



GenWatch3®
GW_Connect
Software Version 2.15
Module Book

GenWatch₃

600-2.15.0-MM.1
6/25/2018

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Refer to the *Troubleshooting & Support* section of the GenWatch3 Manual Shell (Book 600-2.15.0-AA.1) for complete support and contact information.

Document History

Revision	Description	Author
2.0.5	Initial Release	JAW
2.0.6	Updated screenshots	CLB
2.0.6.6	Revisions for Release	TDW
2.0.6.11	Added AMNP Connection	KIH
2.2	Revision before release	CWF
2.3	Revisions Before Release	CWF
2.4	Revisions Before Release	CWF
2.5	Revisions Before Release	CWF
2.5	Added APM section	JAW
2.5	Added Connection Status section; minor edits	REB
2.5	Clarified CADI Manage Zone Controllers section	WRK
2.5	Updated CADI Connection w/ ID Formats	WRK
2.6	Revisions Before Release	CWF
2.7	Updated CADI Connection	WRK
2.7	Revisions Before Release	JAW
2.8	Revisions Before Release	WRK
2.9	Revisions Before Release	REB
2.9	Clarified raw data path.	REB
2.10	Revisions Before Release	WRK
2.10	Added PMI version description	JAW
2.11	Converted to Docx format	CWF
2.11	Added descriptions of connection types	WES
2.12	Revisions Before Release	JAW
2.13	Revisions Before Release	ATG
2.14	Revisions Before Release	JAW
2.15	Revisions Before Release	REB
2.15	Added UNS Connections chapter	JPS
2.15	Removed REST API connection type.	REB

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Goals

This manual describes the role and function of the GW_Connect module in the GenWatch3 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 GW_Connect module.
- **SNMP Connections:** Describes how to create and manage SNMP (Simple Network Management Protocol) connections. See this section for a description of SNMP.
- **APM Connections:** Describes how to create and manage connections to an Advanced Power Management server.
- **HPD Connections:** Describes how to create and manage connections to GenGET's High Performance Data (HPD) data sources.
- **CADI Connections:** Describes how to create and manage connections to Computer-Aided Dispatch Consoles.
- **PMI Connections:** Describes how to create and manage connections to ASTRO 25 Provisioning Managers.
- **UNS Connections:** Describes how to create and manage connections to ASTRO 25 UNS Servers.
- **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 GW_Connect module and its function within the GenWatch3 solution.

This chapter contains the following sections:

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

What is GW_Connect?

GW_Connect is a module that allows you to set up connections to the following GenWatch3 data sources:

- **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.
- **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.
- **HPD: High Performance Data** is a system by Motorola to enable rapid information delivery on ASTRO 25 networks. Refer to the *HPD Connections* section of this manual for more information.
- **CADI: Computer-Aided Dispatch Interface** allows filtering, relaying and processing of data from CAD consoles. Refer to the *CADI Connections* section of this manual for more information.
- **PMI: Provisioning Manager Interface** is the connection between GenWatch3 and an ASTRO 25 Zone Core. Refer to the *PMI Connections* section of this manual for more information.
- **UNS: UNS** is the connection between GenWatch3 and an ASTRO25 UNS 5.0 server for requesting and receiving location and presence information about devices on a system. Refer to the *UNS Connections* section of this manual for more information.

GW_Connect connections translate their proprietary data into GenWatch3 packets and send these packets to GenWatch3 for processing. Some connections are bidirectional. This means that they receive and send data to their connection.

