



GW3-TRBO®
Connect
Software Version 2.15
Module Book

GW3-TRBO®

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Refer to the *Troubleshooting & Support* section of the GW3-TRBO Manual Shell (Book 600-2.15.0-AA.1) for complete support and contact information.

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2.14	Added Appendix A - Subscriber GPS Event Correlation	JAW
2.14	Removed SkyView Chapter	ATG
2.15	Revisions Before Release	REB

Table of Contents

<i>Trademarks</i>	3
<i>The Genesis Group Trademark Information</i>	3
<i>Copyright</i>	3
<i>Disclaimer</i>	3
<i>License</i>	3
<i>Support</i>	3
DOCUMENT HISTORY	4
TABLE OF CONTENTS	5
ABOUT THIS MANUAL	9
GOALS	9
WHO SHOULD READ THIS MANUAL?	9
HOW THIS MANUAL IS ORGANIZED	9
CHAPTER 1 OVERVIEW	11
WHAT IS CONNECT?	11
CONNECTION STATUS.....	13
CHAPTER 2 CONNECT PLUS CONNECTIONS	15
CONNECT PLUS CONNECTION OVERVIEW	15
<i>Connect Plus License</i>	15
<i>Connect Plus Connection Properties</i>	16
Basic	16
Gateway Settings.....	16
Gateway User Settings	16
Radio Command Settings.....	16
System.....	16
Timeout Settings	17
ADDING A CONNECT PLUS CONNECTION.....	17
UPDATING A CONNECT PLUS CONNECTION	17
DELETING A CONNECT PLUS CONNECTION	18
CHAPTER 3 APM CONNECTIONS	19
APM CONNECTION OVERVIEW	19
<i>APM License</i>	19
<i>APM Connection Properties</i>	20
ADDING AN APM CONNECTION	21
UPDATING AN APM CONNECTION.....	21
DELETING AN APM CONNECTION	21
APM CHANNEL OVERRIDES.....	22
<i>Adding an APM Frequency Override</i>	23
<i>Deleting an APM Frequency Override</i>	23
<i>Editing an APM Frequency Override</i>	23
CHAPTER 4 SNMP CONNECTIONS	25
SNMP VALUES AND TRAPS.....	25
GET	25
SNMP CONNECTION OVERVIEW	26
<i>SNMP License</i>	26
<i>SNMP Connection Properties</i>	26

ADDING AN SNMP CONNECTION	26
UPDATING AN SNMP CONNECTION	27
DELETING AN SNMP CONNECTION	27
CUSTOM SNMP VALUES	27
RESOURCE MAPPING	27
<i>Importing Resources</i>	28
<i>Exporting Resources or Generating a Template</i>	28
<i>Removing Resources</i>	28
CHAPTER 5 SMTP SERVER CONNECTIONS.....	29
SMTP SERVER CONNECTION OVERVIEW	29
<i>SMTP Server License</i>	29
<i>SMTP Server Connection Properties</i>	30
ADDING A SMTP SERVER CONNECTION	31
UPDATING A SMTP SERVER CONNECTION.....	31
DELETING A SMTP SERVER CONNECTION	31
CHAPTER 6 TRBO ATIA CONNECTIONS.....	33
TRBO ATIA CONNECTION OVERVIEW	33
<i>TRBO ATIA License</i>	33
<i>TRBO ATIA Connection Properties</i>	34
Basic	34
Data Source Settings	34
System.....	34
Timeout Settings	35
ADDING A TRBO ATIA CONNECTION	36
UPDATING A TRBO ATIA CONNECTION.....	36
DELETING A TRBO ATIA CONNECTION	36
CALL PREEMPTION	36
CHAPTER 7 TRBO WIRELINE GATEWAY CONNECTIONS.....	37
TRBO WIRELINE GATEWAY CONNECTION OVERVIEW	37
<i>TRBO Wireline Gateway License</i>	37
<i>TRBO Wireline Gateway Connection Properties</i>	38
Basic	38
System.....	38
Wireline Voice Gateway Settings	38
ADDING A TRBO WIRELINE GATEWAY CONNECTION	39
UPDATING A TRBO WIRELINE GATEWAY CONNECTION.....	39
DELETING A TRBO WIRELINE GATEWAY CONNECTION	39
CHAPTER 8 REST API CONNECTIONS.....	41
REST API CONNECTION OVERVIEW	41
<i>REST API License</i>	41
<i>REST API Connection Properties</i>	42
<i>REST API Connection Host Statuses</i>	42
<i>REST API Web Server Logging</i>	42
ADDING A REST API CONNECTION	43
UPDATING A REST API CONNECTION.....	43
DELETING A REST API CONNECTION	43
REST API COMMUNICATION	43
CHAPTER 9 CONNECT PLUS CONFIGURATION SERVICES CONNECTIONS	44
CPCS CONNECTION OVERVIEW	44
<i>CPCS License</i>	44

<i>CPCS Connection State</i>	45
<i>CPCS Logging</i>	45
<i>CPCS Connection Properties</i>	46
Sync.....	46
Manage Gateways	47
ADDING A CPCS CONNECTION	48
UPDATING A CPCS CONNECTION.....	48
DELETING A CPCS CONNECTION	48
DELETING A GATEWAY	49
CHAPTER 10 SMARTPTT SUBSCRIBER GPS CONNECTIONS.....	50
SMARTPTT SUBSCRIBER GPS CONNECTION OVERVIEW.....	50
<i>SmartPTT Subscriber GPS License</i>	50
<i>SmartPTT Subscriber GPS Connection Properties</i>	51
<i>SmartPTT Subscriber GPS Connection Statuses</i>	52
ADDING A SMARTPTT SUBSCRIBER GPS CONNECTION	53
UPDATING A SMARTPTT SUBSCRIBER GPS CONNECTION	53
DELETING A SMARTPTT SUBSCRIBER GPS CONNECTION.....	53
CHAPTER 11 NEOTERRA SUBSCRIBER GPS CONNECTIONS	54
NEOTERRA SUBSCRIBER GPS CONNECTION OVERVIEW	54
<i>NeoTerra Subscriber GPS License</i>	54
<i>NeoTerra Subscriber GPS Connection Properties</i>	55
<i>NeoTerra Subscriber GPS Connection Statuses</i>	55
ADDING A NEOTERRA SUBSCRIBER GPS CONNECTION	56
UPDATING A NEOTERRA SUBSCRIBER GPS CONNECTION	56
DELETING A NEOTERRA SUBSCRIBER GPS CONNECTION.....	56
CHAPTER 12 RAW DATA FILES	58
<i>Information on Raw Data Files</i>	58
Changing the Raw Data File Directory	59
APPENDIX A SUBSCRIBER GPS EVENT CORRELATION.....	60

Goals

This manual describes the role and function of the Connect module in the GW3-TRBO solution.

Who Should Read This Manual?



This manual is written for the intended audience of mid-level computer network users and novice to mid-level PC users.

How This Manual Is Organized

This manual is organized as follows:

- **Overview:** Provides an overview of the Connect module.
- **Connect Plus Connections:** Describes how to create and manage MOTOTRBO Connect Plus connections.
- **APM Connections:** Describes how to create and manage connections to an Advanced Power Management server.
- **SNMP Connections:** Describes how to create and manage SNMP (Simple Network Management Protocol) connections. See this section for a description of SNMP.
- **SMTP Server Connections:** Describes how to create and manage a connection to receive SMTP mail input to be parsed and forwarded to GW3-TRBO for processing.
- **TRBO ATIA Connections:** Describes how to create and manage TRBO ATIA connections.
- **TRBO Wireline Gateway Connections:** Describes how to create and manage TRBO Wireline Gateway connections.
- **REST API Connections:** Describes how to create and manage REST API connections.
- **Connect Plus Configuration Services Connections:** Describes how to create and manage Connect Plus Configuration Services connections.
- **SmartPTT Subscriber GPS Connections:** Describes how to create and manage connections to a SmartPTT database to obtain subscriber GPS data.
- **NeoTerra Subscriber GPS Connections:** Describes how to create and manage connections to a neoTerra server to obtain subscriber GPS data.
- **Raw Data Files:** Describes where raw data files – used by support personnel – are saved and how to change the raw data directory.

This manual contains the following images, used to indicate that a segment of text requires special attention:

-  **Additional Information:** Additional information is used to indicate shortcuts or tips.
-  **Warning:** Warnings are used to indicate possible problem areas, such as a risk of data loss or incorrect/unexpected functionality.

This chapter provides an overview of the Connect module and its function within the GW3-TRBO solution.

This chapter contains the following sections:

- **What Is Connect?:** Describes the role and function of the Connect module.
- **Connect Features:** Describes the features of the Connect graphical user interface (GUI).

