



**GenWatch3®**  
**GW\_Connect**  
**Software Version 2.16.4**  
**Module Book**

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**GenWatch<sub>3</sub>**

**600-2.16.4-MM.1**  
**4/5/2019**



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Refer to the *Troubleshooting & Support* section of the GenWatch3 Manual Shell (Book 600-2.16.4-AA.1) for complete support and contact information.

## Document History

Revision	Description	Author
2.0.5	Initial Release	JAW
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2.15	Added UCS Connections chapter	ATG
2.15	Added Primary/Backup zone controller setting.	REB
2.16	Renamed UNS connection to IMW and updated settings.	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.
- **IMW Connections:** Describes how to create and manage connections to IMW 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:

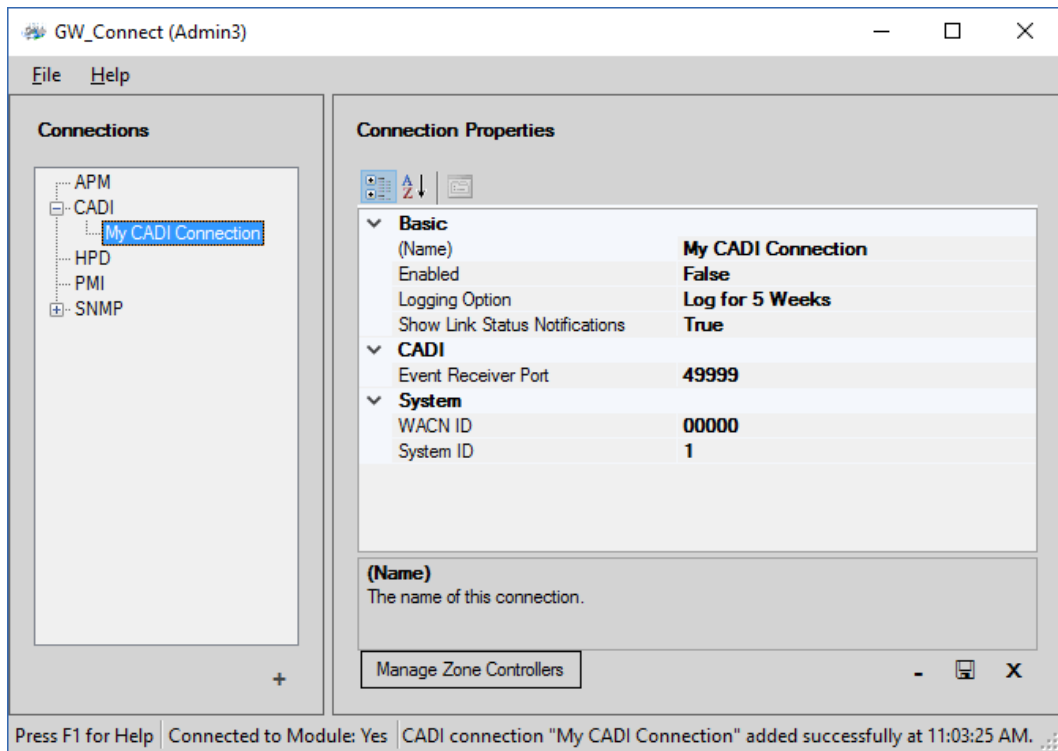
- **What Is GW\_Connect?:** Describes the role and function of the GW\_Connect module.
- **GW\_Connect Features:** Describes the features of the GW\_Connect GUI (graphical user interface).

