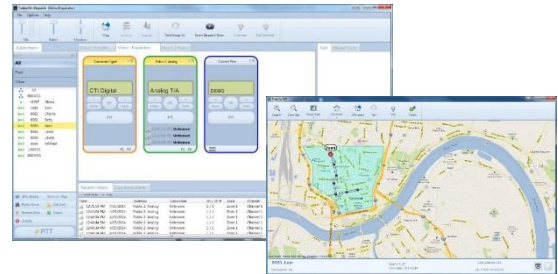
CTI's Dispatch over IP system is based on Server-Client architecture. System components are described below:

- 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, Talk, 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, Talk, and/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 for Motorola MOTOTRBO XPRxxxx, Doc # S2-61903](#)
[RadioPro IP Gateway - Installation Guide for Kenwood NEXEDGE NX-7xx/8xx, Doc # S2-61904](#)
[RadioPro IP Gateway - Installation Guide for Kenwood NEXEDGE NX-57xx/58xx, Doc # S2-61905](#)
[RadioPro IP Gateway Data Sheet](#)
[RadioPro System Brochure](#)

- RadioPro Dispatch Client** (CTI Part #s S1-61770 Core, S1-61771 Voice Module, S1-61772 GPS Module, S1-61773 Telemetry Module, S1-61774 Text Messaging Module) 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).



For more information, see the following information:

[RadioPro Dispatch Client Installation and Configuration Guide, Document # S2-61785](#)
[RadioPro Dispatch Client User Guide, Document # S2-61786](#)
[RadioPro Dispatch Client Data Sheet](#)
[RadioPro System Accessories Catalog](#)
[RadioPro System Brochure](#)

- Solo Client** is a software application for PCs and notebooks that provides voice dispatching to a single radio channel or talk group. The virtual radio head duplicates the full functionality of a XPR4550/5550 control station, including channel steering. Other features include Voice Logging for 24 hours, Text Messaging, and channel steering. It requires Windows 10, 8, 7, or XP operating system. This application can be used with only Motorola MOTOTRBO systems. The use of this application requires a license installed on the IP Gateway. The license will permit some number of simultaneous Solo, Talk, and 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).



For more information, see the following documents:

[RadioPro Solo Installation Guide, Document # S2-61568](#)

[RadioPro Solo User Guide, Document # S2-61432](#)

[RadioPro Solo Data Sheet](#)

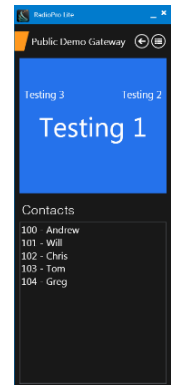
[RadioPro System Brochure](#)

- Talk for Windows PC** is a software application for PCs and notebooks that provides voice dispatching to a single radio channel or talk group. Other features include Voice Logging for 24 hours, Text Messaging, and channel steering. It requires Windows 10, 8 or 7 operating system. This application can be used with either Motorola MOTOTRBO or Kenwood NEXEDGE systems. The use of this application requires a license installed on the IP Gateway. The license will permit some number of simultaneous Solo, Talk, and 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).

For more information, see the following documents:

[RadioPro Talk for PC Data Sheet](#)

[RadioPro System Brochure](#)



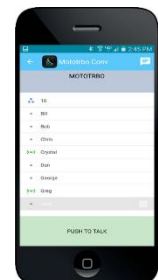
- Talk for Mobile devices** is a mobile app for Android and iPhone/iPad that provides remote access to a 2-way radio system for voice communications, text messaging, and locating another user. This application can be used with either Motorola MOTOTRBO or Kenwood NEXEDGE systems. The Mobile app is useful 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 some number of simultaneous Solo, Talk, and Talk Mobile application users to connect to the radio system.

For more information, see the following documents:

[RadioPro Talk for Mobile Devices How-to-Guide](#)

[RadioPro Talk for Mobile Devices Data Sheet](#)

[RadioPro System Brochure](#)



- **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: XPR5550/5580 (North America)
DGM5500/8500 (Latin America)
DM4600/4601 (Europe)
XiR M8260/M8268/M8660/M8668 (Asia Pacific)
 - Kenwood NEXEDGE: NX-700/800
NX-720/820 (NX-700/800 is preferred)
NX-5700/5800

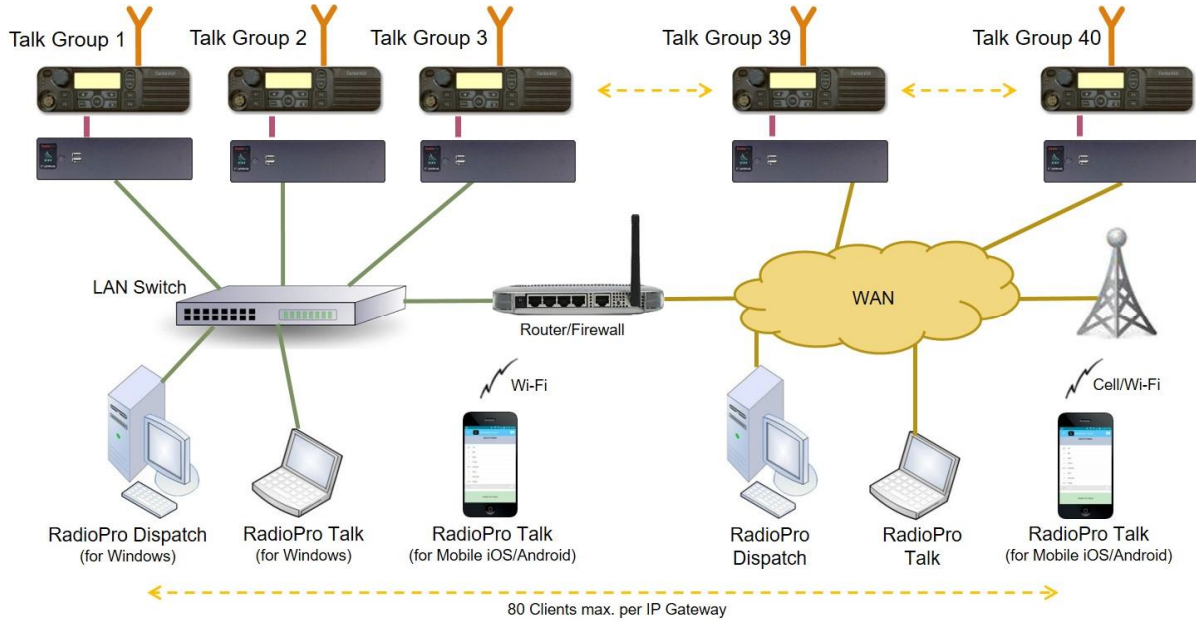
- **Personal Computer or Workstation** is required to host the RadioPro Dispatch, Solo, or Talk for PC clients. Console accessories may include microphone and speakers (or headset), Push-to-Talk footswitch, and touch screen monitor.

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 Talk clients for PCs, as well as 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.



System Maximum Build-out

A RadioPro system may have maximum components listed below.

System Component	Maximum
Dispatch Clients	20
Simultaneous Solo, Talk, and Talk for Mobile client connections per IP Gateway	80
IP Gateways	50

System Planner Document and Template

The System Planner (Document # S2-61645) 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 Environmental Considerations

The operating environment for the IP Gateway must be within limits noted in the specifications, as well as other conditions. Do not install equipment in an area where any of the following exist:

- Extreme temperature and humidity beyond limits listed in the specifications
- High EMI (Electro-Magnetic Interference) or RFI (Radio Frequency Interference)
- High dust concentration
- High ESD (Electrostatic Discharge)
- Extreme Vibration

RF Interference

To prevent RF interference, **Mobile radio antennas** should be kept a **minimum of 24 feet** from the RadioPro IP Gateway when in high-power mode, or a **minimum of 12 feet** when in low-power mode. **Portable radios** should be kept a **minimum of 6 feet** from the RadioPro IP Gateway.

Lightning and Fire Protection

Lightning protection should be implemented at both the equipment and at the point of entry of the building. Lightning protection and power transient protection should be implemented to reduce the risk of fire caused by these phenomena. Circuit breakers and fuses offer the best methods for preventing extended over-current and over-voltage conditions.

Power Requirements

When using the supplied AC power adapter, each IP Gateway requires 100-240VAC, 200mA maximum.

When connecting a DC supply directly to the IP Gateway, each IP Gateway requires the following input, depending on the IP Gateway Serial Number:

<i>IP Gateway Serial Numbers</i>	<i>Voltage Range</i>
Standard	+11.5 to +12.5 VDC
With optional Extended Input Range (S3-xxxx) Available for SN 3154 and newer	+12.0 to +32.0 VDC

Battery Backup Compatibility

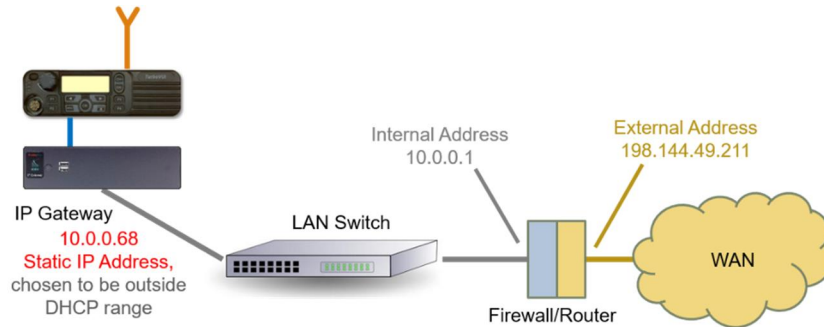
Since the input for the standard gateway power supply has a very narrow voltage range, it will not operate with the typically +13.8Vdc battery backup charging voltage. Therefore, the extended range power supply will be required to operate the gateway on systems using battery backup.

1.4 RadioPro 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.) See section [6.4 Appendix 6 System Compatibility Considerations](#) on page 40 for more details.

1.5 Static IP Address

Each RadioPro IP Gateway **requires a static IP address**. The IP Gateway must have IP Network Parameters configured using ICU.exe (IP Configuration Utility) before connecting to an active network. Contact the IT administrator in order to provide a static IP Address for each RadioPro IP Gateway, along with its Subnet Mask and Default Gateway.



1.6 Accessing the RadioPro IP Gateway using Port Forwarding

If RadioPro clients (such as Dispatch, Solo, Talk, or Talk for Mobile) will access an IP Gateway from a different IP network, then the IT Administrator must configure port forwarding within the firewall or router(s) that separates the RadioPro IP Gateway from the clients. This is also true when one or more of the clients listed above will connect to a RadioPro IP Gateway from the Internet. See

Step 5. Configure Port Forwarding on Firewall Device on Page 36 for more information.

1.7 Licensing

RadioPro Dispatch Clients

Each PC that runs the RadioPro Dispatch client requires a unique software license file to be imported during installation of the software. The license file specifies the number of IP Gateways that a RadioPro Dispatch console can connect to, as well as licensing for GPS and Text Messaging options. Connections for additional IP Gateways can be purchased and added to the license file at any time.

RadioPro Solo and Talk clients for PC, and RadioPro Talk for Mobile apps

For client types other than RadioPro Dispatch, a license file is factory-installed in the IP Gateway, and allows connections from Solo and Talk clients (for PCs and Notebooks) and Talk for Mobile apps (for Android™ and iPhone™ /iPad™). Solo, Talk, and Talk for Mobile licenses can be purchased when the IP Gateway is purchased, and can easily be added to an IP Gateway that is already installed. The number of Solo, Talk, and Talk for Mobile licenses on the license file is the maximum number of simultaneous connections from users of these client applications.

The number of Solo, Talk, and Talk for Mobile licenses installed on the IP Gateway is indicated on the serial number label located on the bottom of the IP Gateway. It can also be determined using the ICU.exe utility. See

Step 3. Configure RadioPro IP Gateway on Page [30](#) for more details.

2. WHAT IS INCLUDED

2.1 RadioPro IP Gateway Kit

The RadioPro IP Gateway (Part # S2-61815) includes the following items:

<i>CTI Part #</i>	<i>Description</i>	<i>Notes</i>
S2-61815	RadioPro IP Gateway	Includes power supply
S2-61790	CD, RadioPro IP Gateway	Contains Installation Guide, ICU.exe (for configuring IP Gateway), and Solo and Talk client installation programs.
89-10712	Cable, Cat 5 RJ45, 10 ft	Can be used to connect IP Gateway to LAN

Note: ICU.exe (IP Configuration Utility) is available on either of the following distribution CDs:

- **RadioPro IP Gateway** Part Number S2-61790. This CD contains an executable file that must be copied to a writeable disk before running. (The ICU cannot be run directly from the CD.)
- **RadioPro Dispatch** Part Number S2-61791. This CD contains an installer program that will install the RadioPro Dispatch Client Software and the ICU onto the PC. Following the installation from the distribution CD, this utility can be located by clicking the **Start** menu button, then click on **All Programs**, then click on the **RadioPro Dispatch** folder, then click **RadioPro ICU**.

3. OTHER ITEMS NEEDED

3.1 Radio Interface Cable

A radio interface cable must be ordered for each IP Gateway from the following table:

<i>Control Station Radio</i>	<i>Cable Part #</i>
Motorola XPR4550/5550, DGM5500/8500, DM4000, XiR M8260	S2-61431
Kenwood NEXEDGE NX-700/800/5700/5800	S2-61769
Kenwood NEXEDGE NX-720/820	S2-61890

Other cables are available to connect a dedicated data revert cable. Contact CTI for more information.

3.2 Control Station Radio

Each Control Station radio used for voice requires one IP Gateway. The control station radio connected to the IP Gateway **must at least have the minimum firmware version listed below**. Motorola's CPS (Customer Programming Software) or Kenwood's FPU (Field Programming Unit) software will be needed to configure the control station radio.