What is Connect?

Connect is a module that allows you to set up connections to the following GW3-TRBO data sources:

- **APM:** Advanced Power Management is a product by RFI that allows you to monitor various power levels of connected repeaters. Refer to the *APM Connections* section of this manual for more information.
- **Connect Plus:** Connect Plus is a MOTOTRBO radio system configuration that allows trunking of voice and data calls across multiple sites over IP. Refer to the *Connect Plus Connections* section of this manual for more information.
- **Connect Plus Configuration Services:** This type allows GW3-TRBO to sync its radio and group information with the user registry on a Connect Plus gateway. Refer to the *Connect Plus Configuration Services Connections* section of this manual for more information.
- **NeoTerra Subscriber GPS:** This type is used to pull subscriber GPS data from a neoTerra server. Refer to the *NeoTerra Subscriber GPS Connections* section of this manual for more information.
- **REST API:** This type is used to send Configuration Services and Alias Management requests to the GW3-TRBO service. Refer to the *REST API Connections* section of this manual for more information.
- **SmartPTT Subscriber GPS:** This type is used to pull subscriber GPS data from a SmartPTT RadioServer database. Refer to the *SmartPTT Subscriber GPS Connections* section of this manual for more information.
- **SMTP Server:** This type parses SMTP mail input from SMTP clients and uses the resulting data as input, which is forwarded on to GW3-TRBO for processing. Refer to the *SMTP Server Connections* section of this manual for more information.
- **SNMP:** Simple Network Management Protocol is a protocol that allows network objects, both software and hardware, to deliver SNMP traps and expose SNMP values. Refer to the *SNMP Connection* section of this manual for more information on SNMP traps and values.

- **TRBO ATIA:** This type processes data from MOTOTRBO Capacity MAX radio systems. Refer to the *TRBO ATIA Connections* section of this manual for more information.
- **TRBO Wireline Gateway:** This type creates a connection to a MOTOTRBO wireline voice gateway to send radio commands to its associated radio system. Refer to the *TRBO Wireline Gateway Connections* section of this manual for more information.

Connect connections translate their proprietary data into GW3-TRBO packets and send these packets to GW3-TRBO for processing. Some connections are bidirectional. This means that they receive and send data to their connection.

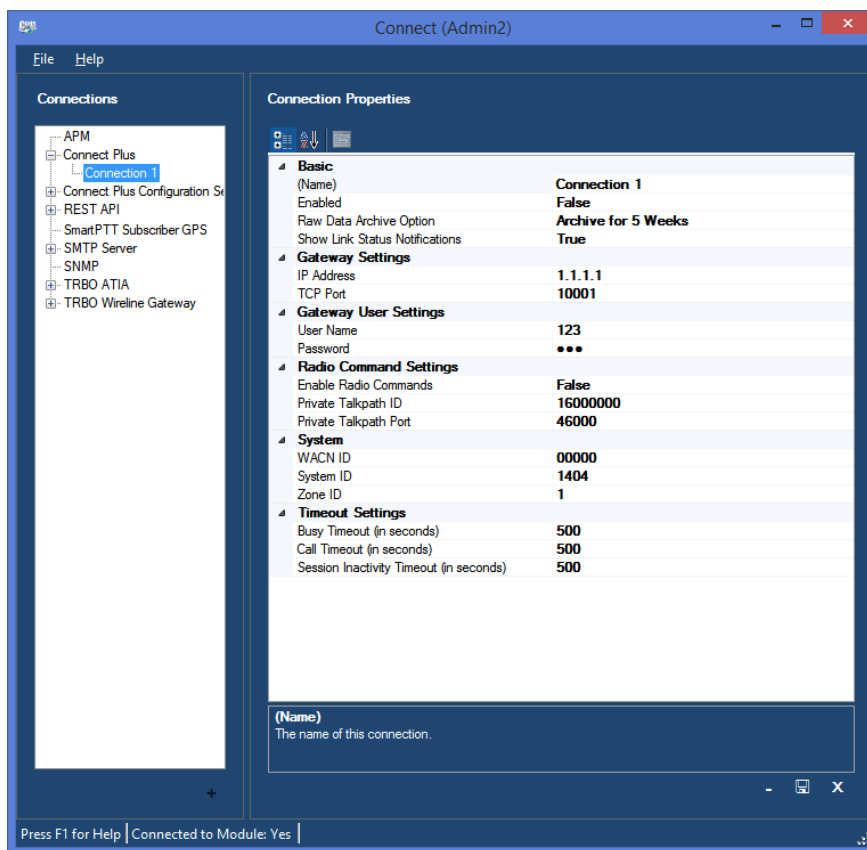









Figure 1.1 – Connect GUI

Connection Status

Each connection shown in the **Connections** list, on the left side of the Connect GUI, represents a connection to a data source. The status of each connection is represented by a radio icon that appears in the Windows system tray (the bottom right of your desktop). The icon has the following statuses:

-  : Connection is encountering an error.
-  : Connection with a connected client is encountering an error.
-  : Connection has received packets within the past several seconds. The amount of time varies by connection type.
-  : Connection with a connected client has received packets within the past several seconds. The amount of time varies by connection type.
-  : Connection has not received packets within the past several seconds. The amount of time varies by connection type. (Blinks between red and white background.)
-  : Connection with a connected client has not received packets within the past several seconds. The amount of time varies by connection type. (Blinks between red and white background.)
-  : Connection that manages multiple data sources is receiving data from at least one source, but at least one other source is either not receiving data or has a connectivity issue.



A loss of connection can occur if a TCP connection receives a reset command (Firewalls and some networking hardware can send these commands); this will result in a Link Down for the connection.

This chapter describes Connect Plus connections and how they are used in GW3-TRBO.

This chapter contains the following sections:

- **Connect Plus Connection Overview:** Describes the Connect Plus connection licensing and Connect Plus connection properties.
- **Adding a Connect Plus Connection:** Describes the process of adding a Connect Plus connection.
- **Updating a Connect Plus Connection:** Describes the process of updating a Connect Plus connection.
- **Deleting a Connect Plus Connection:** Describes the process of deleting a Connect Plus Connection.

Connect Plus Connection Overview

Connect Plus License

The GW3-TRBO license determines the number of Connect Plus connections allowed in Connect. To view the number of Connect Plus connections in your license:

1. Click the **View License** button on Launch.
2. Expand the **Modules** node.
3. Expand the **GW_Connect** node.
4. Expand the **Restrictions** node.
5. See the **ConnectPlus.Connections** value.



The Connect module only monitors call activity for Connect Plus connections. To monitor repeater alarms, you must also set up a connection for each site in the Trbo module. See the GW3-TRBO Trbo book (600.2.13.0-LL.1) for more information.

Connect Plus Connection Properties

The Connect Plus connection includes the following properties:

Basic

- **(Name):** Alias of this connection.
- **Enabled:** Indicates whether this connection is enabled.
 - *True:* Connection is enabled.
 - *False:* Connection is not enabled.
- **Raw Data Archive Option:** The Connect module can log all raw data received from a connection. This option determines how long this data is stored. Options include:
 - *Do Not Archive:* Do not log raw data.
 - *Archive for 1 Week:* Keep raw data for one week.
 - *Archive for 2 Weeks:* Keep raw data for two weeks.
 - *Archive for 5 Weeks:* Keep raw data for five weeks.
- **Show Link Status Notifications:** Indicates whether the user will receive GUI notifications when the connection's link status goes up or down.
 - *True:* Send notifications.
 - *False:* Do not send notifications.

Gateway Settings

- **IP Address:** The IP address of the gateway.
- **TCP Port:** The TCP port used to connect to the gateway.

Gateway User Settings

- **User Name:** The login name for the user logging into the gateway.
- **Password:** The password for the user logging into the gateway.
- **Use Legacy User Authentication:** Select this option to connect to a gateway using a firmware release prior to 1.5.

Radio Command Settings

- **Enable Radio Commands:** Specifies whether the connection is able to send Selective Inhibit (Radio Disable), Cancel Selective Inhibit (Radio Enable) and Radio Check commands. Enabling commands requires the gateway user to be allotted at least one talkpath.
- **Private Talkpath ID:** The ID of the talkpath registered to the gateway user. This talkpath ID will be used to send radio commands.
- **Private Talkpath Port:** The UDP port on which radio commands will be sent from the Connect module to the gateway.

System

- **WACN ID:** The licensed WACN associated with this connection.
- **System ID:** The system associated with this connection. The system corresponds to the Connect Plus network ID provided by Motorola. If the

system ID format is set to hexadecimal in the Launch GUI, this value will be presented in hexadecimal.

- **Zone ID:** The licensed Zone ID associated with this connection.