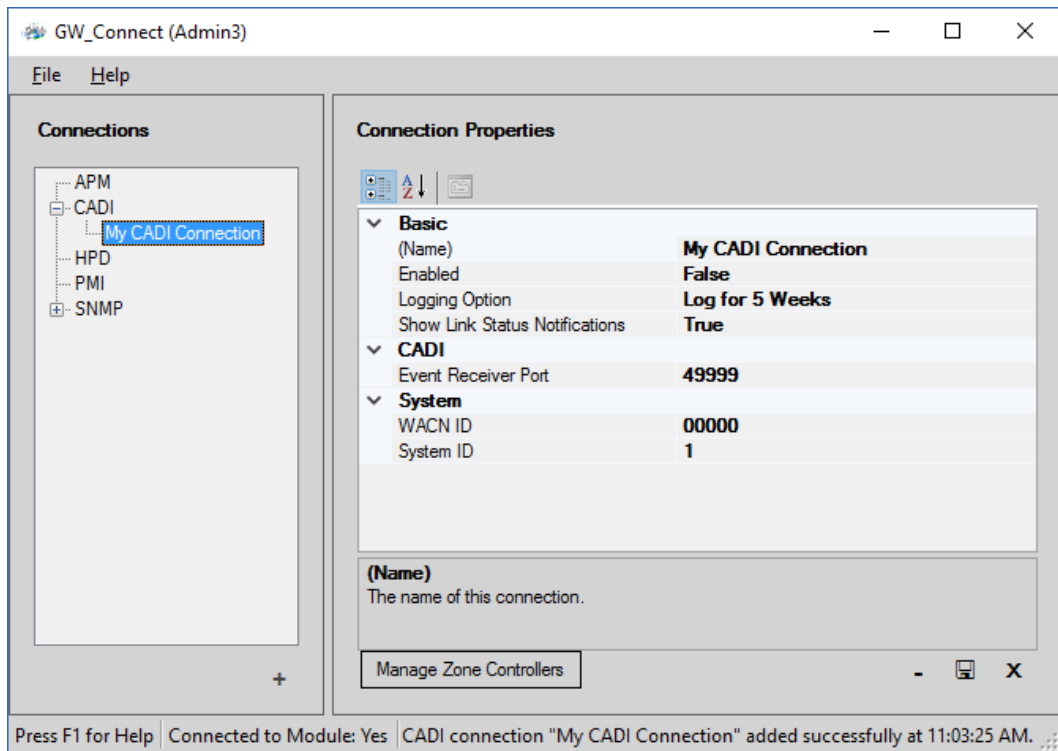





Figure 1.1 – GW_Connect GUI

Connection Status

Each connection shown in the **Connections** list, on the left side of the GW_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 status unknown or encountering an error (white)
-  : Connection to a data source is periodically receiving data (green). The time interval varies by connection type.
-  : Connection has not received data from its data source for a period of time (red). The amount of time varies by connection type.

This chapter describes SNMP (Simple Network Management Protocol) and how it is used in GenWatch3.

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 GenWatch3 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 GW_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 GenWatch3 license determines the number of SNMP connections allowed in GW_Connect. To view the number of SNMP 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 **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 GW_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.
- **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.
- **Port:** Port 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 GenWatch3 as SNMP Object Identifiers (OIDs) with a value. GenWatch3 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.

This chapter describes the APM (Advanced Power Management) by RFI and how it is used in GenWatch3.

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 GenWatch3 license determines the number of APM connections allowed in GW_Connect. To view the number of APM 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 **APM.Connections** value.

APM Connection Properties

The APM 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.
- **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 GW_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 if you will receive a GenWatch3 GUI Notification when the link transitions from up to down or down to up.
- **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.
- **RFSS ID:** The RFSS 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 **Connection** 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, RFSS, Site and Subsite to specific frequencies, overriding the WACN, System, RFSS, 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.
- **RFSS ID:** The RFSS 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 how GenWatch3 allows connections to GenGET's High Performance Data (HPD) data sources and how they are used in GenWatch3.

This chapter contains the following sections:

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

HPD Connection Overview

HPD License

The GenWatch3 license determines the number of HPD connections allowed in GW_Connect. To view the number of HPD 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 **HPD.Connections** value.

HPD Connection Properties

The HPD 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 GW_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 if you will receive a GenWatch3 GUI Notification when the link transitions from up to down or down to up.
- **Server:** IP address of the primary GenGET HPD connection.
- **Port:** Port of the primary GenGET HPD connection.

Adding an HPD Connection

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

1. Click on the **HPD** 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 HPD properties.
3. Enter the HPD connection properties and click the **Update** button: This will add the HPD connection.



Name must be alphanumeric to pass validation.