<i>Control Station Radio</i>	<i>Minimum Version</i>	<i>CPS or FPU</i>
Motorola MOTOTRBO in Conventional, IPSC, Cap+, or LCP	1.08.0	CPS
Motorola MOTOTRBO in Connect Plus mode	2.2.0	CPS
Motorola MOTOTRBO Connect Plus Option Board	1.3.0	CPS
Kenwood NEXEDGE NX-700/800 or NX-720/820	3.21.00	KPG-111DN
Kenwood NEXEDGE NX-5700/5800	2.31.00	KPG-D1N

3.3 Radio Programming Cable

A radio programming cable is required to configure the Control Station radio.

Note: A programming cable connected to the front microphone connector on the Control Station radio may prevent communications to a RadioPro IP Gateway from the Rear Accessory Connector. **Therefore, when a cable is connected to the Rear Accessory Connector to connect a RadioPro IP Gateway or a PC (during programming), ensure that the programming cable has been disconnected from the front microphone connector.**

3.5 Laptop or PC

A laptop or PC will be needed to run the ICU.exe utility mentioned in [Section 1.1 System Components](#) starting on page 5.

4. CONFIGURATION AND INSTALLATION STEPS: OUTLINE

Use the steps in the following table to install a RadioPro System. Each step is discussed in detail starting on Page 14. Following installation of the IP Gateway in Step 5, at least one Client must be installed from Step 6.

Step #	Description	<i>Kenwood NEXEDGE NX-7xx/8xx</i>
1a	Configure Control Station Radio(s) for Voice	S2-61904, page 14 IP Gateway Installation
1b	Configure Control Station Radio(s) for Data	S2-61904, page 21 IP Gateway Installation
1d	Configure Subscriber Radios for ARS, GPS, and TMS	S2-61904, page 22 IP Gateway Installation
2	Connect RadioPro IP Gateway to Control Station Radio	S2-61904, page 29 IP Gateway Installation
3	Configure RadioPro IP Gateway(s) using ICU.exe	S2-61904, page 30 IP Gateway Installation Guide
4	Connect RadioPro IP Gateway to IP Network	S2-61904, page 35 IP Gateway Installation Guide
5	Configure Port Forwarding on Firewalls/Routers	S2-61904, page 36 IP Gateway Installation Guide (Required only if RadioPro client is outside the LAN)
6a	Install and configure RadioPro Solo and/or Talk client applications	S2-61568 Solo Client Installation Guide (Optional)
6b	Install and configure RadioPro Dispatch client applications	S2-61785 Dispatch Client Installation Guide (Optional)
6c	Install and configure RadioPro Talk for Mobile apps	S2-61787 Talk for Mobile App Installation Guide (Optional)

Step 1a. for **NEXEDGE NX-7xx/8xx**: Configure the Voice Control Station Radio(s) using Kenwood FPU



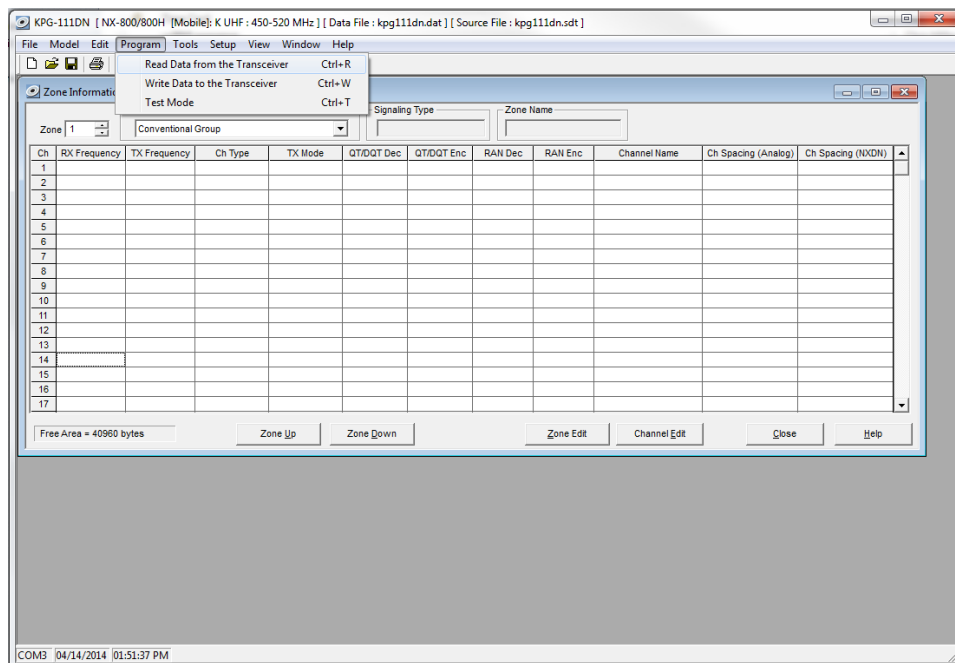
(For NX-5700/5800 radios see document # S2-61905.)

Radio models NX-700/800 or NX-720/820 can be used as a control station radio. The use of an NX-720/820 requires modification to the option jumpers located on the radio's Tx/Rx unit. Therefore, the NX-700/800 is easier to implement since it does not require internal modifications. See [Appendix - Radio Interface Cables](#) for more details.

Use the KPG-111DN **FPU** (Kenwood's NEXEDGE Field Programming Utility) configuration software for NX-7x0/8x0 radios) to configure NEXEDGE radio parameters using the following steps.

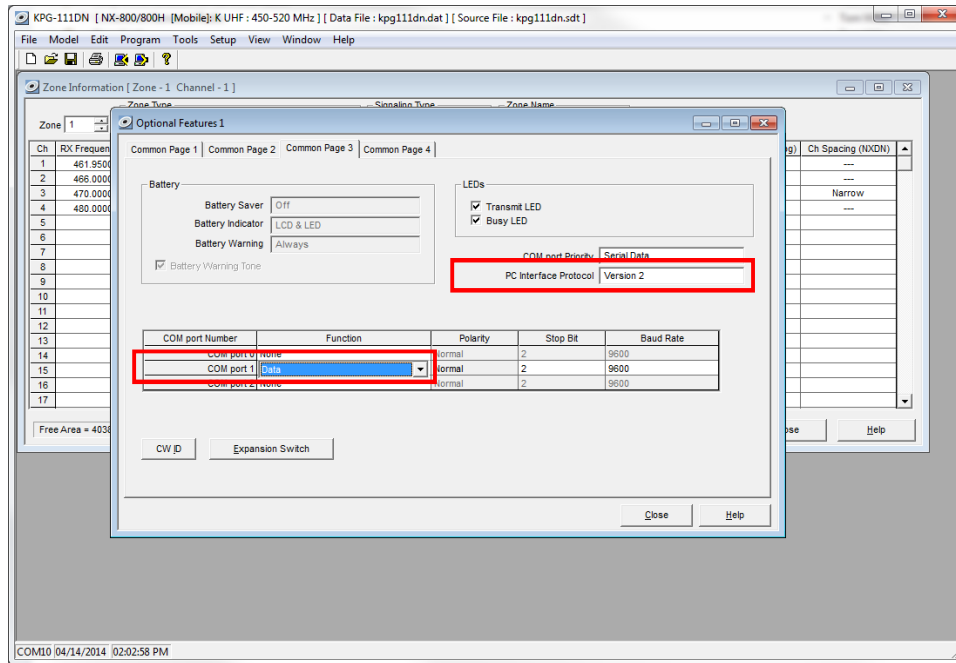
1. Configure the control station as any other radio

- Using a Kenwood programming cable, connect the NX-700/800 Control Station radio to a PC or Notebook that has the correct Kenwood FPU version (KPG-111DN in this case).
- Open the **KPG-111DN FPU**.
- Ensure that the correct COM port is selected by going to the **Setup > COM Port** menu.
- Then, from the **Program** menu, select **Read Data from the Transceiver** as shown below.
- After the data has been read, use **File > Import** to load all of the previously saved settings required for the radio system. Parameters may also be entered manually.

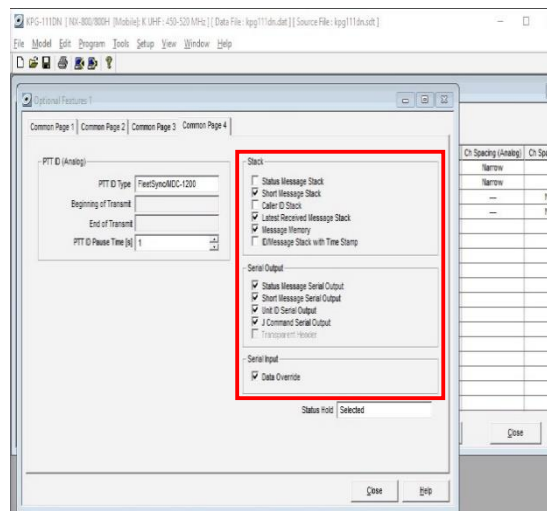


2. Configure the Data Port

- Open the **Option Features 1** settings window using the menu commands: **Edit > Optional Features > Optional Features 1**.
- Select the **Common Page 3** tab, and then under the **Function** column for **COM port 1** in the table as shown below, select **Data + GPS Data Output**.
- For the **PC Interface Protocol** parameter, select **Version 2**.
Note: Selecting 0Version 10 will prevent the IP Gateway from functioning properly.

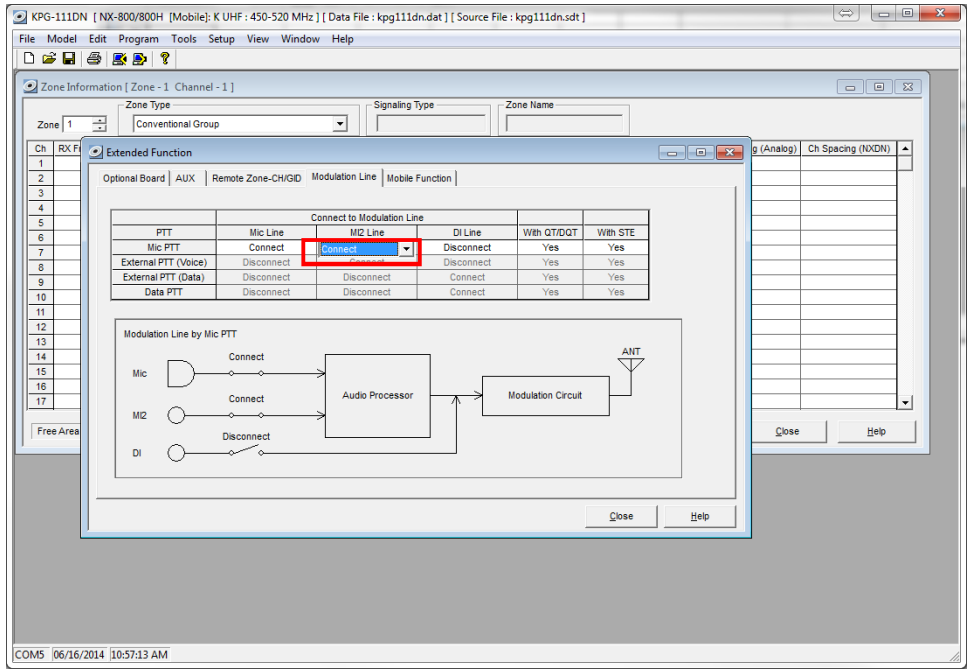


- Select the **Common Page 4** tab.
 - Enable Stack** options **Short Message Stack**, **Latest Received Message Stack**, and **Message Memory** by changing them to **Checked**.
 - Enable** all of the options for both the **Serial Output** and **Serial Input** groups by changing them all to **Checked**.

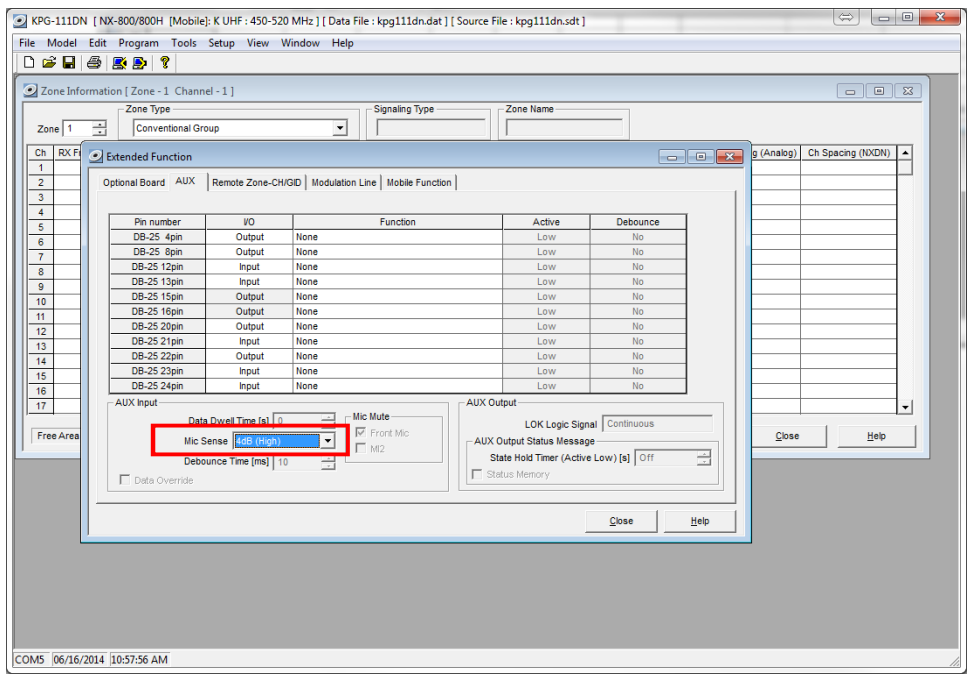


3. Configure Sound Options

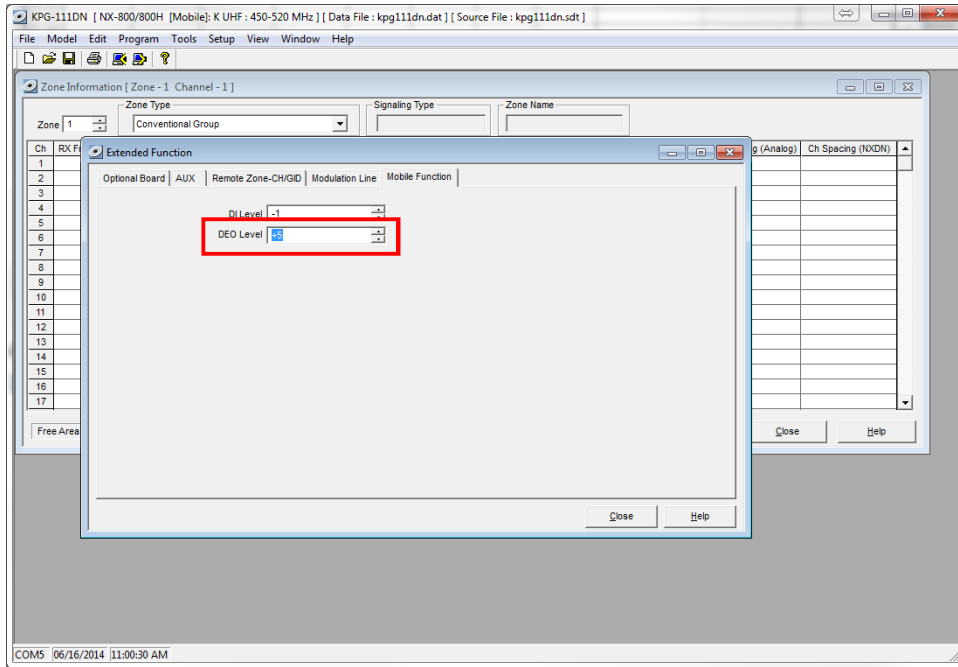
- a. Open the **Extended Function** window by using the menu commands: **Edit > Extended Function**.
- b. In the **Modulation Line** tab, **MI2** column, and **Mic PTT** row, select **Connect** from the drop-down list as shown below.