Timeout Settings

The Connect module relies upon receiving data from the gateway over the network. If Connect does not receive a notification about the end of an activity, that activity can appear to be never-ending in GW3-TRBO. To compensate for this, several optional timeout features may be configured:

- **Busy Timeout (in seconds):** Buses will be timed out after the specified number of seconds. Set this to 0 to never end buses due to a timeout.
- **Call Timeout (in seconds):** Calls will be timed out after the specified number of seconds. Set this to 0 to never end calls due to a timeout. If enabled, this field should always be set at least a few seconds higher than the **Time-Out Timer (TOT)** value in your radio or repeater programming.
- **Session Inactivity Timeout (in seconds):** Sessions will be timed out after being inactive for the specified number of seconds. Set this to 0 to never end sessions due to a timeout. The inactivity timer begins when a channel assignment or busy on that session ends, and it is reset by a new channel assignment on the session. When enabled, this field must always be set to a value greater than the highest possible hang time in your repeater programming.



Using the timeout features can result in invalid data. The timeout values should be carefully considered to ensure that normal activities are not being ended prematurely. For example, if the **Call Timeout** field is set to 30 seconds, any call longer than 30 seconds will appear to end after 30 seconds in GW3-TRBO.

Adding a Connect Plus Connection

To add a new Connect Plus connection, follow the steps below:

1. Click on the **Connect Plus** node in the **Connections** list: This will enable the **Add Connection...** button.
2. Click the **Add Connection...** button: This will show the *Connection Properties* with default Connect Plus properties.
3. Enter the Connect Plus connection properties and click the **Update** button: This will add the Connect Plus connection.



Name must be alphanumeric to pass validation.

Updating a Connect Plus Connection

To update an existing Connect Plus connection, follow the steps below:

1. Click on the Connect Plus connection you wish to update: This will show the properties of the selected connection.
2. Change the desired Connect Plus connection properties and click the **Update** button: This will update the Connect Plus connection.

Deleting a Connect Plus Connection

To delete an existing Connect Plus connection, follow the steps below:

1. Click on the Connect Plus connection you wish to delete: This will show the properties of the selected connection.
2. Click the **Delete** button: This will delete the selected Connect Plus connection.

This chapter describes the APM (Advanced Power Management) by RFI and how it is used in GW3-TRBO.

This chapter contains the following sections:

- **APM Connection Overview:** Describes the APM connection licensing and APM connection properties.
- **Adding an APM Connection:** Describes the process of adding an APM connection.
- **Updating an APM Connection:** Describes the process of updating an APM connection.
- **Deleting an APM Connection:** Describes the process of deleting an APM Connection.
- **APM Channel Overrides:** Describes APM Channel Overrides and the process to configure them.

APM Connection Overview

An APM connection is a connection to a GET APM Reader or 2SQL. The GET APM Reader or 2SQL receives APM UDP Traffic packets from an APM device, archives them (in the case of the GET APM 2SQL) and forwards them on to the APM connection.

APM License

The GW3-TRBO license determines the number of APM connections allowed in Connect. To view the number of APM connections in your license:

1. Click the **View License** button on Launch.
2. Expand the **Modules** node.
3. Expand the **GW_Connect** node.
4. Expand the **Restrictions** node.
5. See the **APM.Connections** value.

APM Connection Properties

The APM connection includes the following properties:

- **(Name):** Alias of this connection.
- **Enabled:** Indicates whether this connection is enabled.
 - *True:* Connection is enabled.
 - *False:* Connection is not enabled.
- **GET APM Host Name:** IP Address or DNS name of the machine hosting the GET APM 2SQL or Reader.
- **GET APM Pipe Name:** Pipe Name on the machine hosting the GET APM 2SQL or Reader.
- **Raw Data Archive Option:** The Connect module can log all raw data received from a connection. This option determines how long this data is stored. Options include:
 - *Do Not Archive:* Do not log raw data.
 - *Archive for 1 Week:* Keep raw data for one week.
 - *Archive for 2 Weeks:* Keep raw data for two weeks.
 - *Archive for 5 Weeks:* Keep raw data for five weeks.
- **Show Link Status Notification:** Indicates whether you will receive a GW3-TRBO GUI Notification when the link transitions from up to down or down to up.
 - *True:* Send notifications.
 - *False:* Do not send notifications.
- **Connection Timeout (sec):** The number of seconds to allow after the last packet is received before considering the connection to be down.
- **WACN ID:** The WACN ID for the channels on this APM.
- **System ID:** The system ID for the channels on this APM.
- **Zone ID:** The zone ID for the channels on this APM.
- **Site ID:** The site ID for the channels on this APM.
- **Subsite ID:** The subsite ID for the channels on this APM.

Adding an APM Connection

To add a new APM connection, follow the steps below:

1. Click on the **APM** node in the **Connections** list: This will enable the **Add Connection...** button.
2. Click the **Add Connection...** button: This will show the *Connection Properties* with default APM properties.
3. Enter the APM connection properties and click the **Update** button: This will add the APM connection.



Name must be alphanumeric to pass validation.

Updating an APM Connection

To update an existing APM connection, follow the steps below:

1. Click on the APM connection you wish to update: This will show the properties of the selected connection.
2. Change the desired APM connection properties and click the **Update** button: This will update the APM connection.

Deleting an APM Connection

To delete an existing APM connection, follow the steps below:

1. Click on the APM connection you wish to delete: This will show the properties of the selected connection.
2. Click the **Delete** button: This will delete the selected APM connection.





APM Channel Overrides

In some cases, a single APM device is setup to monitor frequencies on multiple sites. The APM Frequency Override feature allows you to assign a WACN, System, Zone, Site and Subsite to specific frequencies, overriding the WACN, System, Zone, Site and Subsite selected in the APM Connection Properties.





APM Channel Override options include:

- **Frequency:** The frequency to override.
- **WACN ID:** The WACN ID to report when APM activity is received on this frequency.
- **System ID:** The System ID to report when APM activity is received on this frequency.
- **Zone ID:** The Zone ID to report when APM activity is received on this frequency.
- **Site ID:** The Site ID to report when APM activity is received on this frequency.
- **Subsite ID:** The Subsite ID to report when APM activity is received on this frequency.
- **TX RSSI Mode:** Indicates that this frequency is a TX frequency that may be reported at an RX frequency in APM RSSI packets. Checking this option will prevent notifications that APM is reporting activity on frequencies that do not exist in the Alias database.





Adding an APM Frequency Override

1. Click on the Frequency Override button ()
2. Click on the Add... button ().
3. Enter the APM Channel Override Options.
4. Click the OK button.
5. Click the Save button () on the APM Frequency Override screen.
6. Click the Save button () on the GW_Connect screen.

Deleting an APM Frequency Override

1. Click on the Frequency Override button ()
2. Select (click on) the frequency to delete in the APM Frequency Overrides list.
3. Click the Delete button ()
4. Click the Save button () on the APM Frequency Override screen.
5. Click the Save button () on the GW_Connect screen.

Editing an APM Frequency Override

1. Click on the Frequency Override button ()
2. Select (click on) the frequency to edit in the APM Frequency Overrides list.
3. Click the Edit... button ()
4. Edit the APM Channel Override Options.
5. Click the Save button () on the APM Frequency Override screen.
6. Click the Save button () on the GW_Connect screen.

This chapter describes SNMP (Simple Network Management Protocol) and how it is used in GW3-TRBO.

This chapter contains the following sections:

- **SNMP Values and Traps:** Defines SNMP values and SNMP traps.
- **GET:** Describes the Global Enterprise Tool product and its role in the GW3-TRBO SNMP solution.
- **SNMP Connection Overview:** Describes the SNMP connection licensing and SNMP connection properties.
- **Adding an SNMP Connection:** Describes the process of adding an SNMP connection.
- **Updating an SNMP Connection:** Describes the process of updating an SNMP connection.
- **Deleting an SNMP Connection:** Describes the process of deleting an SNMP Connection.

SNMP Values and Traps

SNMP values are values that are exposed by SNMP devices. The SNMP Manager allows you to setup a time-based, recurring query on one or more SNMP values. The SNMP Manager gathers the query results and delivers these SNMP values in a single SNMP message. An example of an SNMP value is a USB hub reporting a value of *Available Ports*.

SNMP traps (also known as SNMP notifications) are SNMP packets that originate from an SNMP device when a threshold or condition is met within the device. SNMP traps may contain one or more SNMP values. SNMP traps may contain SNMP values that are not otherwise exposed.

GET

Global Enterprise Tool is a software product offered by Genesis that allows you to:

- Setup time-based, recurring queries on SNMP values. The GET SNMP Manager then broadcasts these values in a single SNMP message.
- Allows one or more GET clients (such as the SNMP Connect) to connect and receive SNMP messages and traps.
- SNMP message forwarding to GET clients.
- SNMP trap forwarding to GET clients.