Updating an HPD Connection

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

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

Deleting an HPD Connection

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

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

This chapter describes CADI (Computer-Aided Dispatch Interface) and how it is used in GenWatch3.

This chapter contains the following sections:

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

CADI Connection Overview

CADI License

The GenWatch3 license determines the number of CADI connections allowed in GW_Connect. To view the number of CADI 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 **CADI.Connections** value.

CADI Connection Properties

The CADI 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.
- **Logging Option:** The GW_Connect module can log all data received from a connection. This option determines how long this data is stored. Options include:
 - *Log for 1 Week:* Keep data for one week.
 - *Log for 2 Weeks:* Keep data for two weeks.
 - *Log for 5 Weeks:* Keep data for five weeks.
- **Show Link Status Notification:** Indicates if you will receive a GenWatch3 GUI Notification when the link transitions from up to down or down to up.

- **Event Receiver Port:** The port the CADI connection provides to the port mapper for negotiating communication between the CADI connection and the CADI host.
- **WACN ID:** The WACN associated with this connection.
- **System ID:** The system associated with this connection.

Manage Zone Controllers

A CADI connection can have multiple zone controllers associated with it. For interzone trunking capable systems, it is only necessary to have a connection to the zone configured to control the talkgroups belonging to your security group.



In a multi-zone system that is not interzone trunking capable, a CADI connection will be needed for each zone controller that you wish to issue commands to.

The properties for these zone controllers are as follows:

- **Zone ID:** The ID of the zone controller (must be unique).
- **Hostname/IP Address:** The hostname or IP Address of the zone controller.
- **Port:** The port to connect to on the zone controller.
- **Program Number:** the number that Portmapper uses to identify the CADI on the zone controller.
- **Program Version:** Selection of the RPC version.
- **Username:** Used to authenticate to the zone controller.
- **Password:** Used to authenticate to the zone controller.
- **Encrypted:** Specify if the credentials are encrypted or not.
- **Unit ID Format:** Select the format that the Zone Controller expects for Unit IDs.
 - **Numeric**
 - **7xxxxx**
- **Talkgroup ID Format:** Select the format that the Zone Controller expects for Talkgroup IDs.
 - **Numeric**
 - **8xxxxx**
 - **8xxxxxxx**



Each zone controller of a CADI connection must have unique Zone ID. Attempting to add multiple Zone controllers with the same zone will result in a validation failure.

Adding a CADI Connection

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

1. Click on the **CADI** 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 CADI properties.
3. Enter the CADI connection properties.
4. Add Zone Controllers as desired and click the **Save** button on the *Manage Zone Controllers* form.
5. Click the **Update** button on the CADI Connection: This will add the CADI connection and associated zone controller(s).



Name must be alphanumeric to pass validation.

Updating a CADI Connection

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

1. Click on the CADI connection you wish to update: This will show the properties of the selected connection.
2. Change the desired CADI connection properties.
3. Edit/Add Zone Controllers as desired and click the **Save** button on the *Manage Zone Controllers* form
4. Click the **Update** button on the CADI Connection: This will update the CADI connection.

Deleting a CADI Connection

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

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

Deleting a Zone Controller

To delete an existing Zone Controller associated with a CADI connection, follow the steps below:

1. Click on the CADI connection you wish to delete the Zone Controller(s) from and click on the *Manage Zone Controllers* button: this will bring up the *Manage Zone Controllers* form.
2. Select the Zone Controller you wish to remove and click the **Delete** button: This will delete the selected Zone Controller.

This chapter describes the PMI (Provisioning Manager Interface) by Motorola and how it is used in GenWatch3.

This chapter contains the following sections:

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

PMI Connection Overview

What is PMI?

PMI is the interface for the Motorola ASTRO 25. This interface allows application providers to easily add the ability to provision on ASTRO 25 with a single point of entry without risk to the integrity of the process.

If the PMI connection and the Trio module are included in your license requests to add, update and delete resources (radios) in Trio, are propagated down to the PMI interface. See the Trio manual for more information on its interaction with PMI.