- c. In the **AUX** tab, for **Mic Sense**, select **4dB (High)** as shown below.



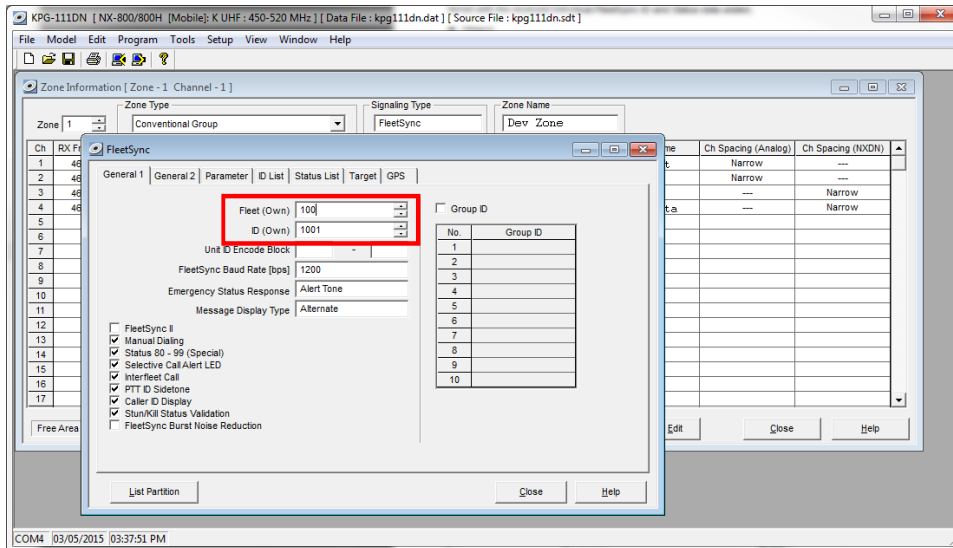
- d. In the **Mobile Function** tab, for **DEO Level** (the level coming into the computer), select **+5** as shown below. For either **DI** or **DEO** sound settings, levels may be adjusted as needed.



4. Configure FleetSync settings

Note: Even if the radio is being used in analog mode without FleetSync, or in digital mode with NXDN, a FleetSync ID must be assigned. Not entering an ID will prevent RadioPro from functioning properly.

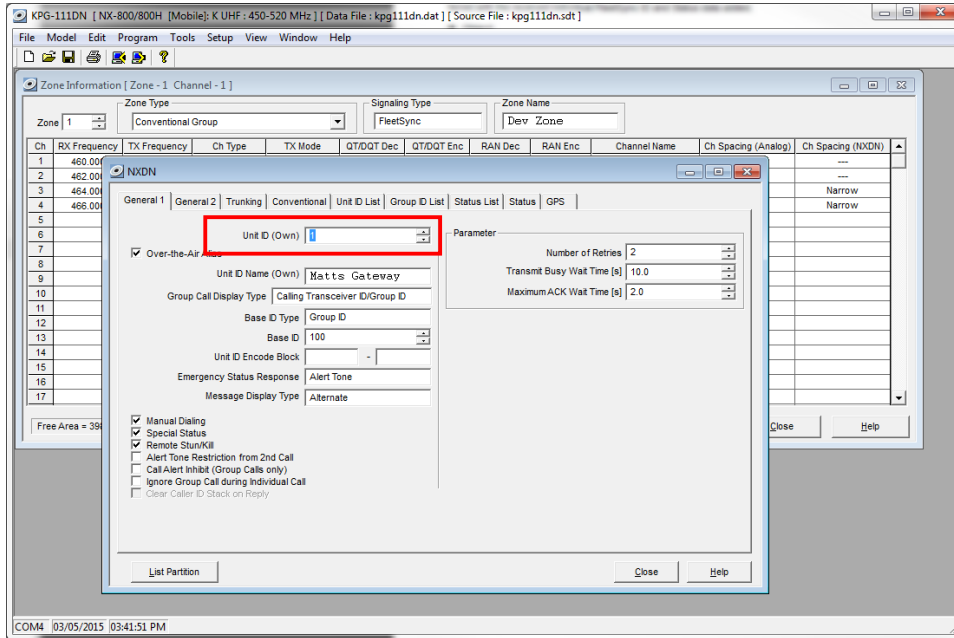
- a. Open the **FleetSync** window by using the menu commands: **Edit > FleetSync**
- b. In the **General 1** tab, enter a value for **Fleet (Own)** and **ID (Own)**. (Note: These do not have to be used elsewhere, but they must have an assigned value.)



5. *Configure NXDN settings*

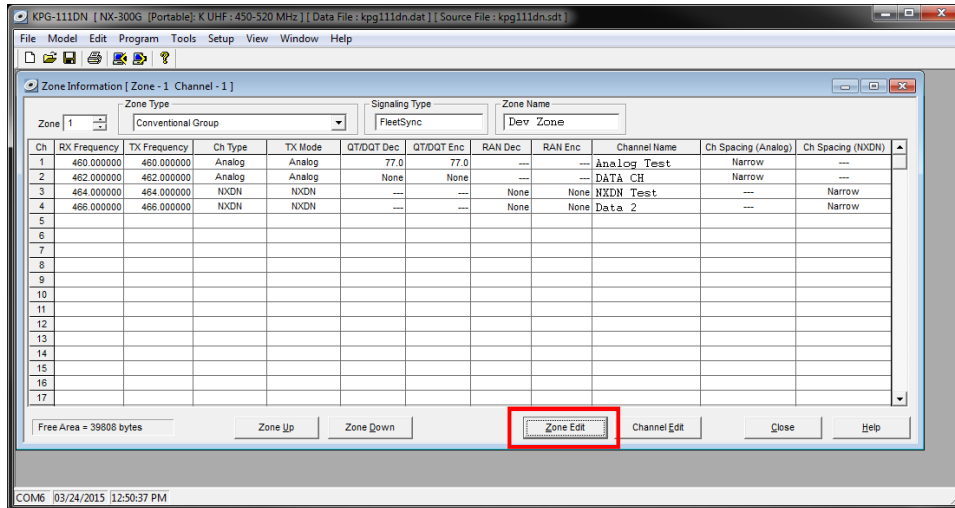
Note: Even if the radio is being used in analog mode without FleetSync, a FleetSync ID must be assigned. Not entering an ID will prevent RadioPro from functioning properly.

- a. Open the **NXDN** window by using the menu commands: **Edit > NXDN**
- b. In the **General 1** tab, enter a value for **Unit ID (Own)**.

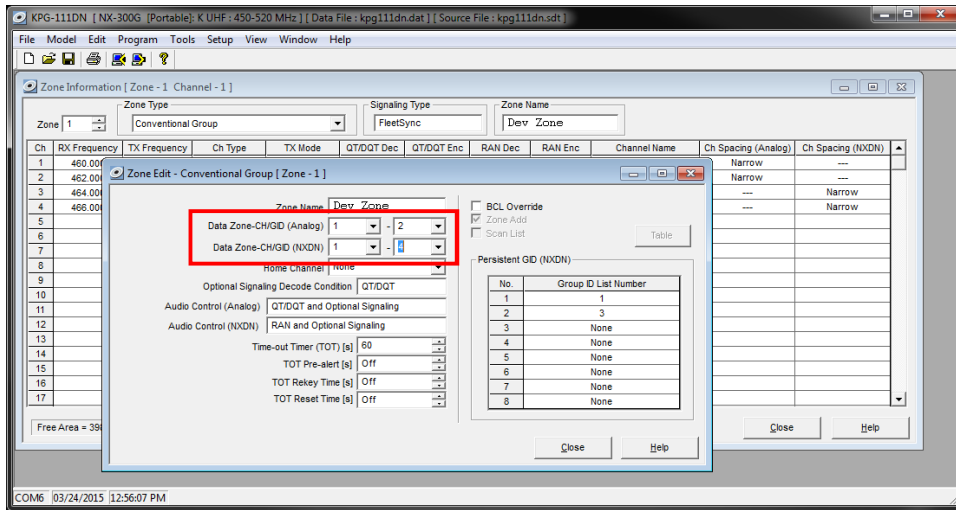


6. *Configure Data settings*

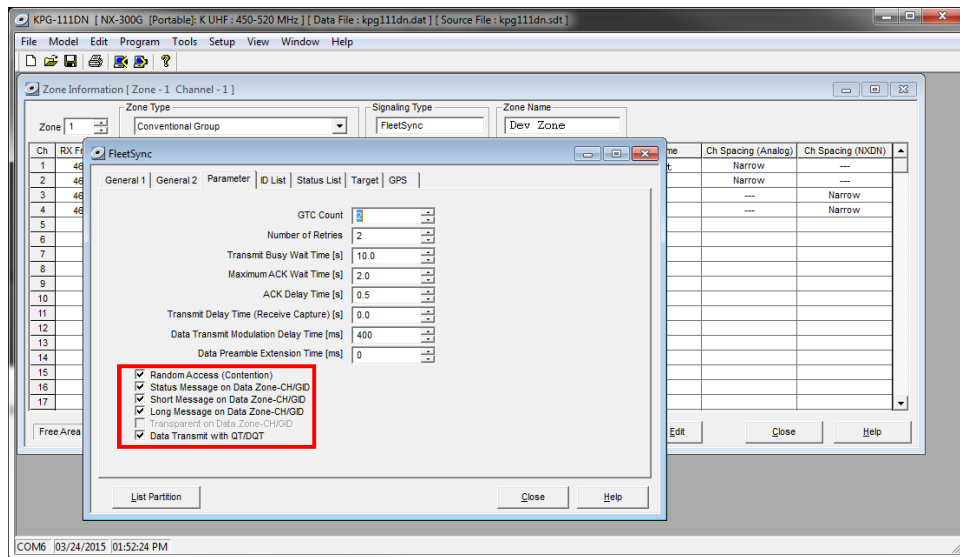
- a. For each zone listed in the **Zone Information** window, use the **Zone Edit** button to open the **Zone Edit** window.



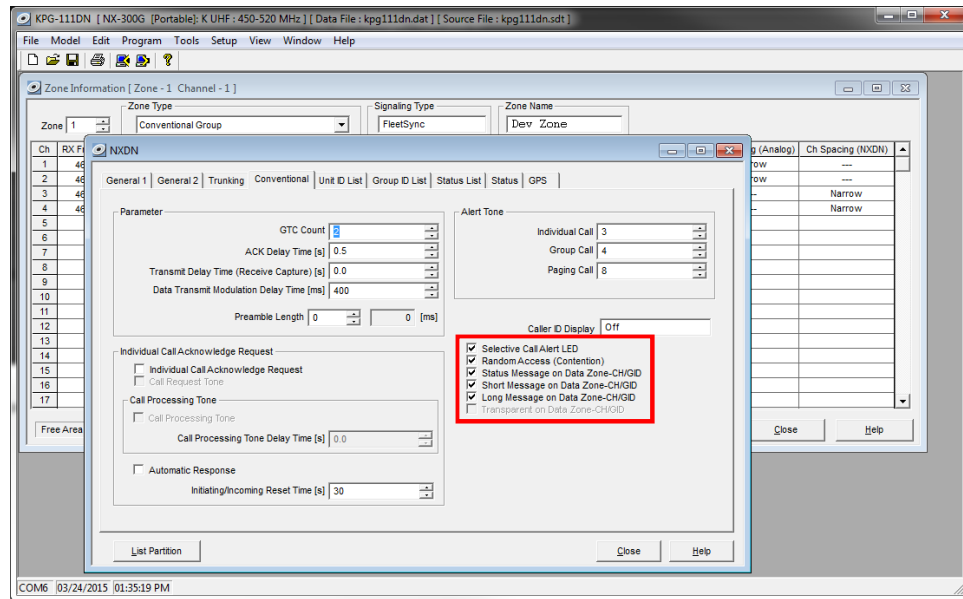
- b. Specify the channel to use for data by assigning the **Data Zone-CH/GID (Analog)** and **Data Zone-CH/GID (Digital)** fields as required for your system.



- i. If using *FleetSync* in a conventional (non-trunked) system, ensure that the correct data will be sent to the Data Channel:
 - Open the **FleetSync** window by using the menu commands: **Edit > FleetSync**
 - In the **Parameter** tab, enable the desired message types to send across the **Data Zone-CH/GID** with a **Check**.