Please refer to the GET documentation for more information on the GET product.

SNMP Connection Overview

SNMP License

The GW3-TRBO license determines the number of SNMP connections allowed in Connect. To view the number of SNMP connections in your license:

1. Click the **View License** button on Launch.
2. Expand the **Modules** node.
3. Expand the **Connect** node.
4. Expand the **Restrictions** node.
5. See the **SNMP.Connections** value.

SNMP Connection Properties

The SNMP connection includes the following properties:

- **(Name):** Alias of this connection.
- **Enabled:** Indicates if this connection is enabled.
 - *True:* Connection is enabled.
 - *False:* Connection is not enabled.
- **Raw Data Archive Option:** The Connect module can log all raw data received from a connection. This option determines how long this data is stored. Options include:
 - *Do Not Archive:* Do not log raw data.
 - *Archive for 1 Week:* Keep raw data for one week.
 - *Archive for 2 Weeks:* Keep raw data for two weeks.
 - *Archive for 5 Weeks:* Keep raw data for five weeks.
- **Show Link Status Notifications:** Indicates whether the user will receive GUI notifications when the connection's link status goes up or down.
 - *True:* Send notifications.
 - *False:* Do not send notifications.
- **Filter Pipe Name:** Name of the filter pipe used by the GET product.
- **Source IP Address:** IP address of the machine hosting the GET product.

Adding an SNMP Connection

To add a new SNMP connection, follow the steps below:

1. Click on the **SNMP** node in the **Connection** list: This will enable the **Add Connection...** button.
2. Click the **Add Connection...** button: This will show the *Connection Properties* with default SNMP properties.
3. Enter the SNMP connection properties and click the **Update** button: This will add the SNMP connection.



Name must be alphanumeric to pass validation.

Updating an SNMP Connection

To update an existing SNMP connection, follow the steps below:

1. Click on the SNMP connection you wish to update: This will show the properties of the selected connection.
2. Change the desired SNMP connection properties and click the **Update** button: This will update the SNMP connection.

Deleting an SNMP Connection

To delete an existing SNMP connection, follow the steps below:

1. Click on the SNMP connection you wish to delete: This will show the properties of the selected connection.
2. Click the **Delete** button: This will delete the selected SNMP connection.


Custom SNMP Values

SNMP values are the result of polling a value exposed via standard SNMP practices (See SNMP Values and Traps section above). Each network has a wide variety of pollable SNMP values. By default, these polled values are shown in GW3-TRBO as SNMP Object Identifiers (OIDs) with a value. GW3-TRBO provides a way to assign an alias and a value type to these polled values. To add custom entries to these tables, please contact Genesis Support.

Resource Mapping

An SNMP connection can receive messages about repeater alarms from the Unified Event Manager (UEM). However, these SNMP messages do not contain information that can identify the WACN, System, Zone, Site, Channel or Slot on which the alarm occurred. To correlate these alarms with the system infrastructure in your Alias database, Connect allows you to map each device name in the SNMP message with a resource on your system.

To be processed by the Resource Map, the SNMP message must have an *nbiSourceDevice* OID ending with “:Repeater.” If the *nbiSourceDevice* OID in the SNMP message matches a Resource Name in the Resource Map, Connect will generate a Diagnostic packet using the infrastructure details specified in the map.

To open the *SNMP Resource Map* window, click the **Resource Map...** () button at the bottom left of the *Connection Properties* panel. This will bring up a list of all currently mapped resources.

Importing Resources

To import resources from a comma-separated value (CSV) file, follow the steps below:



1. Click the **Import...** button.
2. Choose a CSV file to import and click **Open**. The resources in the file will be added to the list. If a resource in the import file has the same Resource Name as an item in the list, the list's item will be updated with the details in the import file.
3. A summary of the results of the import will be displayed in a new window. If any resources failed to import, the reason for the failure will be displayed. Click **OK** to close the results window.

Exporting Resources or Generating a Template

To export your resource list into a CSV file, follow the steps below. If there are no resources in the list, the Export feature will generate a CSV template with the column headers required for a successful import.

1. Click the **Export...** button.
2. Choose a file path to create or an existing CSV file to overwrite and click **Save**.

Removing Resources

To remove resources from the list, highlight one or more resources in the list and click the **Delete** () button. To remove all resources from the list, click the **Clear** () button.

This chapter describes the SMTP Server connection and how it is used in GW3-TRBO.

This chapter contains the following sections:

- **SMTP Server Connection Overview:** Describes the SMTP Server connection licensing and SMTP Server connection properties.
- **Adding a SMTP Server Connection:** Describes the process of adding a SMTP Server connection.
- **Updating a SMTP Server Connection:** Describes the process of updating a SMTP Server connection.
- **Deleting a SMTP Server Connection:** Describes the process of deleting a SMTP Server Connection.

SMTP Server Connection Overview

SMTP Server connections accept SMTP mail input from SMTP clients. The SMTP Server connection parses mail messages and uses the resulting data as input, which is forwarded on to GW3-TRBO for processing.

The following SMTP Protocol is supported in this version:

- **ConnectPlusSiteController:** Send emails regarding diagnostic events.

SMTP Server License

The GW3-TRBO license determines the number of SMTP Server connections allowed in Connect. To view the number of SMTP Server connections in your license:

1. Click the **View License** button on Launch.
2. Expand the **Modules** node.
3. Expand the **GW_Connect** node.
4. Expand the **Restrictions** node.
5. See the **SmtServer.Connections** value.

SMTP Server Connection Properties

The SMTP Server connection includes the following properties:

- **(Name):** Alias of this connection.
- **Enabled:** Indicates whether this connection is enabled.
 - *True:* Connection is enabled.
 - *False:* Connection is not enabled.
- **Raw Data Archive Option:** The Connect module can log all raw data received from a connection. This option determines how long this data is stored. Options include:
 - *Do Not Archive:* Do not log raw data.
 - *Archive for 1 Week:* Keep raw data for one week.
 - *Archive for 2 Weeks:* Keep raw data for two weeks.
 - *Archive for 5 Weeks:* Keep raw data for five weeks.
- **Port:** The TCP port used to accept client connections.
- **SMTP Protocol:** The expected format of the SMTP mail messages received from the client.
- **WACN ID:** The WACN ID for this SMTP Server.
- **System ID:** The system ID for this SMTP Server.
- **Zone ID:** The zone ID for this SMTP Server.

Adding a SMTP Server Connection

To add a new SMTP Server connection, follow the steps below:

1. Click on the **SMTP Server** node in the **Connections** list: This will enable the **Add Connection...** button.
2. Click the **Add Connection...** button: This will show the *Connection Properties* with default SMTP Server properties.
3. Enter the SMTP Server connection properties and click the **Update** button: This will add the SMTP Server connection.



(Name) must be alphanumeric to pass validation.

Updating a SMTP Server Connection

To update an existing SMTP Server connection, follow the steps below:

1. Click on the SMTP Server connection you wish to update: This will show the properties of the selected connection.
2. Change the desired SMTP Server connection properties and click the **Update** button: This will update the SMTP Server connection.

Deleting a SMTP Server Connection

To delete an existing SMTP Server connection, follow the steps below:

1. Click on the SMTP Server connection you wish to delete: This will show the properties of the selected connection.
2. Click the **Delete** button: This will delete the selected SMTP Server connection.

This chapter describes TRBO ATIA connections and how they are used in GW3-TRBO.

This chapter contains the following sections:

- **TRBO ATIA Connection Overview:** Describes the TRBO ATIA connection licensing and TRBO ATIA connection properties.
- **Adding a TRBO ATIA Connection:** Describes the process of adding a TRBO ATIA connection.
- **Updating a TRBO ATIA Connection:** Describes the process of updating a TRBO ATIA connection.
- **Deleting a TRBO ATIA Connection:** Describes the process of deleting a TRBO ATIA Connection.



Important Note Regarding Buses: Due to limitations in the TRBO ATIA v2.6 protocol, a Busy is limited to reporting only one busy site. Even if the Busy is due to a lack of resources on more than one site, only one of these busy sites is reported.

TRBO ATIA Connection Overview

TRBO ATIA License

The GW3-TRBO license determines the number of TRBO ATIA connections and sites allowed in Connect. To view the number of TRBO ATIA connections and sites in your license:

1. Click the **View License** button on Launch.
2. Expand the **Modules** node.
3. Expand the **GW_Connect** node.
4. Expand the **Restrictions** node.
5. See the **TrboAtia.Connections** value. This is the number of connections you can create.
6. See the **TrboAtia.SiteLicenses** value. This is the number of sites you are licensed to allocate to your connections.