If the PMI connection and the GenIIB module with the PMI feature are included in your license, third parties can use the GenIIB interface to perform Get, GetList, Add, Update and Delete operations on the “provisionable” PMI resources (such as groups, radios, channels, etc.). See the GenIIB manual and its appendices for more information on the GenIIB interface for PMI.

PMI License

The GenWatch3 license determines the number of PMI connections allowed in GW_Connect. To view the number of PMI 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 **PMI.Connections** value.

PMI Connection Properties

The PMI 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 GW_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 if you will receive a GenWatch3 GUI Notification when the link transitions from up to down or down to up.
- **Pmi Server:** Name of the computer hosting the PMI server.
- **Version:** Version of the PMI server. See PMI Compatibility section below for supported versions.
- **Verbose Logging:** Indicates if a detailed log of PMI traffic packets should be logged.
 - *True:* Verbose logging is enabled.
 - *False:* Verbose logging is not enabled.
- **User Name:** User name used to connect with the PMI server.
- **Password:** Password used to connect with the PMI server.
- **WACN ID:** The WACN ID for the resources managed by this PMI connection.
- **System ID:** The System ID for the resources managed by this PMI connection.
- **UNC Password:** Password used during distribution (notifying the PMI server that its database has changed)
- **UNC User Name:** User name used during distribution (notifying the PMI server that its database has changed)

PMI Compatibility

This version of GenWatch3 supports the following versions of PMI:

- 0100
- 0200
- 0300
- 0400
- 0500



Version selection is performed automatically. The PMI connection will attempt a connection with each known version, starting with the newest, until the PMI verifies the correct version. The Administrator user will receive a GUI Notification when the version is automatically changed.



The Motorola Hardening Kit is not supported on GenWatch3 hosts for use with PMI versions 0100 and 0200.

Initial Load

Each time the host service is started or the PMI connection is updated, the PMI module requests a list of resource on the PMI server. The more resources of a given type (such as talkgroups or IVD radios), the more time this initial load requires. These resources are retrieved in chunks of 100. Each chunk requires about ½ second to receive. Each chunk beyond the first requires ½ second, plus an addition ¼ of a second. These delays add up quickly. A list of 125,000 IVD Radios requires almost 1.5 hours to load where the last chunk of 100 takes almost 9 seconds to receive from the PMI server.

Adding a PMI Connection

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

1. Click on the **PMI** 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 PMI properties.
3. Enter the PMI connection properties and click the **Update** button: This will add the PMI connection.



Name must be alphanumeric to pass validation.

Updating a PMI Connection

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

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

Deleting a PMI Connection

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

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

This chapter describes how GenWatch3 allows connections to a Motorola UNS 5.0 server and how they are used in GenWatch3.

This chapter contains the following sections:

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

UNS Connection Overview

UNS License

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

6. Click the **View License** button on GW_LaunchPad.
7. Expand the **Modules** node.
8. Expand the **GW_Connect** node.
9. Expand the **Restrictions** node.
10. See the **UNS.Connections** value.

UNS Connection Properties

The UNS 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.
- **Legacy Connection:** Indicates whether the connection will create a legacy connection to send/receive information with the GW_Location module for backward compatibility.
- **Raw Data Archive Option:** The GW_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 if you will receive a GenWatch3 GUI Notification when the link transitions from up to down or down to up.
- **Client Port:** Port to be used for the Legacy Connection. The GenWatch3 Location module will connect on this port.
- **Legacy Client Application ID:** Application ID used by the Legacy Connection.
- **Legacy Client Unit of Measure:** The Unit of Measure to be used when translating UNS location data into the format for the Legacy Connection.
- **Agency Domain:** Domain name of the agency.
- **All Devices Group:** Name of the Group configured on the UNS server which has access to all devices.
- **UNS API Host:** Hostname of the Core UNS server on the network.
- **Use SSL:** Indicates whether SSL should be used when connecting to the UNS API Host.
- **REST Group API Port:** Port used by the REST Group API on the UNS API Host.
- **REST Location API Port:** Port used by the REST Location API on the UNS API Host.
- **REST Presence API Port:** Port used by the REST Presence API on the UNS API Host.
- **WebSocket Group API Port:** Port used by the WebSocket Group API on the UNS API Host.
- **WebSocket Location API Port:** Port used by the WebSocket Location API on the UNS API Host.
- **WebSocket Presence API Port:** Port used by the WebSocket Presence API on the UNS API Host.