- ii. If using **NXDN** in a conventional system, ensure the correct data will be sent to the Data Channel.
- Open the **NXDN** window by using the menu commands: **Edit > NXDN**
 - In the **Conventional** tab, enable the desired messages to send across the **Data Zone-CH/GID** with a **Check**.

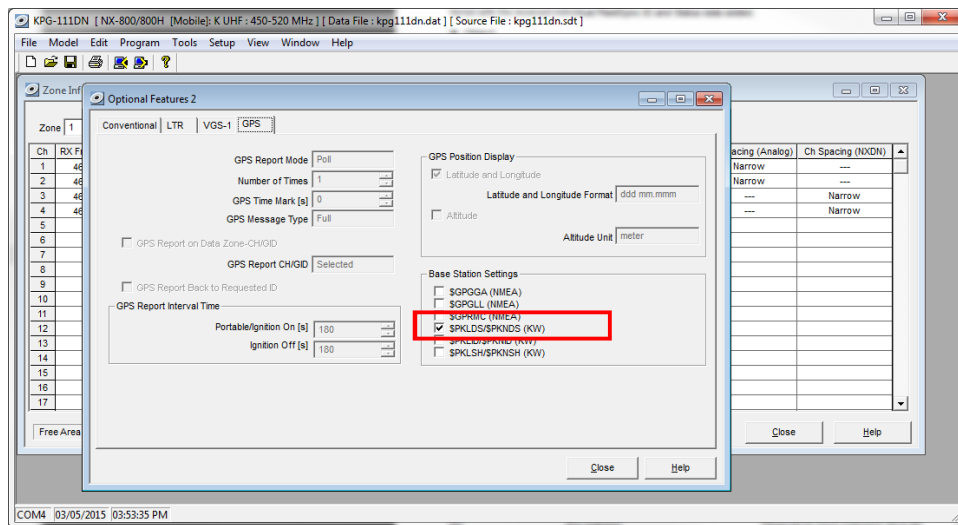


7. Configure GPS settings

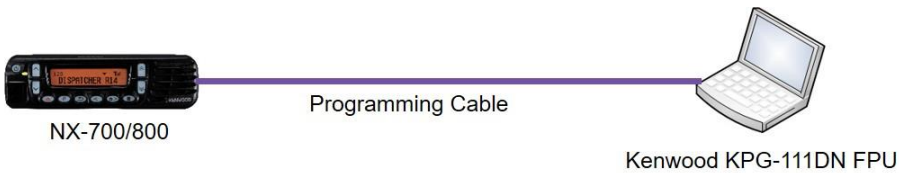
In order for RadioPro to process GPS information from subscriber radios, the control station radio must know what data to send to the IP Gateway.

- a. Open the **Optional Features 2** window by using the menu commands: **Edit > Optional Features 2**
- b. In the **GPS** tab, **Base Station Settings** section, enable the option for **\$PKLDS/\$PKNDS (KW)** with a **Check**.

Note: Not selecting this option will result in GPS data not being sent to the RadioPro IP Gateway.



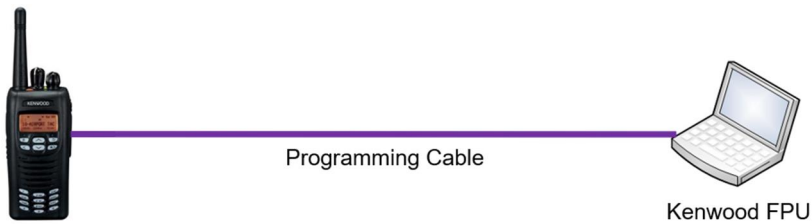
Step 1b. for **NEXEDGE NX-7xx/8xx**: Configure the Data Revert Control Station Radio(s) using Kenwood FPU



If you are using a Data Revert radio, follow the same steps for configuring the radio as you would for the Voice Radio with the following exceptions:

- Because the Data Revert Radio does not deal with audio, you may skip the steps on page [16](#) for *Configure Sound Options*.
- Because the Data Revert Radio will only receive GPS data, you may skip the steps on page [18](#) for *Configure Data settings*.
- **Be certain to follow steps described on page [20](#), *Configure GPS Settings*.**
- Because *Channel Steering* only affects the Voice Radio, program only the data channel into the radio.

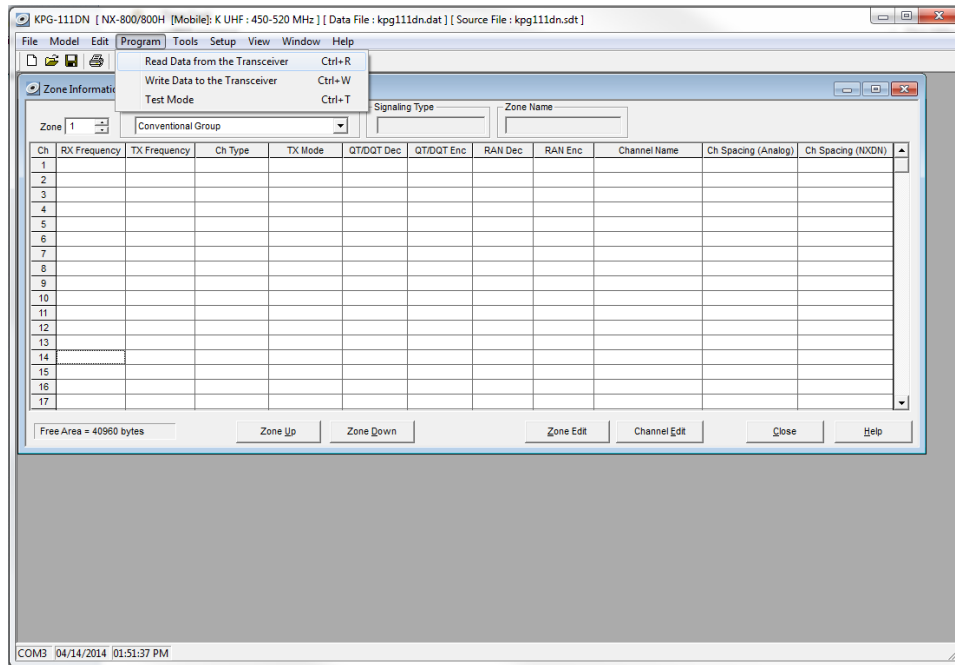
Step 1d. for **NEXEDGE NX-7xx/8xx**: Configure Subscriber Radios using the Kenwood FPU Software



Use the **FPU** (Kenwood's NEXEDGE Field Programming Utility configuration software) to configure NEXEDGE radio parameters using the following steps.

1. *Configure the subscriber radio as any other radio.*

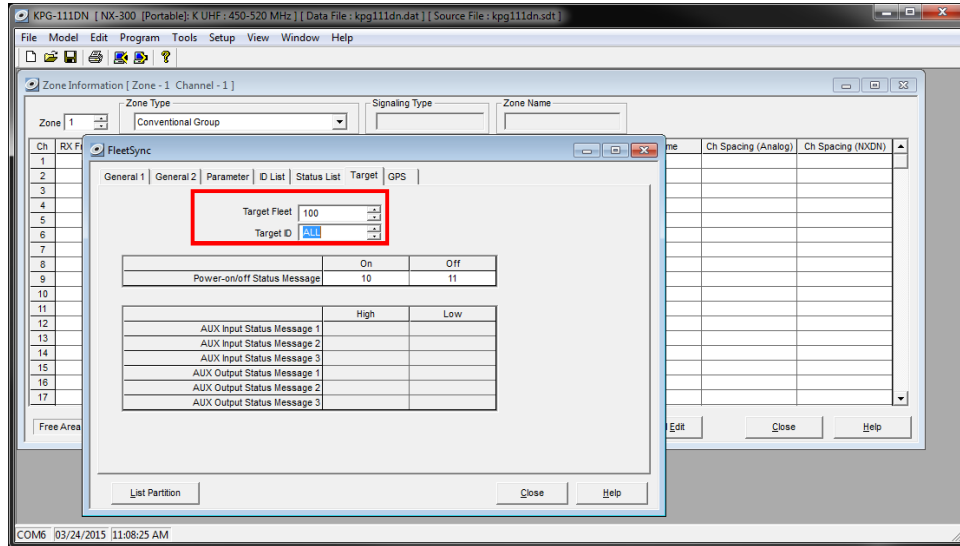
- Using a Kenwood programming cable, connect the NX-700/800 Control Station radio to a PC or Notebook that has the correct Kenwood FPU version (KPG-111DN in this case).
- Open the **KPG-111DN** FPU.
- Ensure that the correct COM port is selected by going to the **Setup > COM port** menu.
- Then, from the **Program** menu, select **Read Data from the Transceiver** as shown below.
- After the data has been read, use **File > Import** to load all of the previously saved settings required for your radio system. Parameters may also be entered manually.



2. Configure Target/Base ID settings.

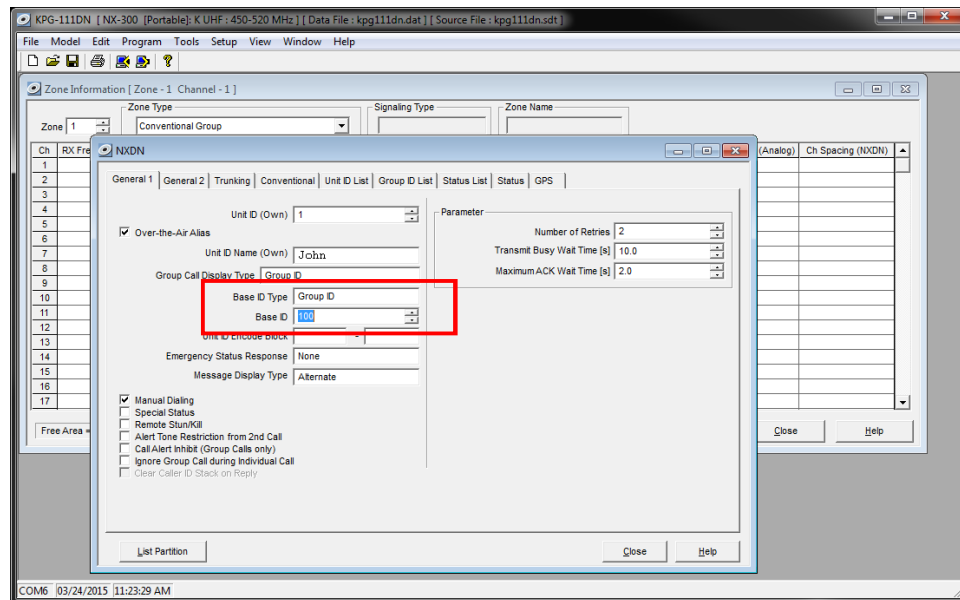
- a. If using *FleetSync*, ensure that the **Target Fleet** and **Target ID** specify the Control Station radio using the following steps:
 - i. Open the **FleetSync** window by using the menu commands: **Edit > FleetSync**
 - ii. In the **Target** tab, enter a value for **Target Fleet** and **Target ID**.

Note: If the target does not include the Control Station(s), data will not appear in RadioPro.



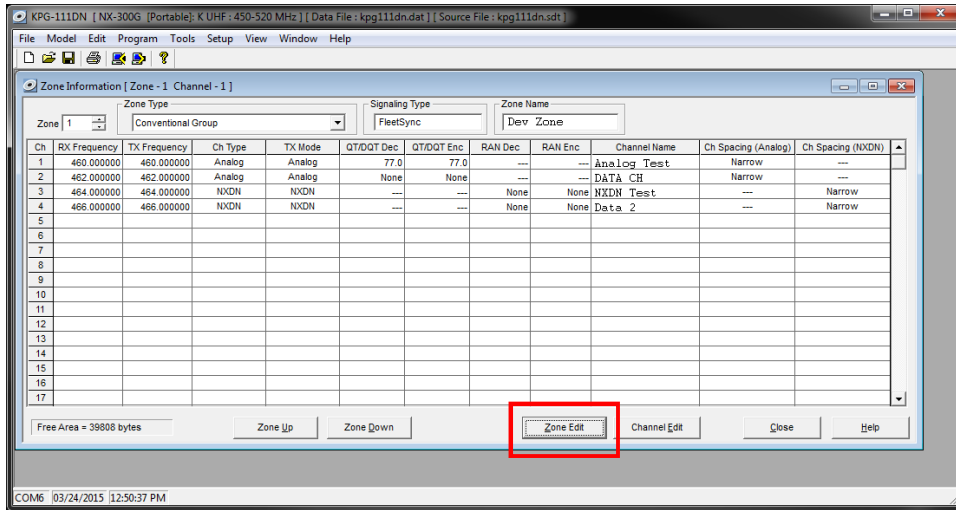
- b. If using *NXDN*, ensure the **Base ID** specifies the Control Station radio using the following steps:
 - i. Open the **NXDN** window by using the menu commands: **Edit > NXDN**
 - ii. In the **General 1** tab, enter a value for **Base ID Type** and **Base ID**.

Note: If the Base ID does not include the Control Station(s), data will not be sent to RadioPro clients.