TRBO ATIA Connection Properties

The TRBO ATIA connection includes the following properties:

Basic

- **(Name):** Alias of this connection.
- **Enabled:** Indicates whether this connection is enabled.
 - *True:* Connection is enabled.
 - *False:* Connection is not enabled.
- **Raw Data Archive Option:** The Connect module can log all raw data received from a connection. This option determines how long this data is stored. Options include:
 - *Do Not Archive:* Do not log raw data.
 - *Archive for 1 Week:* Keep raw data for one week.
 - *Archive for 2 Weeks:* Keep raw data for two weeks.
 - *Archive for 5 Weeks:* Keep raw data for five weeks.
- **Show Link Status Notifications:** Indicates whether the user will receive GUI notifications when the connection's link status goes up or down.
 - *True:* Send notifications.
 - *False:* Do not send notifications.

Data Source Settings

- **UDP Port:** The UDP port on which Connect will receive data from the data source.

System

- **WACN ID:** The licensed WACN associated with this connection.
- **System ID:** The system associated with this connection. The system ID will be displayed in decimal or hexadecimal format based on the System ID Format setting in the Global Settings menu in Launch.
- **Zone ID:** The Zone ID the connection will use for organization.
- **Licensed Sites:** The GW3-TRBO license restricts the number of sites that may be monitored by TRBO ATIA connections. When creating a connection, you must assign site IDs to the connection using your available site licenses. Clicking the drop-down will open a panel where you can allocate sites to the connection.
 - To add a range of sites, enter the starting number in the **From** box and the ending number in the **To** box, then click the **Add** button. This will add every site in that range to the **Licensed Site List**.
 - For example, to add site 1 to the list, enter 1 in both the **From** and **To** boxes. To add sites 5, 6, 7 and 8 to the list, enter 5 in the **From** box and 8 in the **To** box.
 - To remove a site from the list, click the site in the **Licensed Site List** to highlight it, then click the **Delete** button. You may select more than one site at a time using the Shift or Ctrl keys when clicking.

- To remove all sites from the list, click the **Clear** button below the **Licensed Site List**.

Timeout Settings

The Connect module relies upon receiving data over the network. If Connect does not receive a notification about the end of an activity, that activity can appear to be never-ending in GW3-TRBO. To compensate for this, several optional timeout features may be configured:

- **Busy Timeout (in seconds):** Busies will be timed out after the specified number of seconds. Set this to 0 to never end busies due to a timeout.
- **Call Timeout (in seconds):** Calls will be timed out after the specified number of seconds. Set this to 0 to never end calls due to a timeout. If enabled, this field should always be set at least a few seconds higher than the **Time-Out Timer (TOT)** value in your radio or repeater programming.
- **Session Inactivity Timeout (in seconds):** Sessions will be timed out after being inactive for the specified number of seconds. Set this to 0 to never end sessions due to a timeout. The inactivity timer begins when a channel assignment or busy on that session ends, and it is reset by a new channel assignment on the session. When enabled, this field must always be set to a value greater than the highest possible hang time in your repeater programming.



Using the timeout features can result in invalid data. The timeout values should be carefully considered to ensure that normal activities are not being ended prematurely. For example, if the **Call Timeout** field is set to 30 seconds, any call longer than 30 seconds will appear to end after 30 seconds in GW3-TRBO.



Emergency Alarm events received from TRBO ATIA will result in two packets: an emergency alarm and an emergency alarm ack. The emergency alarm ack packet indicates that the alarm was acknowledged by the controller, not a person.

Adding a TRBO ATIA Connection

To add a new TRBO ATIA connection, follow the steps below:

1. Click on the **TRBO ATIA** node in the **Connections** list: This will enable the **Add Connection...** button.
2. Click the **Add Connection...** button: This will show the *Connection Properties* with default TRBO ATIA properties.
3. Enter the TRBO ATIA connection properties and click the **Update** button: This will add the TRBO ATIA connection.



Name must be alphanumeric to pass validation.

Updating a TRBO ATIA Connection

To update an existing TRBO ATIA connection, follow the steps below:

1. Click on the TRBO ATIA connection you wish to update: This will show the properties of the selected connection.
2. Change the desired TRBO ATIA connection properties and click the **Update** button: This will update the TRBO ATIA connection.

Deleting a TRBO ATIA Connection

To delete an existing TRBO ATIA connection, follow the steps below:

1. Click on the TRBO ATIA connection you wish to delete: This will show the properties of the selected connection.
2. Click the **Delete** button: This will delete the selected TRBO ATIA connection.

Call Preemption

Calls on TRBO ATIA are subject to preemption. When a call with a higher priority than other active calls would encounter a busy, the lower priority calls are interrupted on each site in which this conflict occurs. When some sites are removed from a call for this reason, GW3-TRBO will issue Update Session and Call Update activities to reflect the new list of sites on the preempted session and call. When all sites are removed from a call for this reason, GW3-TRBO will issue End of Call and End Session activities to reflect that the preempted session has ended.

Due to the timing of delivery from the TRBO ATIA system, preemption events may result in activity marked as corrupt in the Activity screen. This is expected behavior.

This chapter describes TRBO Wireline Gateway connections and how they are used in GW3-TRBO.

This chapter contains the following sections:

- **TRBO Wireline Gateway Connection Overview:** Describes the TRBO Wireline Gateway connection licensing and TRBO Wireline Gateway connection properties.
- **Adding a TRBO Wireline Gateway Connection:** Describes the process of adding a TRBO Wireline Gateway connection.
- **Updating a TRBO Wireline Gateway Connection:** Describes the process of updating a TRBO Wireline Gateway connection.
- **Deleting a TRBO Wireline Gateway Connection:** Describes the process of deleting a TRBO Wireline Gateway Connection.

TRBO Wireline Gateway Connection Overview

The TRBO Wireline Gateway connection is used to send commands to radios on the Capacity MAX system. In GW3-TRBO, these commands include Radio Check, Selective Inhibit and Cancel Selective Inhibit.



The TRBO Wireline Gateway supports up to three in-progress radio commands. When a radio command would result in a more than three in-progress radio commands, GW3-TRBO reports this as a “Pending Request Limit Reached” message in the event log of the GW3-TRBO host, waits 1 second and then tries again.

TRBO Wireline Gateway License

The GW3-TRBO license determines the number of TRBO Wireline Gateway connections allowed in Connect. To view the number of TRBO Wireline Gateway connections in your license:

1. Click the **View License** button on Launch.
2. Expand the **Modules** node.
3. Expand the **GW_Connect** node.
4. Expand the **Restrictions** node.
5. See the **TrboWirelineGateway.Connections** value. This is the number of connections you can create.

TRBO Wireline Gateway Connection Properties

The TRBO Wireline Gateway connection includes the following properties:

Basic

- **(Name):** Alias of this connection.
- **Enabled:** Indicates whether this connection is enabled.
 - *True:* Connection is enabled.
 - *False:* Connection is not enabled.
- **Raw Data Archive Option:** The Connect module can log all raw data received from a connection. This option determines how long this data is stored. Options include:
 - *Do Not Archive:* Do not log raw data.
 - *Archive for 1 Week:* Keep raw data for one week.
 - *Archive for 2 Weeks:* Keep raw data for two weeks.
 - *Archive for 5 Weeks:* Keep raw data for five weeks.
- **Show Link Status Notifications:** Indicates whether the user will receive GUI notifications when the connection's link status goes up or down.
 - *True:* Send notifications.
 - *False:* Do not send notifications.

System

- **WACN ID:** The licensed WACN associated with this connection.
- **System ID:** The system associated with this connection. The system ID will be displayed in decimal or hexadecimal format based on the System ID Format setting in the Global Settings menu in Launch.
- **Zone ID:** The Zone ID the connection will use for organization.

Wireline Voice Gateway Settings

- **IP Address:** The IP address of the wireline voice gateway.
- **TCP Port:** The TCP port of the wireline voice gateway.
- **Keep-Alive Interval (in seconds):** The time (in seconds) between keep-alive packets sent by the connection to the wireline gateway. Suggested value is 5.
- **Source ID:** Commands will be sent on behalf of this Radio ID. The Radio ID must be active on the system.
- **Use TLS:** Controls the use of Transport Layer Security for authentication and communication with the wireline voice gateway. This option is read-only and set to True.
 - *True:* Use TLS.
 - *False:* Do not use TLS.
- **Wireline Gateway Version:** Protocol Version of the wireline voice gateway.