- **Client ID:** Client ID issued for this UNS deployment.
- **Client Secret:** Client secret issued for this UNS deployment.
- **Identity Server Host Name:** The hostname of the identity server.
- **Identity Server Port:** Port used by the identity server.
- **WACN ID:** The WACN ID for the resources managed by this UNS connection.
- **System ID:** The System ID for the resources managed by this UNS connection.

Adding a UNS Connection

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

4. Click on the **UNS** node in the **Connection** list: This will enable the **Add Connection...** button.
5. Click the **Add Connection...** button: This will show the *Connection Properties* with default UNS properties.
6. Enter the UNS connection properties and click the **Update** button: This will add the UNS connection.



Name must be alphanumeric to pass validation.

Updating a UNS Connection

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

3. Click on the UNS connection you wish to update: This will show the properties of the selected connection.
4. Change the desired UNS connection properties and click the **Update** button: This will update the UNS connection.

Deleting a UNS Connection

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

3. Click on the UNS connection you wish to delete: This will show the properties of the selected connection.
4. Click the **Delete** button: This will delete the selected UNS connection.

Legacy UNS Connections

To provide backward compatibility to LRRP clients that do not support UNS 5.0, the UNS Connection can serve as an intermediary between a GW_Location module connection and the UNS. This will translate the location data provided by the UNS into the LRRP format and distribute that data to the clients.

To create a legacy UNS connection as an intermediary with the UNS, first follow the steps in the *Adding a UNS Connection* section above. Next, you will need to create a connection in the GW_Location module that will connect to the legacy UNS connection. See the GW_Location module book for more information about creating a GW_Location connection.

In the GW_Location connection:

- The **MUPS Server** should be set to the string *localhost*. Any other value could result in problems related to DNS resolution.
- The **MUPS TCP/IP Port** must match the **Client Port** setting in your UNS connection.
- The **Application Id** must match the **Legacy Client Application ID** in your UNS connection.
- The UNS connection supports only the Immediate Location Request command. Therefore, any **Authorized Clients** created in the GW_Location connection should check only the **Immediate Location Request Enabled?** checkbox.
- The **Unit of Measure** must match the **Legacy Client Unit of Measure** setting in your UNS connection.
 - UNS 5.0 data uses metric units, such as speed values being in meters per second. But GW_Location expects LRRP speeds to be either miles-per-hour or kilometers-per-hour. Matching this setting ensures the speeds are translated and processed correctly by both ends.



In UNS 5.0, direction/bearing values can be fractional degrees. The LRRP format expects only whole degrees. The UNS connection will truncate the fractional portion of UNS 5.0 direction values when converting to the LRRP format.

Information on Raw Data Files

GenWatch3 stores raw data files on your GenWatch3 computer. Genesis and Motorola support personnel use these files to help diagnose control channel decode issues you may have with GenWatch3.

By default, GenWatch3 will keep five weeks (approximately 2 GB) worth of raw data files. You may wish to conserve hard drive space by choosing to only keep 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 a control channel decode 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 the system hierarchy. Folders after the *<Connection Type>* folder will follow this order: *<WACN ID>\<System ID>\<Zone ID>\<Site ID>\<Subsite ID>*.

For example, in the default GenWatch3 installation directory, if the WACN ID is BEE00, the System ID is 1404, the Zone ID is 1 and the Site ID is 10, the GenWatch3 raw data directory is:

C:\ProgramData\Genesis\GenWatch3\RawData\<Connection Type>\BEE00\1404\1\10

The files in this directory are in the following format:

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

The raw data file for the 3:00 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., *SNMP*.)

Changing the Raw Data File Directory

Changing the GenWatch3 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 GenWatch3 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 8.1 – 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 connection in the GW_Connect GUI. (i.e. selecting a connection in the GW_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.