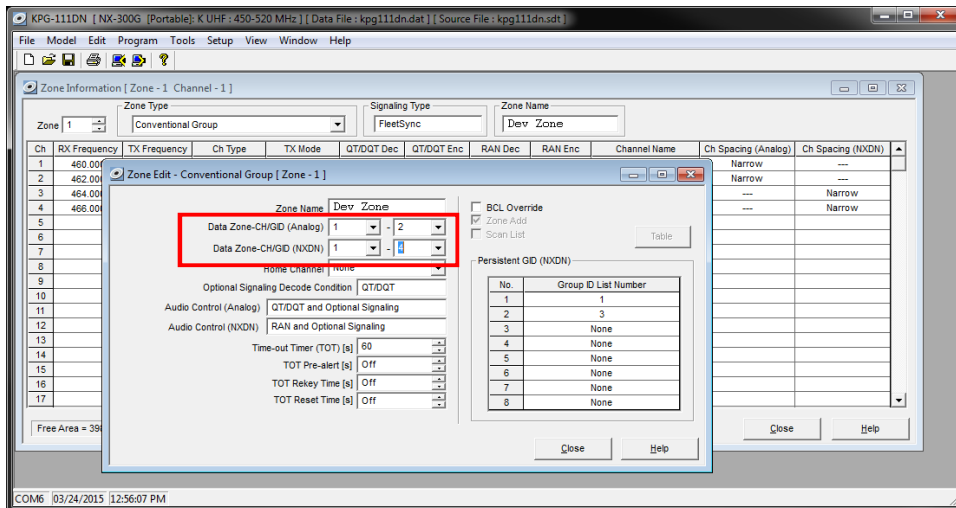


3. Configure Data settings.

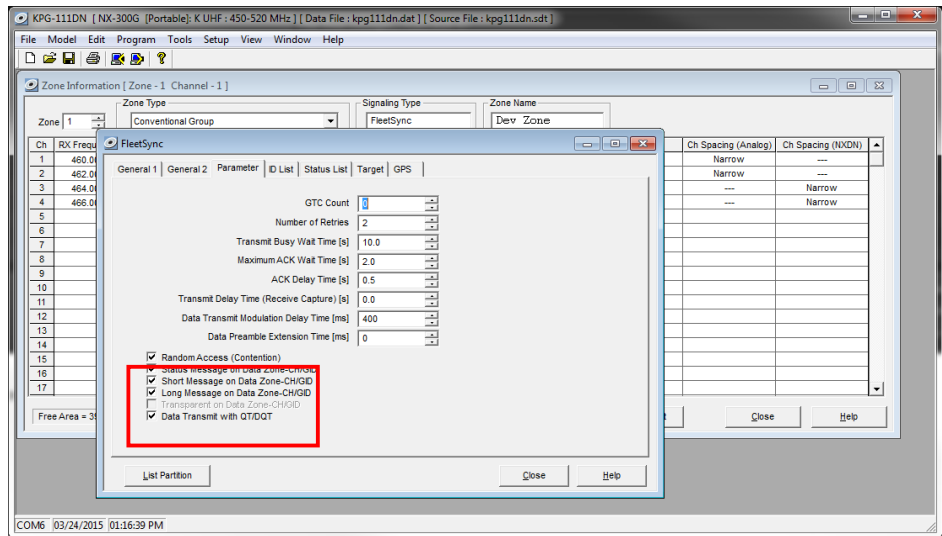
- a. For each zone listed in the **Zone Information** window, use the **Zone Edit** button to open the **Zone Edit** window.



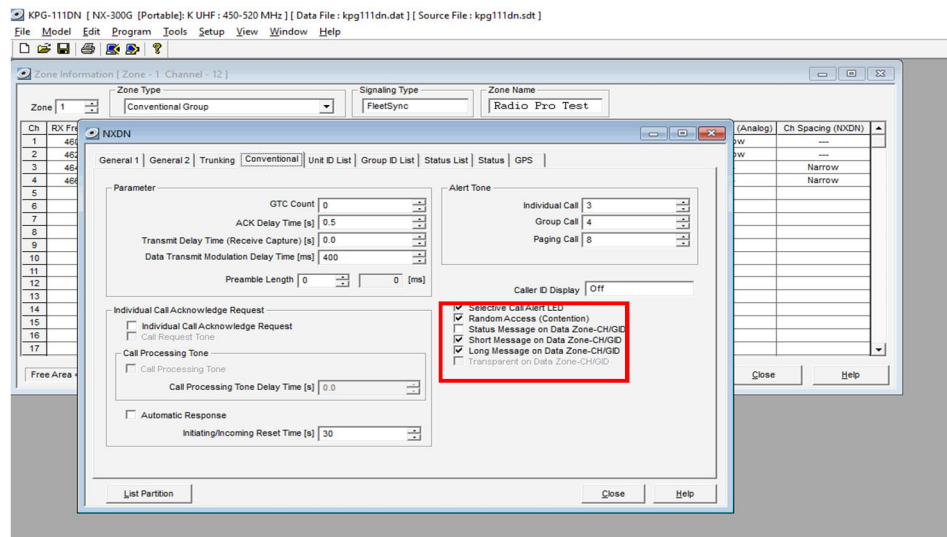
- b. Specify the channel to use for data by assigning the **Data Zone-CH/GID (Analog)** and **Data Zone-CH/GID (Digital)** fields as required for your system. Ensure that the specified channels are the same as specified for the Control Station radio in Step 1a.6.b.



- i. If using *FleetSync* on a conventional (non-trunked) system, ensure that the correct data will be sent to the Data Channel:
 - Open the **FleetSync** window by using the menu commands: **Edit > FleetSync**
 - Open the **Parameter** tab.
 - Enable the desired messages to send across the Data Zone-CH/GID with a **Check**.

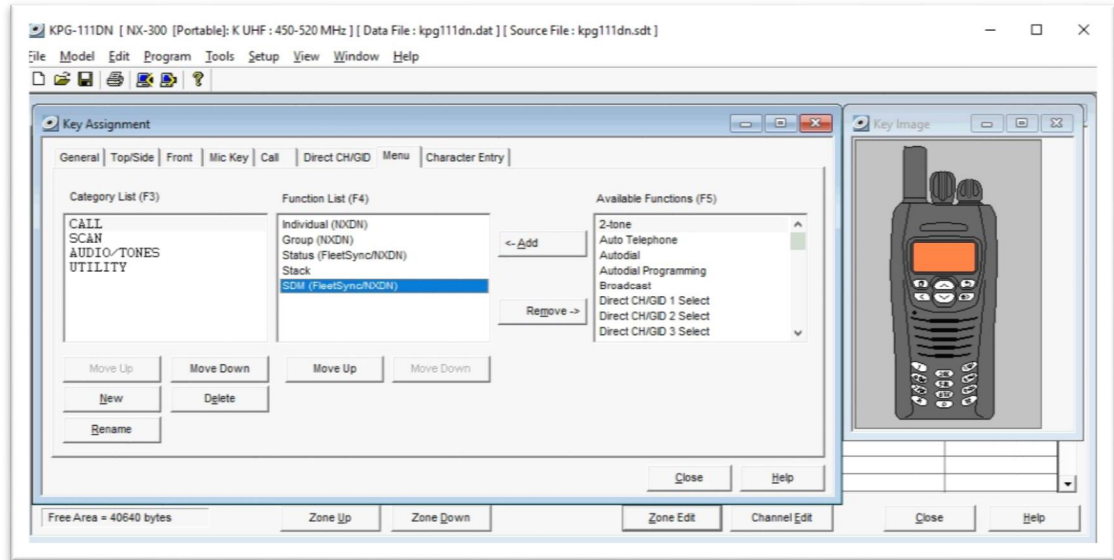


- ii. If using NXDN on a conventional system,
 - Open the **NXDN** window by using the menu commands: **Edit > NXDN**
 - Open the **Conventional** tab
 - Enable the desired messages to send across the Data Zone-CH/GID with a Check.
 - Disabling "Status message on Data Zone-CH/GID" will keep the radio check on the voice channel.



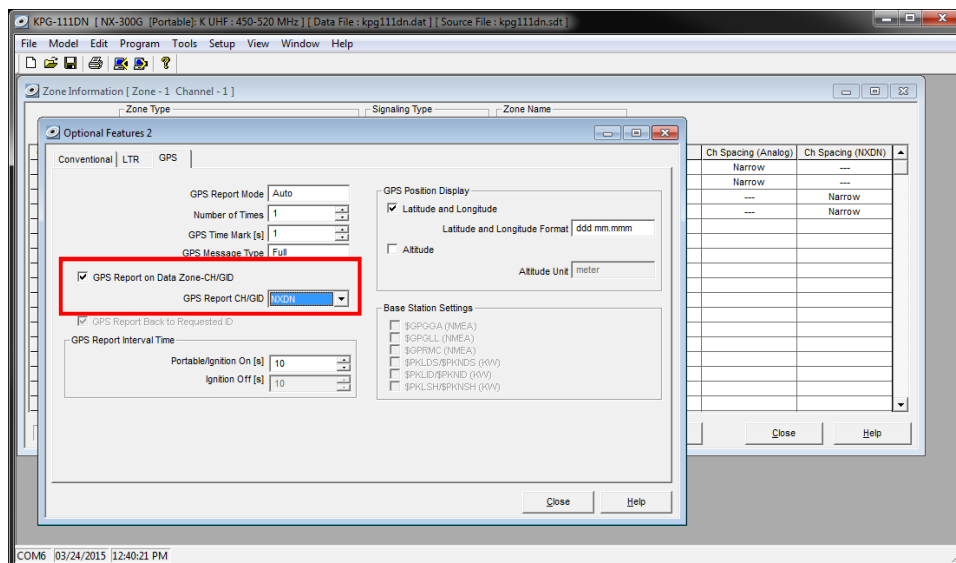
4. Configure Text Message Settings.

- Open the **Key Assignment** window by using the menu commands: **Edit > Key Assignment**
- In the **Menu** tab, choose **Call** in the **Category List**, select **SDM (FleetSync/NXDN)** in the **Function List**, and then click the **Add** button.



5. Configure the GPS settings.

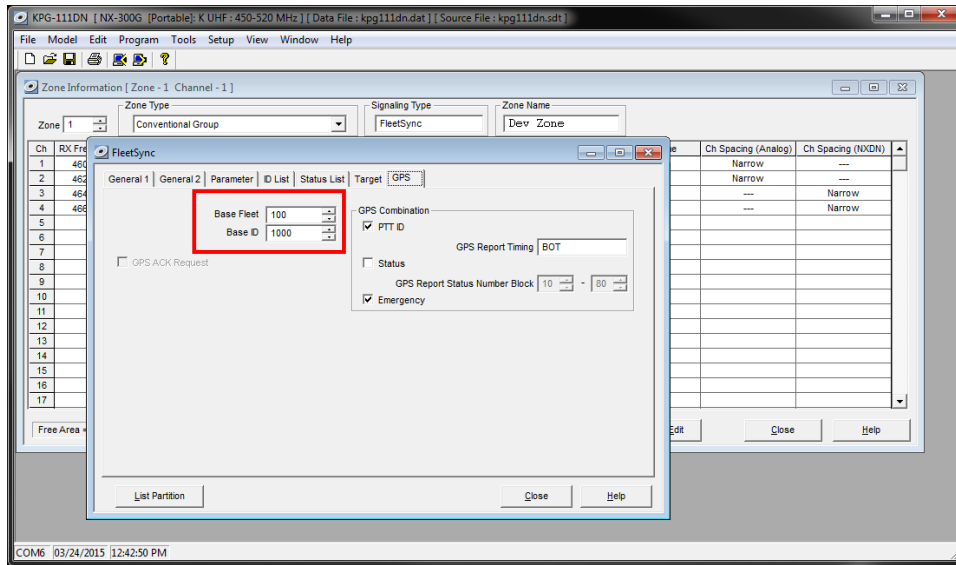
- If using GPS, configure the desired behavior for the radio by using the menu commands **Edit > Optional Features > Optional Features 2** and going to the **GPS** tab.
- If GPS data should be sent on another channel, enable **GPS Report on Data Zone-CH/GID** with a **Check**, and then select the correct channel to use in the **GPS Report CH/GID** box.



- If using GPS with FleetSync, ensure the GPS Base Fleet and Base ID include the Control Station radio using the following steps.
- Open the **FleetSync** window by using the menu commands: **Edit > FleetSync**

e. In the **GPS** tab, enter a value for **Base Fleet** and **Base ID**.

Note: If the Base ID does not include the Control Station(s), data will not appear in RadioPro.

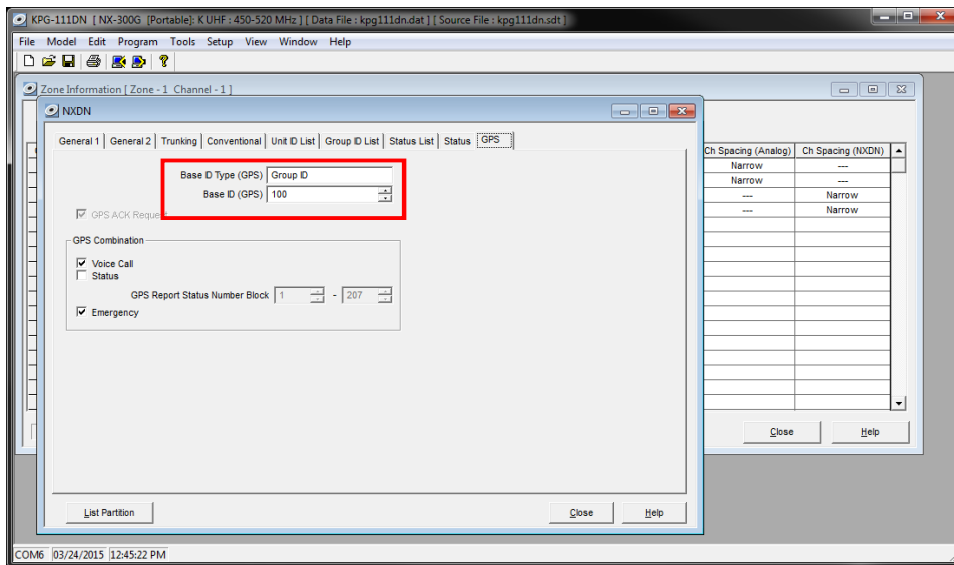


f. If using GPS with NXDN, ensure the GPS Base ID includes the Control Station radio.

i. Open the **NXDN** window by using the menu commands: **Edit > NXDN**

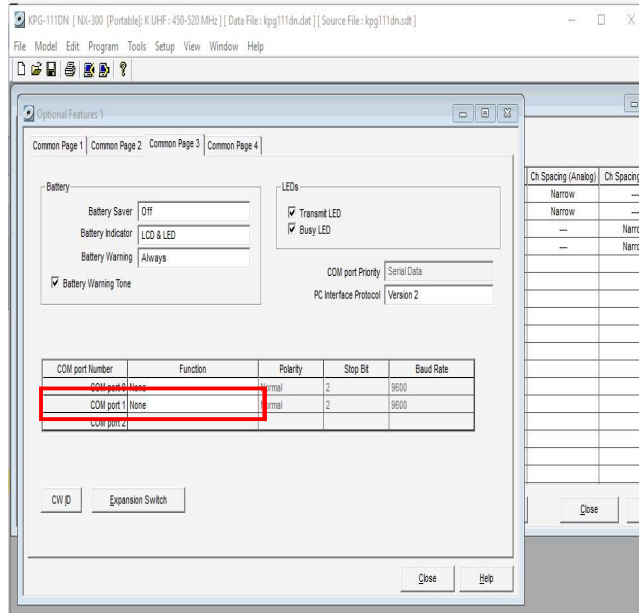
ii. In the **GPS** tab, enter a value for **Base ID Type (GPS)** and **Base ID (GPS)**.