Adding a TRBO Wireline Gateway Connection

To add a new TRBO Wireline Gateway connection, follow the steps below:

1. Click on the **TRBO Wireline Gateway** node in the **Connections** list: This will enable the **Add Connection...** button.
2. Click the **Add Connection...** button: This will show the *Connection Properties* with default TRBO Wireline Gateway properties.
3. Enter the TRBO Wireline Gateway connection properties and click the **Update** button: This will add the TRBO Wireline Gateway connection.



Name must be alphanumeric to pass validation.

Updating a TRBO Wireline Gateway Connection

To update an existing TRBO Wireline Gateway connection, follow the steps below:

1. Click on the TRBO Wireline Gateway connection you wish to update: This will show the properties of the selected connection.
2. Change the desired TRBO Wireline Gateway connection properties and click the **Update** button: This will update the TRBO Wireline Gateway connection.

Deleting a TRBO Wireline Gateway Connection

To delete an existing TRBO Wireline Gateway connection, follow the steps below:

1. Click on the TRBO Wireline Gateway connection you wish to delete: This will show the properties of the selected connection.
2. Click the **Delete** button: This will delete the selected TRBO Wireline Gateway connection.

This chapter describes the REST API connection and how it is used in GW3-TRBO.

This chapter contains the following sections:

- **REST API Connection Overview:** Describes the REST API connection licensing and REST API connection properties.
- **Adding a REST API Connection:** Describes the process of adding a REST API connection.
- **Updating a REST API Connection:** Describes the process of updating a REST API connection.
- **Deleting a REST API Connection:** Describes the process of deleting a REST API Connection.

REST API Connection Overview

The REST API connection is used to send Configuration Services and Alias Management requests to the GW3-TRBO service.

REST API License

The GW3-TRBO license determines the number of REST API connections allowed in Connect. To view the number of REST API connections in your license:

1. Click the **View License** button on Launch.
2. Expand the **Modules** node.
3. Expand the **GW_Connect** node.
4. Expand the **Restrictions** node.
5. See the **RestApi.Connections** value.

REST API Connection Properties

The REST API connection includes the following properties:

- **iVista Server Properties**
 - **iVista Address:** Hostname or IP address of the iVista server.
- **Basic Properties**
 - **(Name):** Alias of this connection.
 - **Enabled:** Indicates whether this connection is enabled.
 - *True:* Connection is enabled.
 - *False:* Connection is not enabled.
 - **Show Link Status Notification:** Indicates whether you will receive a GW3-TRBO GUI Notification when the link transitions from up to down or down to up.
 - *True:* Send notifications.
 - *False:* Do not send notifications.
 - **Verbose Logging:** Indicates whether message bodies will be included in the log files.
 - *True:* Include message bodies.
 - *False:* Do not include message bodies.
- **Client TCP Settings Properties**
 - **Client TCP Port:** The TCP port used to accept client connections.

REST API Connection Host Statuses

Hovering the mouse over the REST API connection icon while it is green will display the following popup messages:

1. **Host Available:** The connection has started, but no clients have connected.
2. **Host Available with Clients:** Clients have connected to the host.

REST API Web Server Logging

Log files are created in JSON (JavaScript Object Notation) format and are stored in *ProgramData\Genesis\GenWatch3\Logs\GW_Connect.RESTapi*. Log files are kept for five weeks. By default, the log files will contain message bodies for each entry. This option can be disabled to conserve disk space by setting the *Verbose Logging* option to false.

Adding a REST API Connection

To add a new REST API connection, follow the steps below:

1. Click on the **REST API** node in the **Connections** list: This will enable the **Add Connection...** button.
2. Click the **Add Connection...** button: This will show the *Connection Properties* with default REST API properties.
3. Enter the REST API connection properties and click the **Update** button: This will add the REST API connection.



(Name) must be alphanumeric to pass validation.

Updating a REST API Connection

To update an existing REST API connection, follow the steps below:

1. Click on the REST API connection you wish to update: This will show the properties of the selected connection.
2. Change the desired REST API connection properties and click the **Update** button: This will update the REST API connection.

Deleting a REST API Connection

To delete an existing REST API connection, follow the steps below:

1. Click on the REST API connection you wish to delete: This will show the properties of the selected connection.
2. Click the **Delete** button: This will delete the selected REST API connection.

REST API Communication

REST API communication is always via SSL (secured socket layer). Upon starting the REST API connection, GW3-TRBO will check the *Client TCP Port* on the host machine for an existing certificate binding. If one is found, GW3-TRBO will assume a valid SSL certificate is in place for this port. If one is not found, GW3-TRBO will notify the user. It will not create and bind a self-signed Genesis certificate authority and self-signed Genesis client certificate as that must be done during the initial configuration of GW3-TRBO.

Although the self-signed Genesis certificate authority facilitates private communication between the REST API and its clients, it is not as secure as a certificate signed by a verified third-party certificate authority. If you own or would like to purchase and install a verified third-party signed certificate, simply binding the certificate to the *Client TCP Port* will allow the REST API to communicate using your certificate.

For more information on installing a verified third-party signed certificate, please contact GW3-TRBO support.

Chapter 9 Connect Plus Configuration Services Connections

This chapter describes the Connect Plus Configuration Services (CPCS) connection and how it is used in GenWatch3.

This chapter contains the following sections:

- **CPCS Connection Overview:** Describes the CPCS connection licensing and Gateway connection properties.
- **Adding a CPCS Connection:** Describes the process of adding a CPCS connection.
- **Updating a CPCS Connection:** Describes the process of updating a CPCS connection.
- **Deleting a CPCS Connection:** Describes the process of deleting a CPCS Connection.

CPCS Connection Overview

The CPCS connection is used by GW3-TRBO to sync its radio and group information with the user registry on a Connect Plus gateway.

CPCS License

The GenWatch3 license determines the number of CPCS connections allowed in GW_Connect. To view the number of CPCS connections in your license:

1. Click the **View License** button on GW_LaunchPad.
2. Expand the **Modules** node.
3. Expand the **GW_Connect** node.
4. Expand the **Restrictions** node.
5. See the **ConnectPlusConfigurationServicesCollection.Connections** value.

CPCS Connection State

The link status for this connection is the aggregate of link statuses for this connection's Gateways. (See the Manage Gateways section)

- **Comm Error:** Indicates that one or more Gateways is experiencing a communication error.
- **No Data Received:** Indicates that one or more enabled controllers has lost its connection to its Gateway or has not received data from the Gateway in the last 10 second. This can also indicate that there are no enabled Gateways.
- **Data Received:** Indicates that all enabled Gateways are connected to their Gateway and have received data within the last 10 seconds.

Link status changes (Link Up and Link Down) are sent from each Gateway. These statuses are shown in the Alerts window.

CPCS Logging

Communication to and from the Gateways is captured in the CPCS log files. The files are in JSON (JavaScript Object Notation) format and are stored in *ProgramData\Genesis\GenWatch3\Logs\GW_Connect.ConfigurationServices.Sync*. Log files are kept for five weeks.

CPCS Connection Properties

The CPCS connection includes the following properties:

- **(Name):** Alias of this connection.
- **Automatic Sync Hour:** The daily automatic sync process will start at the top of the selected hour.
 - **Never:** Automatic syncing is disabled.
 - **00:00 – 00:23:** Automatic syncing occurs at the top of the selected hour. These hours represent the hour of the time local to the GW3-TRBO host machine. To prevent issues with daylight savings, behind the scenes, GW3-TRBO converts this hour and the local GW3-TRBO host time to UTC time when check if it is time to sync.
- **Enabled:** Indicates whether this connection is enabled.
 - *True:* Connection is enabled.
 - *False:* Connection is not enabled.
- **Historical Purge Option:** The Connect module keeps a historical record of Configuration Services Group and Subscriber changes. This option determines how long until the data is purged. Options include:
 - *After 5 Weeks:* Keep data for five weeks.
 - *After 1 Year:* Keep data for one year.

Sync...

Via the automatic syncing feature, on a daily basis, user and group records are downloaded from each enabled Gateway and synced with the local GW3-TRBO database. Click the **Sync...** button to kick off an automatic sync operation. During the short period of time that a sync is in progress, requests made via REST API clients such as iVista will be delayed and other sync requests will be refused.

Manage Gateways

A CPCS connection can have multiple Gateways associated with it. Click the Manage Gateways button to open the Manage Gateways screen.