Note: This is the ID the subscriber will to respond to, which will be the ID of the data revert control station radio.

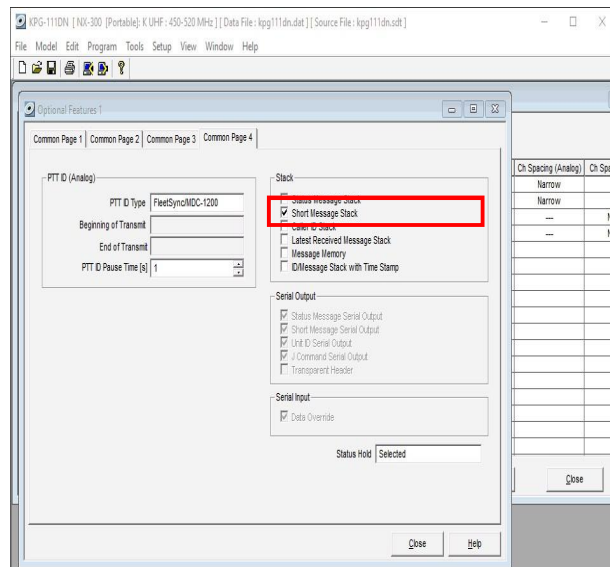


6. Configure the Data Port

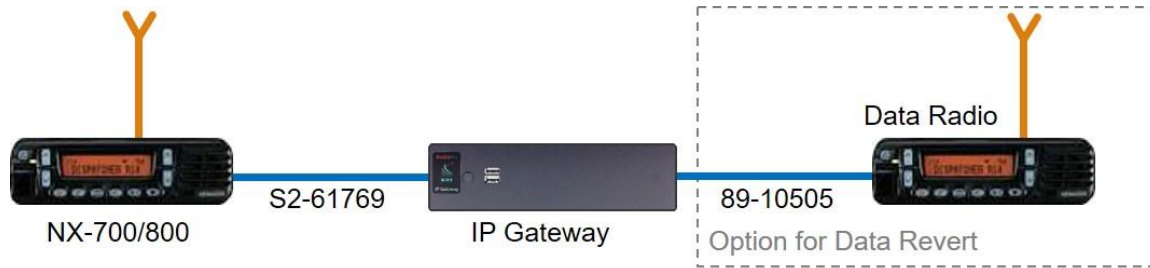
- Open the **Option Features 1** settings window using the menu commands: **Edit > Option Features > Option Features 1**.
- Select the **Common Page 3** tab, and then under the **Function** column for **COM port 1**, select **None**.



- Select the **Common Page 4** tab, and then enable **Short Message Stack** with a **Check**.



Step 2. for **Kenwood NEXEDGE:** Connect RadioPro IP Gateway to Control Station Radio



Note: Before continuing, ensure that the programming cable has been disconnected from the front mic connector.

See Section [6.7 Appendix 6 Radio Interface Cables 6 NEXEDGE NX700/800](#) on Page [43](#) for interface cable details.

Connect the IP Gateway to the Control Station voice radio using the following steps:

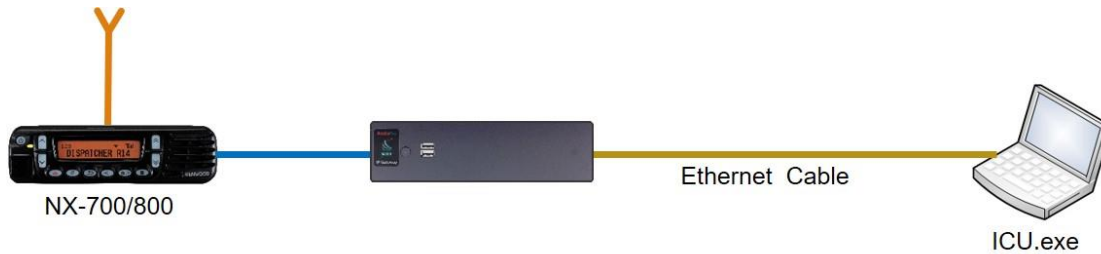
1. Connect the DB-25 side of cable S2-617691 to the DB-25 connector on the rear of the NEXEDGE NX-800 radio.
2. Connect the DE-9 male side of the cable to the DE-9 female connector on the rear of the IP Gateway.
3. Ensure that jack screws on both connectors are tightened to hold connectors in place.

Connect the IP Gateway to the Data Revert Control Station radio using the following steps:

1. Connect the DB-25 side of cable 89-10505 (DB25 Male to DE9 Female) to the DB-25 connector on the rear of the NEXEDGE NX-800 radio.
2. Connect the DE-9 female side of the cable to the DE-9 male connector on the rear of the IP Gateway.
3. Ensure that jack screws on both connectors are tightened to hold connectors in place.

Note: Since the IP Gateway has not yet been configured with appropriate IP parameters, do NOT connect the IP Gateway to an IP network.

Step 3. Configure RadioPro IP Gateway

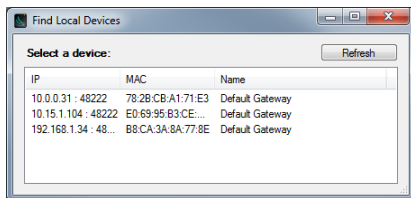
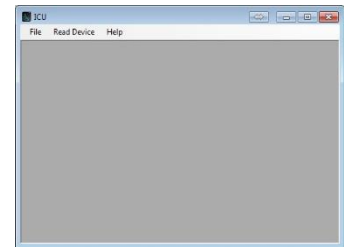


Note: Before continuing, ensure that Wi-Fi connection has been disabled in the PC or Laptop being used to configure the IP Gateway.

The RadioPro ICU (IP Configuration Utility) must be used to configure each RadioPro IP Gateway with the necessary parameters. Configuration of each RadioPro IP Gateway must be performed before connecting the IP Gateway to a local area network.

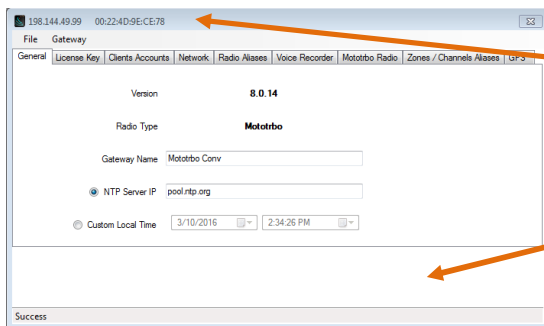
Configure the IP Gateway as follows:

1. Use an Ethernet cable to connect the RJ45 connector on the rear of the RadioPro IP Gateway to a local PC or laptop to be used for configuration.
2. Power up the RadioPro IP Gateway **AND** the Control Station radio.
3. Run the ICU.exe application. (See Section 2. *What is Included* on Page 11. to locate this utility program.) The window shown to the right will be displayed:
4. Click on **Read Device**, and then click **Auto Find** to display the following Configuration window.



If the connected IP Gateway is not listed in the above window, choose **Manual** from the **Read Device** menu. If **Manual** method is used, the IP Address of the IP Gateway must be known. (The Factory Default IP Address is 10.15.1.101). The **Manual** method must be used if the connection between the PC and the IP Gateway involves one or more IP routers or switches.

5. Double-click on a device in the above list to display the following Device Configuration window:



MAC Address

Tip: Expand the window to view the help information near the bottom.

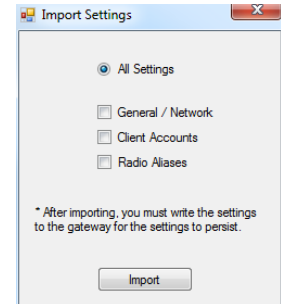
6. The File menu item contains the following functions:

a. Export

Export can be used to save all of the ICU settings for an IP Gateway to a file with an extension of `.icu`. This can be used to create a backup of settings in case the IP Gateway requires replacement.

b. Import

Import can be used to import the entire settings or just a subset of the ICU settings for an IP Gateway. After a file is selected for importing, the **Import Settings** window shown at right will be displayed.



7. Enter appropriate parameters for each of the tabs:

a. General tab

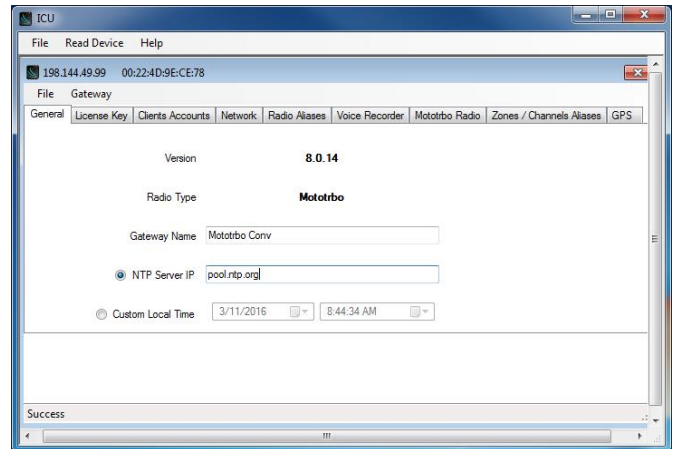
Version indicates the current software version of this RadioPro IP Gateway. RadioPro Software for the IP Gateway and Clients (Dispatch, Solo, Talk, and Talk for Mobile for mobile devices) must all have compatible versions in order to communicate with each other. Compatibility occurs when the first two digits of the version match. (The third digit indicates a minor revision, and does not need to match.)

Radio Type will display the factory configuration for this IP Gateway.

Gateway Name factory default is **Default Gateway**. If RadioPro Dispatch client will be used to connect to this IP Gateway, this name should be changed to a descriptive name that will be recognizable at the RadioPro Dispatch client. Two lines of 24 characters each can be displayed to identify a radio controller in the RadioPro Dispatch client.

NTP Server IP should be enabled if a RadioPro Dispatch client(s) will connect to this IP Gateway, and should contain the IP Address where the Network Time Server is running. If a Network Time Server is not accessible by this IP Gateway on its network, then a Time Server should be installed on an accessible PC; this PC could be one that is running the RadioPro Dispatch Client. Either an IP address or a name recognized by the Domain Name Server can be entered. See [Section 6.5 Appendix 6 Installing a Time Server](#) Page 41 for more details.

Custom Local Time can be used if an NTP Server is not used. Enter the current date and time.

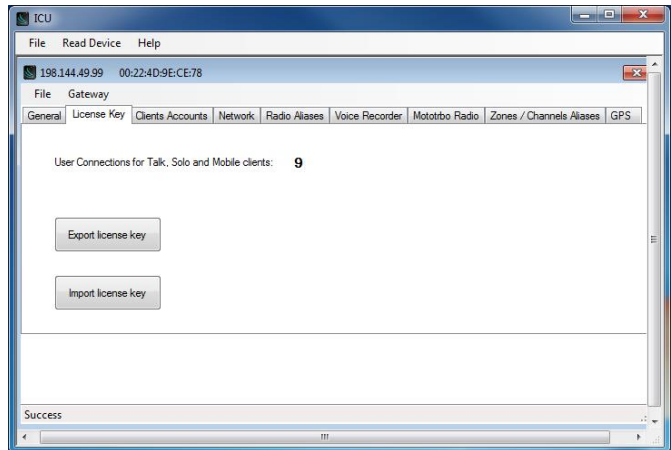


b. License Key tab

This tab is used to transfer the License File to/from the IP Gateway when an upgrade to the License is purchased. The License File contains a value between 1 and 80 specifies the number of simultaneous users allowed to connect to this IP Gateway from RadioPro Solo, Talk, and Talk for Mobile applications.

Use the **Export license key** button to create a file with the current License information. This file can be sent to CTI Products when an upgrade to the number of User Connections is needed.

Use the **Import license key** button to push the upgraded license file to the IP Gateway.



c. Client Accounts tab

Solo/Talk/Talk Mobile Clients

Username and Passwords for Solo, Talk, and Talk for Mobile clients are managed on this tab.

To add a new client account, click the **Add** button. In the **Add account** window, enter the new **Username**, **Password**, and then click the **OK** button.

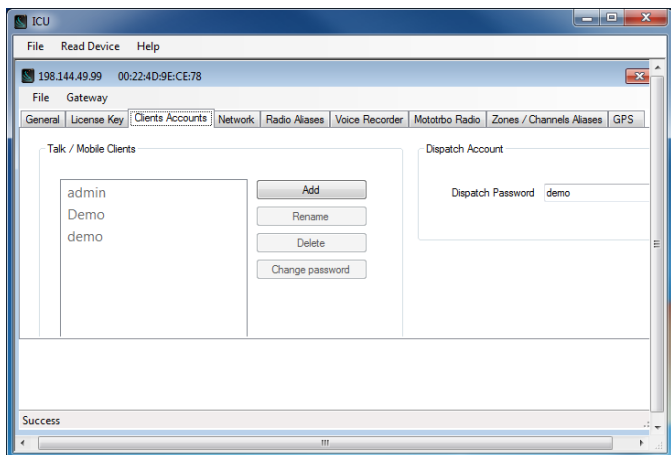
The `admin` client account will be listed first, and is the default account for logging into the IP Gateway from a RadioPro Solo, Talk, or Talk for Mobile client. The `admin` account cannot be

Renamed or Deleted. It is recommended that the password of the `admin` account be changed from its default value of `admin` in order to prevent unauthorized changes. This can be accomplished by selecting `admin` from the list of accounts, and then clicking the **Change password** button. In the **Change password** window, type a new password in the **Password** text box, retype it in the **Retype** text box, and then click the **OK** button.