The properties for these Gateways are the following:

- **(Name):** Alias of this Gateway.
- **Enabled:** Indicates whether this Gateway is enabled.
 - *True:* Gateway is enabled.
 - *False:* Gateway is not enabled.
- **Show Link Status Notifications:** Indicates whether the user will receive GUI and event log notifications when the connection's link status goes up or down. The link goes up when data is received from a Gateway. The link goes down when a period of 10 seconds expires with no data from the Gateway.
 - *True:* Send notifications.
 - *False:* Do not send notifications.
- **Gateway Site ID:** Site ID of the Gateway (usually 255).
- **IP Address:** IP Address of the Gateway.
- **TCP Port:** TCP port of the Gateway.
- **User Name:** User name use to log into the Gateway.
- **Password:** Password use to log into the Gateway.
- **Automatic Sync Option:** Determines which direction(s) data will be sent during the sync operation. Also determines if changes made to Subscribers and Groups in Alias or via the REST API are stored locally and provisioned onto the Gateway.
 - **None:** No syncing will occur. Changes made to Subscribers and Groups in Alias or via the REST API are not stored locally and are not provisioned onto the Gateway.
 - **Bidirectional:** Syncing will occur between GW3-TRBO and the Gateway using the most current timestamp to determine the source. Changes made to Subscribers and Groups in Alias or via the REST API are stored locally and are provisioned onto the Gateway.
 - **Gateway to GW3:** Syncing will occur between GW3-TRBO and the Gateway using the Gateway as the source. Changes made to Subscribers and Groups in Alias or via the REST API are not stored locally and are not provisioned onto the Gateway.
 - **GW3 to Gateway:** Syncing will occur between GW3-TRBO and the Gateway using GW3-TRBO as the source. Changes made to Subscribers and Groups in Alias or via the REST API are stored locally and are provisioned onto the Gateway.

- **WACN ID:** WACN ID of this connection in hexadecimal format.
- **System ID:** System ID of this connection in hexadecimal format.



Selecting the wrong System ID and sending a request will cause the Gateway to reject further requests until it is rebooted.

Adding a CPCS Connection

To add a new CPCS connection, follow the steps below:

1. Click on the **Connect Plus Configuration Services** node in the **Connection** list: This will enable the + button.
2. Click the + button: This will show the *Connection Properties* with default CPCS properties.
3. Enter the CPCS connection properties.
4. Click **Manage Gateways** to open the *Manage Gateways* screen.
5. Click **Add Gateway...** This will show the setting options for a Gateway.
6. Fill in the information for the Gateway and click the **Save** button.
7. Repeat steps 5 & 6 for each Gateway.
8. Click the **Save and Close** button to return to the CPCS connection properties.
9. Click the **Save** button on the CPCS Connection: This will add the CPCS connection and associated Gateway(s).



Name must be alphanumeric to pass validation.

Updating a CPCS Connection

To update an existing CPCS connection, follow the steps below:

1. Click on the CPCS connection you wish to update: This will show the properties of the selected connection.
2. Change the desired CPCS connection properties.
10. To update gateways, click **Manage Gateways** to open the *Manage Gateways* screen.
3. Edit/Add a Gateway as desired and click the **Save** button.
4. Repeat step 3 for each Gateway you want to edit or add.
5. Click the **Save and Close** button to return to the CPCS connection properties.
6. Click the **Update** button on the CPCS Connection: This will update the CPCS connection.

Deleting a CPCS Connection

To delete an existing CPCS connection, follow the steps below:

1. Click on the CPCS connection you wish to delete: This will show the properties of the selected connection.
2. Click the **Delete** button: This will delete the selected CPCS connection.

Deleting a Gateway

To delete an existing Gateway associated with a CPCS connection, follow the steps below:

1. Click on the CPCS connection you wish to delete the Gateway(s) from and click on the **Manage Gateways** button: this will bring up the *Manage Gateways* screen.
2. Select the Gateway you wish to remove and click the **Delete** button: This will delete the selected Gateway.
3. Click the **Save and Close** button on the *Manage Gateways* form
4. Click the **Update** button on the CPCS Connection: This will save your changes.

Chapter 10 SmartPTT Subscriber GPS Connections

This chapter describes the SmartPTT Subscriber GPS connection and how it is used in GW3-TRBO.

This chapter contains the following sections:

- **SmartPTT Subscriber GPS Connection Overview:** Describes the SmartPTT Subscriber GPS connection licensing and SmartPTT Subscriber GPS connection properties.
- **Adding a SmartPTT Subscriber GPS Connection:** Describes the process of adding a SmartPTT Subscriber GPS connection.
- **Updating a SmartPTT Subscriber GPS Connection:** Describes the process of updating a SmartPTT Subscriber GPS connection.
- **Deleting a SmartPTT Subscriber GPS Connection:** Describes the process of deleting a SmartPTT Subscriber GPS Connection.

SmartPTT Subscriber GPS Connection Overview

The SmartPTT Subscriber GPS connection is used to pull subscriber GPS data from a SmartPTT RadioServer database. If the Activity screen is open at the time, records pulled from the SmartPTT RadioServer database are displayed in the Activity screen. The Archiver module stores and manages data pulled by SmartPTT Subscriber GPS connections.



NOTE: This version is known compatible with SmartPTT versions 9.0, 9.1 and 9.2

SmartPTT Subscriber GPS License

The GW3-TRBO license determines the number of SmartPTT Subscriber GPS connections allowed in Connect. To view the number of SmartPTT Subscriber GPS connections in your license:

1. Click the **View License** button on Launch.
2. Expand the **Modules** node.
3. Expand the **GW_Connect** node.
4. Expand the **Restrictions** node.
5. See the **SmartPttSubscriberGps.Connections** value.

SmartPTT Subscriber GPS Connection Properties

The SmartPTT Subscriber GPS connection includes the following properties:

- **Basic Properties**
 - **(Name):** Alias of this connection.
 - **Enabled:** Indicates whether this connection is enabled.
 - *True:* Connection is enabled.
 - *False:* Connection is not enabled.
 - **Raw Data Archive Option:** The Connect module can log all raw data received from a connection. This option determines how long this data is stored. Options include:
 - *Do Not Archive:* Do not log raw data.
 - *Archive for 1 Week:* Keep raw data for one week.
 - *Archive for 2 Weeks:* Keep raw data for two weeks.
 - *Archive for 5 Weeks:* Keep raw data for five weeks.
 - **Show Link Status Notification:** Indicates whether you will receive a GW3-TRBO GUI Notification when the link transitions from up to down or down to up.
 - *True:* Send notifications.
 - *False:* Do not send notifications.
- **SmartPTT Database**
 - **Authentication Type:** Type of authentication to use when connecting to the database.
 - **Server Name:** Name or IP Address of the SQL server.
 - **Database Name:** Name of the database on the SQL server.
 - **User Name:** User name used to authenticate to the SQL server when using SQL authentication.
 - **Password:** Password used to authenticate to the SQL server when using SQL authentication.
- **SmartPTT Pull Options**
 - **Max Pull Days:** The maximum number of days to look back when pulling data from the SmartPTT RadioServer database.
 - **Pull Interval (minutes):** The number of minutes to wait between attempts to pull data from the SmartPTT RadioServer database.

- **System**
 - **System Type:** The type of system for this connection.
 - **WACN ID:** The WACN ID of this connection in hexadecimal format.
 - **System ID:** The System ID of this connection in hexadecimal format.
 - **Zone ID:** The Zone ID of this connection.
 - **Site ID:** The Site ID of this connection. (Only settable for TRBO Capacity Plus systems)

SmartPTT Subscriber GPS Connection Statuses

Hovering the mouse over the SmartPTT Subscriber GPS connection icon will display one of the following popup messages:

1. **GW_Connect→{Connection Name} (Receiving Data):** The SmartPTT Subscriber GPS connection's last attempt to connected to and pulled records from the SmartPTT RadioServer database was successful.
2. **GW_Connect→{Connection Name} (COM Port or TCP/IP Error):** The SmartPTT Subscriber GPS connection's last attempt to connected to and pulled records from the SmartPTT RadioServer database failed, likely due to a database connection issue. See the events log for details.

Adding a SmartPTT Subscriber GPS Connection

To add a new SmartPTT Subscriber GPS connection, follow the steps below:

1. Click on the **SmartPTT Subscriber GPS** node in the **Connections** list:
This will enable the **Add Connection...** button.
2. Click the **Add Connection...** button: This will show the *Connection Properties* with default SmartPTT Subscriber GPS properties.
3. Enter the SmartPTT Subscriber GPS connection properties and click the **Update** button: This will add the SmartPTT Subscriber GPS connection.



(Name) must be alphanumeric to pass validation.

Updating a SmartPTT Subscriber GPS Connection

To update an existing SmartPTT Subscriber GPS connection, follow the steps below:

1. Click on the SmartPTT Subscriber GPS connection you wish to update:
This will show the properties of the selected connection.
2. Change the desired SmartPTT Subscriber GPS connection properties and click the **Update** button: This will update the SmartPTT Subscriber GPS connection.

Deleting a SmartPTT Subscriber GPS Connection

To delete an existing SmartPTT Subscriber GPS connection, follow the steps below:

1. Click on the SmartPTT Subscriber GPS connection you wish to delete:
This will show the properties of the selected connection.
2. Click the **Delete** button: This will delete the selected SmartPTT Subscriber GPS connection.

This chapter describes the neoTerra Subscriber GPS connection and how it is used in GW3-TRBO.

This chapter contains the following sections:

- **NeoTerra Subscriber GPS Connection Overview:** Describes the neoTerra Subscriber GPS connection licensing and neoTerra Subscriber GPS connection properties.
- **Adding a neoTerra Subscriber GPS Connection:** Describes the process of adding a neoTerra Subscriber GPS connection.
- **Updating a neoTerra Subscriber GPS Connection:** Describes the process of updating a neoTerra Subscriber GPS connection.
- **Deleting a neoTerra Subscriber GPS Connection:** Describes the process of deleting a neoTerra Subscriber GPS Connection.

NeoTerra Subscriber GPS Connection Overview

The neoTerra Subscriber GPS connection is used to connect to a neoTerra server and receive near real-time neoTerra subscriber GPS events. If the Activity screen is open subscriber GPS activity receive from the neoTerra server are displayed in the Activity screen. The Archiver module stores and manages subscriber GPS data received from the neoTerra server.



NOTE: This version is known compatible with neoTerra version 1.0.6.

NeoTerra Subscriber GPS License

The GW3-TRBO license determines the number of neoTerra Subscriber GPS connections allowed in Connect. To view the number of neoTerra Subscriber GPS connections in your license:

1. Click the **View License** button on Launch.
2. Expand the **Modules** node.
3. Expand the **GW_Connect** node.
4. Expand the **Restrictions** node.
5. See the **NeoTerraSubscriberGps.Connections** value.
 - a. NOTE: This entry is case-sensitive

NeoTerra Subscriber GPS Connection Properties

The neoTerra Subscriber GPS connection includes the following properties:

- **Basic Properties**
 - **(Name):** Alias of this connection.
 - **Enabled:** Indicates whether this connection is enabled.
 - *True:* Connection is enabled.
 - *False:* Connection is not enabled.
 - **Raw Data Archive Option:** The Connect module can log all raw data received from a connection. This option determines how long this data is stored. Options include:
 - *Do Not Archive:* Do not log raw data.
 - *Archive for 1 Week:* Keep raw data for one week.
 - *Archive for 2 Weeks:* Keep raw data for two weeks.
 - *Archive for 5 Weeks:* Keep raw data for five weeks.
 - **Show Link Status Notification:** Indicates whether you will receive a GW3-TRBO GUI Notification when the link transitions from up to down or down to up.
 - *True:* Send notifications.
 - *False:* Do not send notifications.
- **neoTerra Connection**
 - **Server Name:** Name or IP Address of the neoTerra server.
 - **Port:** TCP/IP port to connect to on the neoTerra server.
- **System**
 - **System Type:** The type of system for this connection.
 - **WACN ID:** The WACN ID of this connection in hexadecimal format.
 - **System ID:** The System ID of this connection in hexadecimal format.
 - **Zone ID:** The Zone ID of this connection.
 - **Site ID:** The Site ID of this connection. (Only settable for Capacity Plus systems)

NeoTerra Subscriber GPS Connection Statuses

Hovering the mouse over the neoTerra Subscriber GPS connection icon will display one of the following popup messages:

1. **GW_Connect→{Connection Name} (Receiving Data):** The neoTerra Subscriber GPS connection is connected to the neoTerra server and at least receiving ping response packets.
2. **GW_Connect→{Connection Name} (COM Port or TCP/IP Error):** The neoTerra Subscriber GPS connection's last attempt to connect to the neoTerra server failed, likely due to a TCP connection issue. See the events log for details.

Adding a neoTerra Subscriber GPS Connection

To add a new neoTerra Subscriber GPS connection, follow the steps below:

1. Click on the **neoTerra Subscriber GPS** node in the **Connections** list:
This will enable the **Add Connection...** button.
2. Click the **Add Connection...** button: This will show the *Connection Properties* with default neoTerra Subscriber GPS properties.
3. Enter the neoTerra Subscriber GPS connection properties and click the **Update** button: This will add the neoTerra Subscriber GPS connection.



(Name) must be alphanumeric to pass validation.

Updating a neoTerra Subscriber GPS Connection

To update an existing neoTerra Subscriber GPS connection, follow the steps below:

1. Click on the neoTerra Subscriber GPS connection you wish to update:
This will show the properties of the selected connection.
2. Change the desired neoTerra Subscriber GPS connection properties and click the **Update** button: This will update the neoTerra Subscriber GPS connection.

Deleting a neoTerra Subscriber GPS Connection

To delete an existing neoTerra Subscriber GPS connection, follow the steps below:

1. Click on the neoTerra Subscriber GPS connection you wish to delete: This will show the properties of the selected connection.
2. Click the **Delete** button: This will delete the selected neoTerra Subscriber GPS connection.

Information on Raw Data Files

GW3-TRBO stores raw data files on your GW3-TRBO computer. Genesis and Motorola support personnel use these files to help diagnose issues you may have with GW3-TRBO.

By default, GW3-TRBO will keep five weeks (approximately 2 GB) worth of raw data files. You may wish to conserve hard drive space by choosing to keep only one week's worth of raw data files. We suggest you keep the full five weeks, just in case it takes you awhile to notice an issue.

These raw data files are stored in the following directory:

ProgramData\Genesis\GenWatch3\RawData\<Connection Type>

Depending on the connection type, one or more additional subfolders may be used to partition the raw data by connection or system hierarchy.

The files in this directory are in the following format:

GW3_<year><month><day>_<hour>.RAW

For example, the raw data file for the 3 p.m. hour on 10/12/2010 would be:

GW3_20101012_15.RAW



In the above directory paths, *<Connection Type>* should be replaced with the name of the connection type (e.g., *ConnectPlus* or *APM*.)

Changing the Raw Data File Directory

Changing the GW3-TRBO raw data directory is usually a bad idea. Support personnel will find it convenient if these files are always in the same place. However, if you have a small partition (small disk space) on drive C, you may wish to move this archive operation to another drive. To change the raw data file directory, take the following steps:

1. Browse to the GW3-TRBO installation directory. By default this folder is *C:\ProgramData\Genesis\GenWatch3*.
2. Double-click on the following file: *GenWatch3.config*: This may result in a dialog asking you to choose an application to use to open this file. In this case, choose Microsoft Notepad.



```
GenWatch3.config - Notepad
File Edit Format View Help
<Settings>
<ServerName>WILBUR</ServerName>
<GW3ServerName>WILBUR</GW3ServerName>
<RawDataFilePath>C:\ProgramData\Genesis\GenWatch3\RawData</RawDataFilePath>
<ThrottleRate>200</ThrottleRate>
<LicensePath>C:\Genesis\GenWatch3</LicensePath>
<MaxDatabaseSize>9000</MaxDatabaseSize>
</Settings>
```

Figure 12.1 – GenWatch3.config File

3. Change the value in the `<RawDataFilePath></RawDataFilePath>` tag to the desired raw data file path. (i.e. *E:\RawData* or *D:\RawData*). Make sure the path you choose is a valid hard drive, not a CD-ROM or DVD drive)
4. Click **File**→**Save** to save your changes.
5. GenWatch3 may take up to one hour to recognize this change.
6. If you wish to expedite this change, you can do so by updating an existing ConnectPlus connection in the Connect GUI. (i.e. selecting a ConnectPlus connection in the Connect GUI's **Connections** List and clicking the **Update** button)



Warning: Make sure you only change the `RawDataFilePath` tag. Changing *GenWatch3.config* tags in other areas can cause your computer to become unstable or even unusable. When in doubt, ask for assistance from your IT department or Genesis support.

GW3-TRBO stores subscriber GPS event data from third-party vendors. This data is stored by the Archiver module in the *ARC_SubscriberGpsEvents* table. On a specified interval, Archiver correlates new records in the *ARC_SubscriberGpsEvents* to records in *ARC_Calls* to determine the SiteId and/or RSSI value of the subscriber GPS event. To match an *ARC_Calls* entry during correlation, an *ARC_SubscriberGpsEvents* entry must:

- Share the same WacId, SystemId, ZoneId and SubscriberId as a record in *ARC_Calls*.
- Occur within one second of the start of the call, during the call or within one second of the end of the call.

ARC_SubscriberGpsEvents data with a SiteId and RSSI value is used to provide near-real time coverage data for reporting features such as the GPS REST API.



See the *GenWatch3.config Settings* section of the Archiver module book for information on the *SubscriberGpsEventsCorrelationInterval* setting.