The `admin` client account is also used when using ICU.exe to write new parameters to the IP Gateway.

Dispatch Account

The Dispatch Password is the password needed for a Dispatch client to connect to this IP Gateway.



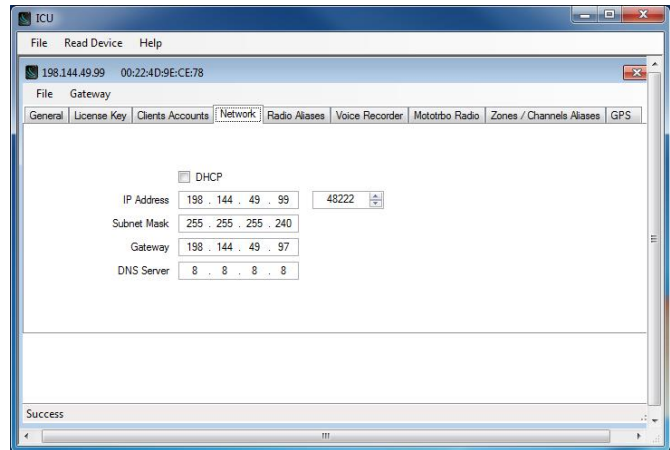
d. Network tab

Do **NOT** use leading zeros for any of the address fields. **DHCP** should **NOT** be selected unless an engineer at CTI Products is consulted.

The default **TCP Port #** is 48222. This can normally be left at its default value.

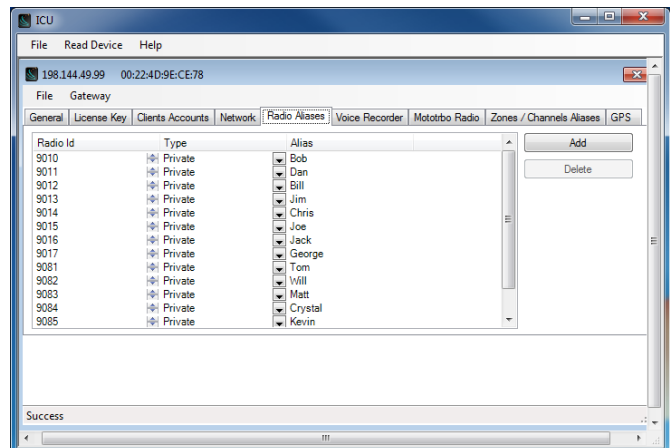
An entry for default **Gateway** is needed only if RadioPro clients (Dispatch, Solo, Talk, Talk for Mobile) will be accessing this IP Gateway from another network, or the Internet.

An entry for **DNS Server** is needed only if an NTP server host name was specified in the General tab (instead of an IP Address). If an NTP server host name is not specified, then **DNS Server** should be blank or **0.0.0.0**.



e. Radio Aliases tab

This tab is used to create Alias Names for radio IDs. The Alias Names listed on this tab will be displayed in the contact list for RadioPro Solo, Talk, and Talk for Mobile clients.

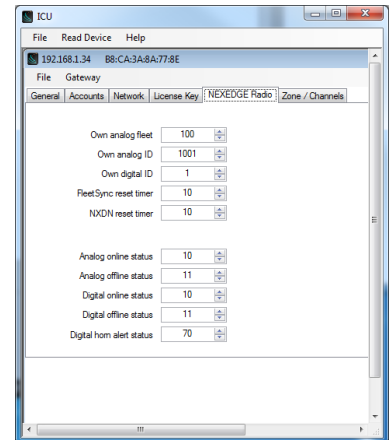


f. NEXEDGE tabs

When an IP Gateway has been licensed for use with a NEXEDGE radio, the following tabs will allow parameter input.

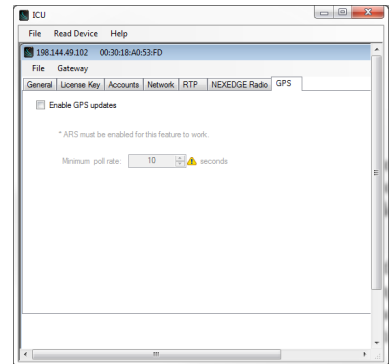
NEXEDGE Radio tab

Enter the appropriate radio ID values for the fields on this tab.

**GPS** tab

If mapping locations of subscribers is required, place a check mark next to **Enable GPS Updates**. Since this option will increase the amount of radio transmissions, leave this unchecked if GPS mapping is not needed.

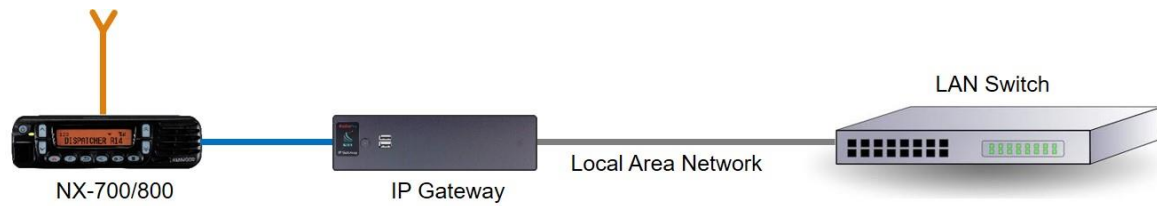
Then choose a **Minimum Poll Rate** to set the minimum time between successive GPS updates. Increasing this parameter will decrease the number of GPS updates, thereby allowing more channel bandwidth for voice conversations.



8. Write settings to the IP Gateway:

- From the **Gateway** menu, click on Write Settings. Enter the Admin **Gateway Password** (factory default password is `admin0`), then close the configuration window for this IP Gateway.
- Remove the Ethernet cable between the RadioPro IP Gateway and the local PC or laptop used for configuration.

Step 4. Connect RadioPro IP Gateway to IP Network

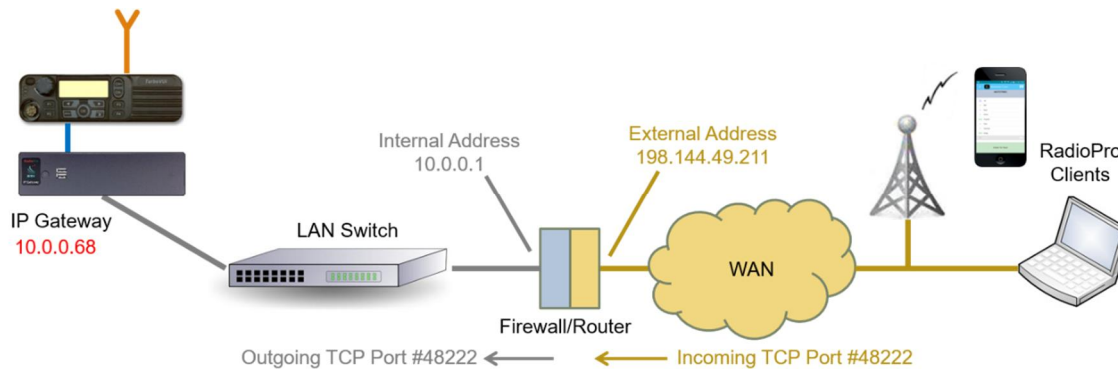


After a RadioPro IP Gateway has been configured using ICU, it is safe to connect to a local area network.

Connect the RadioPro IP Gateway module to the IP network using the following steps:

1. Connect one side of cable 89-10712 (or similar straight-through Cat 5 cable) to the RJ45 connector on the rear of the RadioPro IP Gateway module.
2. Connect the other end of cable 89-10712 to the network switch or router.

Step 5. Configure Port Forwarding on Firewall Device



If RadioPro clients (such as Dispatch, Solo, Talk, or Talk for Mobile) will access an IP Gateway from a different IP network subnet, then the IT Administrator must configure port forwarding within the devices (firewalls or routers) that separate the RadioPro IP Gateway from RadioPro clients. A typical example of this is depicted in the figure above, where an IP Gateway is installed behind a firewall and a RadioPro client is using the Internet to connect to that IP Gateway.

The default IP port used by a RadioPro IP Gateway is **TCP Port 48222**. However, this may be changed using `ICU.exe` on the **Network** tab.

The default IP port used by RadioPro clients is **TCP Port 48222**. If this default port number is to be used, then the parameter entry for the IP address in a RadioPro client is simply the External Address of the Firewall or Router. If, on the other hand, some other port number is to be used, then the parameter entry for the IP address in a RadioPro client must also include that port number as follows:

198.144.49.211:7777

where:

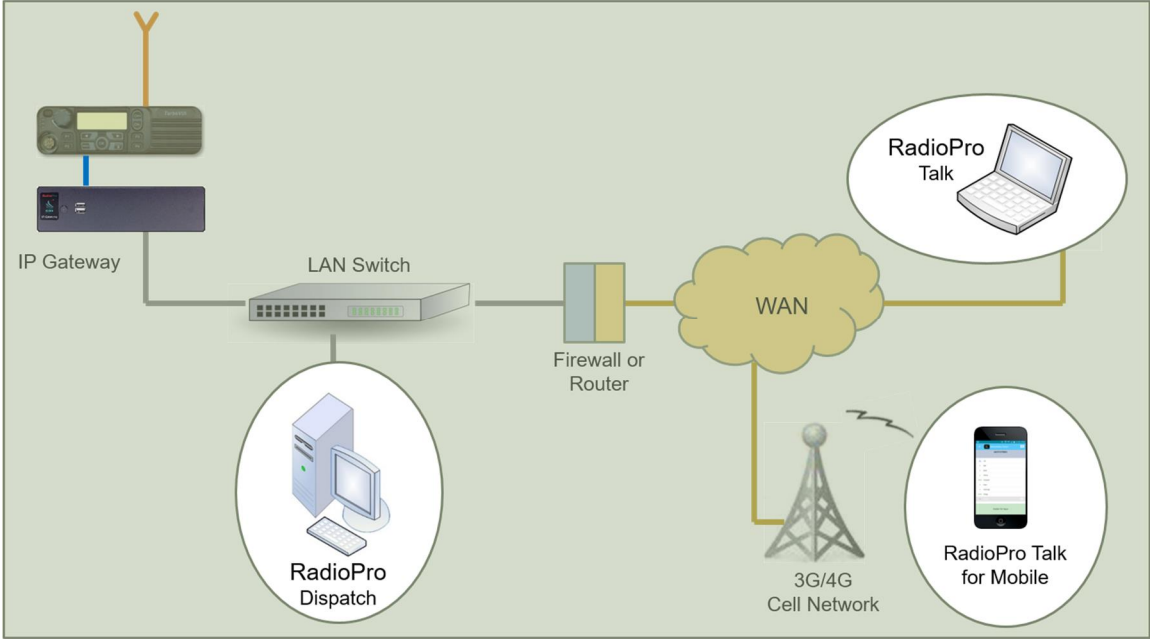
198.144.49.211 is the external or wide-area address of the firewall or router.

7777 is the external port of that firewall used for RadioPro IP Gateway.

If multiple RadioPro IP Gateways are located behind a firewall, they will each need a Port Forwarding rule. In this case, the external port numbers specified for each rule must be unique by specifying individual port numbers.

See http://portforward.com/english/routers/port_forwarding/ for detailed instructions for the specific router in use at your site.

Step 6. Install and Configure RadioPro Clients/Apps



See [Section 1 System Overview](#) on page 5 for a list of documents to be used for installing and configuring the RadioPro software clients for PCs and smart mobile devices.

5. RADIOPRO IP GATEWAY OPERATION

5.1 Power-up

The Power Button can be used to power up or power down the unit by pressing it momentarily.

A watchdog circuit built into the IP Gateway monitors program operation. If the watchdog circuit detects that the program is not functioning correctly, it will re-initialize the IP Gateway. This process may take up to two minutes. During this process, RadioPro Dispatch, Solo, Talk, or Talk for Mobile clients will not have a connection or communication with the Control Station radio.

5.2 Indicators

A blue LED located on the Power Button indicates that power is applied to the IP Gateway.

A red LED located internally, but viewable through the vents on the left side of the IP Gateway indicates the functioning of the Hardware Watchdog as follows:

- Slow Blinking (2 seconds per blink) indicates that the IP Gateway is rebooting. This will normally occur for a maximum of two minutes after power-up.
- Steady illumination indicates that the IP Gateway software and hardware is operating correctly, and follows the Slow Blinking boot-up period.
- Fast Blinking (1 second per blink) indicates that the watch-dog circuitry has detected a problem, and that re-booting will commence within 5 seconds.

6. APPENDIX

6.1 Appendix - RadioPro IP Gateway Specifications

Mechanical and Environmental

Dimensions:	9.0öw x 2.5öh x 7.7öd
Weight:	3 lbs.
Temperature Range:	0-50 °C
Humidity:	10-95% non-condensing

Electrical

AC Input (with included Power Adapter):	100ö240Vac, 60W max, 50-60Hz
DC Input, SNs before 3154:	11.5-12.5Vdc
DC Input, SNs after 3154:	12-32 VDC (optional PS upgrade required)

Service Ports

Port Forwarding (for firewall configuration)	TCP Port 48222 (default)
Ports used by ICU.exe during configuration	UDP Ports 48501 and 48502
Port for Network Time Protocol Service	UDP Port 123
Port used for Remote Desktop Service	TCP Port 48333 (used only when remote technical service is needed)

Miscellaneous

MOTOTRBO interface	DE-9 Female & USB, Cable S2-61431, see Page Error!
<i>Bookmark not defined.</i>	
NEXEDGE NX-7xx/8xx/57xx/58xx interface	DB-25 Female, Cable S2-61769
NEXEDGE NX-720/820 interface	DB-25 Female, Cable S2-61890
Transmit/Receive Impedance - MOTOTRBO	600 ohms
Transmit/Receive Impedance ó Kenwood	10k ohms
Clients Supported	80 Solo, Talk, or Talk for Mobile, plus 12 Dispatch
Power-On	Auto
Network Bandwidth (for each connected client)	2.2k Bytes per Second with audio compression enabled 22k Bytes per Second without audio compression

6.2 Appendix - IP Addressing

Normally, the factory default IP Address programmed into the Control Station radio **should not be changed**. However, it must be on a different subnet than the RadioPro IP Gateway that is connected to it via the Rear Accessory Connector.

For example, if the network's Subnet Mask is 255.255.255.0, then at least one of the first three octets of the MOTOTRBO radio IP address must be different than the RadioPro IP Gateway module IP address.

The following **IS NOT** a valid IP addressing scheme since both devices are on the **SAME** subnet:

	Control Station Radio	RadioPro IP Gateway
IP Address:	192.168.12.2	192.168.12.3
Subnet Mask:	255.255.255.0	255.255.255.0

The following **IS** a valid IP addressing scheme since the devices are on **DIFFERENT** subnets:

	Control Station Radio	RadioPro IP Gateway
IP Address:	192.168. 12 .2	192.168. 10 .3
Subnet Mask:	255.255.255.0	255.255.255.0

For additional information see Cisco's öIP Addressing and Subnetting for New Usersö, Document ID 13788, located at: http://www.cisco.com/en/US/tech/tk365/technologies_tech_note09186a00800a67f5.shtml

6.3 Appendix - Rack Mounting

Rack Shelf

A rack shelf can be used to hold the RadioPro IP Gateway and Control Station radio in a standard 19ö wide rack. The two devices can be located next to each other on the same shelf. The following rack shelf is recommended, but others may be used that have a depth of at least 12ö:

Rack Shelf 2RU x 15ö, CTI Products # S2-61548,

also available as Cable Organizer # QES0319-0215:

<http://www.cableorganizer.com/computer-cabinets/rack-shelves/single-side-non-vented-shelves.html>

6.4 Appendix E System Compatibility Considerations

Use the following table to determine compatibility between RadioPro or TurboVUi IP Gateway and software clients:

	IP Gateway				
	v8.x.x	v7.0.x	v6.0.x	v5.1.x	v5.0.x
Dispatch Client for PC					
Dispatch v8.0.x (Windows 7 or 8)	Yes				
Dispatch v7.0.x (Windows 7 or 8)		Yes	Yes ❶		
Dispatch v6.0.x (Windows XP or 7)		Yes	Yes		
Dispatch v5.1.x (Windows XP or 7)		Yes	Yes	Yes	
Dispatch v5.0.x (Windows XP or 7)					Yes
Solo or Talk Client for PC					
RadioPro Talk (Windows 7 or 8)	Yes	Yes ❷			
TurboVUi Solo (Windows XP or 7)	Yes	Yes	Yes	Yes	Yes
Talk Mobile App for iOS and Android					
RadioPro Talk for Mobile (4 th generation)	Yes				

Notes: ❶ Channel-to-channel patching in RadioPro Dispatch is only available when both IP Gateway and Dispatch software are v7.0.x (or higher).

❷ RadioPro Talk requires minimum IP Gateway v7.0.10.

When upgrading to a new version where RadioPro Clients and IP Gateways are being upgraded, it is usually better to upgrade the IP Gateways before upgrading the Clients.

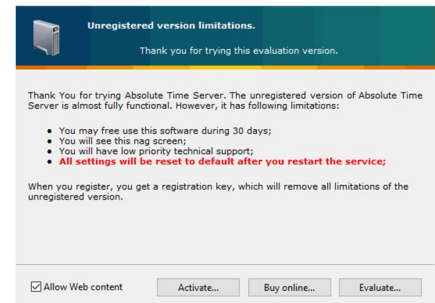
6.5 Appendix E Installing a Time Server

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:

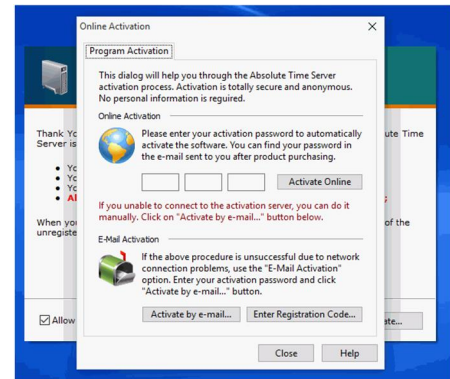
- An existing Time Server on the Local Area Network.
- Public domain Time Server accessed using the Internet.
- Local Time Server installed on a common PC, such as the Dispatch client console PC.

A local time server is available for use if needed, and can be found on the Dispatch client distribution CD, in the Absolute Time Server folder. Perform the following steps to install this time server:

1. Double-click on the file "Absolute-Time-Server-vx.x.xxx.msi".
The window shown at right will be displayed:



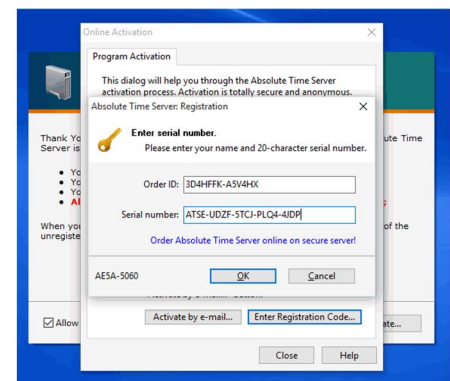
2. On the above window, click the **Activate** button to display the **Activation** window shown at right.



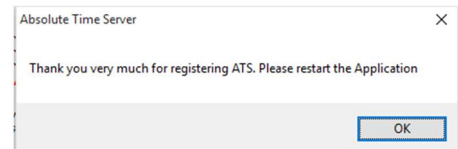
3. On the above window, click the **Enter Registration Code** button to display the registration windows shown at right. Enter the following parameters:

Order ID: 3D4HFFK-A5V4HX

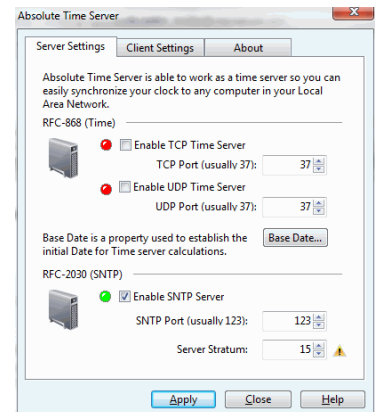
Serial Number: ATSE-UDZF-5TCJ-PLQ4-4JDP



4. Click the **OK** button to display the confirmation page shown at right.



5. Close all of the windows pertaining to installation and registration.
6. Open the Absolute Time Server application by performing one of the following:
 - a. For Windows 7:
Click on the Windows **Start** button, type "absolute time server" in the search box, and then choose "Absolute Time Server Manager" from the list to display the window shown to the right.
7. **Disable** both **RFC-868 (Time)** time servers, and **enable** the **RFC-2030 (SNTP)** time server as shown. Then click the **Apply** button.
8. Restart the PC.



6.7 Appendix E Radio Interface Cables E NEXEDGE NX700/800

Kenwood NEXEDGE NX-700/800 Voice Radio

Interface Cable # S2-61769

<i>Signal Name</i>	<i>IP Gateway DE-9* Pin #</i>	<i>NXx00 Radio DB-25 Pin #</i>
Tx+ (Mic audio to radio) Transformer isolated, 600 ohms	4	6
Tx- (Mic audio to radio)	5	25
Rx+ (Speaker audio from radio) Transformer isolated, 600 ohms	8	17
Rx- (speaker audio from radio)	9	18
Tx Data (from radio)	1	3
Rx Data (to radio)	6	2
Digital Ground	3	7

* Interface cable requires DE-9 Male to connect to the IP Gateway female connector.

Kenwood NEXEDGE NX-700/800 Data Radio

Interface Cable # 89-10505 (standard DE-9 to DB-25 serial cable)

<i>Signal Name</i>	<i>IP Gateway DE-9* Pin #</i>	<i>NXx00 Radio DB-25 Pin #</i>
Tx Data (from radio)	2	3
Rx Data (to radio)	3	2
Digital Ground	5	7

* Interface cable requires DE-9 Male to connect to the IP Gateway female connector.

6.8 Appendix E Radio Interface Cables E NEXEDGE NX720/820

Kenwood NEXEDGE NX-720/820 Voice Radio

Interface Cable # S2-61890

Signal Name	IP Gateway DE-9* Pin #	NXx20 Radio HD-15 Pin #
MI2 (Tx+ Mic audio to radio)	4	5
Audio Ground	5	15
AF0 (Rx+ Speaker audio from radio)	8	4
Audio Ground	9	15
Tx Data (from radio)	1	6
Rx Data (to radio)	6	7
Digital Ground	3	15

* Interface cable requires DE-9 Male to connect to the IP Gateway female connector.

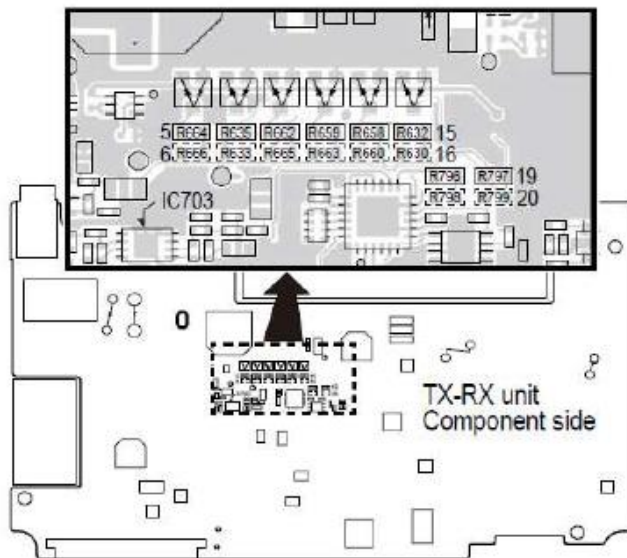
Kenwood NEXEDGE NX-720/820 Data Radio

Interface Cable # S2-61891

Signal Name	IP Gateway DE-9* Pin #	NXx20 Radio HD-15 Pin #
Tx Data (from radio)	2	6
Rx Data (to radio)	3	7
Digital Ground	5	15

Additional modifications to internal Tx-Rx unit of NX-720/820

Out	In	Description
R664	R666	Change FNC1 (TXD) and FNC2 (RXD) of HD-15 (DE-15) Connector from TTL level to RS-232C level
R635	R633	
R662	R665	
R796	R798	Change signal output from DEO to AFO
R797	R799	Change signal input from DI to MI2



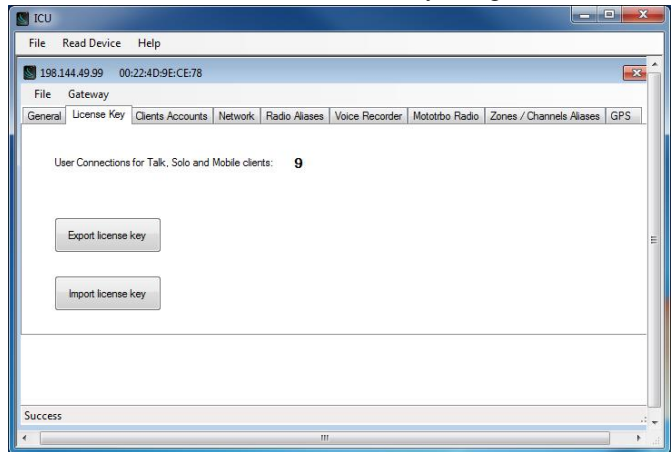
6.7 Appendix - Converting a Timed-license to a Non-expiring License

A RadioPro IP Gateway may have a timed-license duration of 120 days. (The Packing List will indicate Part # S2-61612 if the timed-license is active.) If the Timed-License is active, and following the 120 day period, the RadioPro IP Gateways will not connect to a RadioPro Dispatch, Solo, Talk, or Talk for Mobile client for longer than five minutes. See instructions below for converting the timed-license to a non-expiring license.

Following receipt of payment to CTI Products for ordered 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. Use instructions for

2. *Step 3. Configure RadioPro IP Gateway* on Page 30 to initiate a connection to the IP Gateway using ICU.exe.
3. Click on the **License Key** tab. This tab is used to transfer the License File between the IP Gateway and CTI Products when an upgrade to the License is purchased.
4. Click the **Export License Key** button, and then choose a location to store the license file.
5. Send the license file, along with the IP Gateway serial number in the subject line, to support@ctiproducts.com. If you are requesting non-expiring licenses for multiple RadioPro IP Gateways, choose unique file names for each license file.
6. Following receipt of the updated license file from CTI Products, repeat steps 1 and 2 listed above, click the **Import License Key** button, and then choose the location where the updated license file was saved.



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8. SYSTEM PLANNER TEMPLATE **PAGE 1 OF 2**

RadioPro IP Gateways

Parameters Common to all IP Gateways

ICU.exe Admin Password <small>for ICU.exe, default is %admin+</small>	Dispatch Client Password <small>for Dispatch client connections default is %user+</small>	NTP Server IP Address <small>Network Time Protocol</small>

Parameters Unique to each IP Gateway

GPS = GPS Data Revert.
Each IP Gateway supports 1
Voice & 1 GPS Data Radio.

	Name <small>IP Gateway name has max 2 lines, 24 chars per line</small>	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

SYSTEM PLANNER TEMPLATE **PAGE 2 OF 2**

RadioPro Dispatch Clients

See RadioPro Dispatch Installation and Configuration Guide, document # S2-61785 for more information.

Parameters Common to all Dispatch clients

<i>Administrator Password</i> <small>for Edit Mode</small>

Parameters Unique to each Dispatch client

<i>PC Name</i>	<i>IP Address</i>	<i>License #</i>	<i>Licensed IP Gateway Connections</i>

RadioPro Solo, Talk, and Mobile Clients

See [TurboVUi Solo Installation Guide, Document # S2-61568](#), for more information.

Parameters Common to all Talk Clients

<i>Administrator Login Name</i> <small>Not Editable</small>	<i>Administrator Password</i> <small>default is %admin+</small>
admin	

<i>User Login Name</i> <small>default is %user+</small>	<i>User Password</i> <small>default is %user+</small>

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