### **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.
- **UCS: UCS** is the connection between GenWatch3 and a Dimetra UCS server. Refer to the *UCS Connections* section of this manual for more information.
- **IMW: IMW** is the connection between GenWatch3 and an IMW server for requesting and receiving location and presence information about devices on a system. Refer to the *IMW 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.
- **Hostname/IP Address:** The hostname or IP Address of the zone controller.
- **Port:** The port to connect to on the zone controller.
- **Primary/Backup:** Specifies whether the zone controller is the primary or backup core for its zone ID. When a zone has both a primary and backup core, any commands sent by clients targeting that zone will be delivered to the active core.
- **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**



Within a CADI connection, each zone ID can have at most one zone controller designated as primary and one as backup. Attempting to add multiple zone controllers with the same **Zone ID** and **Primary/Backup** designation 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
- 0510
- 0600



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 UCS server and how they are used in GenWatch3.

This chapter contains the following sections:

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

### *UCS Connection Overview*

#### **UCS License**

The GenWatch3 license determines the number of UCS connections allowed in GW\_Connect. To view the number of UCS 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 **UCS.Connections** value.

## UCS Connection Properties

The UCS 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.
- **Password:** Password used to connect to the UCS server.
- **UCS Host Name:** The hostname of the UCS server.
- **UCS Port:** Port to be used for the UCS server.
- **User Name:** User name used to connect to the UCS server.
- **WACN ID:** The WACN ID for the resources managed by this UCS connection.
- **System ID:** The System ID for the resources managed by this UCS connection.



## Adding a UCS Connection

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

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



Name must be alphanumeric to pass validation.

## Updating a UCS Connection

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

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

## Deleting a UCS Connection

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

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



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

This chapter contains the following sections:

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

### *IMW Connection Overview*

#### **IMW License**

The GenWatch3 license determines the number of IMW connections allowed in GW\_Connect. To view the number of IMW 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 **IMW.Connections** value.

## IMW Connection Properties

The IMW 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.
- **Location Processor:** Specifies where location data is processed.
  - *IMW Connection:* This connection processes all data from an IMW.
  - *Legacy Connection:* This connection serves as an intermediary between the GW\_Location module and an IMW for backward compatibility.
  - *IMW Connection and Legacy MUPS Clients:* This connection processes all data from an IMW and forwards location data to the GW\_Location module for backward compatibility with MUPS clients.
- **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.
- **Update Aliases:** Indicates whether the GW\_Alias module should update aliases for IDs, Talkgroups, and Sites with aliases received in presence events from the IMW server. Enable only if it is known that the aliases received from the IMW match the aliases received from any ATIA connection(s) configured for the same system.
- **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 IMW location data into the format for the Legacy Connection.
- **All Devices Group:** Name of the Group configured on the IMW server which has access to all devices.
- **Include Presence Events:** Toggles whether to subscribe to presence events from the IMW server.
- **Primary Server Settings:** The settings for the server (primary in a DSR).
  - **Agency Domain:** Domain name of the agency.

- **IMW Hostname:** Hostname of the Core IMW server on the network.
- **Use SSL:** Indicates whether SSL should be used when connecting to the IMW.
- **Client ID:** Client ID issued for this IMW deployment.
- **Client Secret:** Client secret issued for this IMW deployment.
- **Identity Server Host Name:** The hostname of the identity server.
- **Identity Server Port:** Port used by the identity server.
- **REST Location API Port:** Port used by the REST Location API on the IMW.
- **REST Presence API Port:** Port used by the REST Presence API on the IMW.
- **WebSocket Location API Port:** Port used by the WebSocket Location API on the IMW.
- **WebSocket Presence API Port:** Port used by the WebSocket Presence API on the IMW.
- **Enable Secondary Server:** If the server is in a DSR configuration, configures whether to connect to a secondary server as well.
- **Secondary Server Settings:** Settings for the secondary server in a DSR.
  - Contains all the same settings as the Primary server. See above for details.
- **WACN ID:** The WACN ID for the resources managed by this IMW connection.
- **System ID:** The System ID for the resources managed by this IMW connection.

## Adding an IMW Connection

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

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



Name must be alphanumeric to pass validation.

## Updating an IMW Connection

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

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

## ***Deleting an IMW Connection***

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

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

## Legacy Location Connections

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

To create a legacy location connection as an intermediary with the IMW, first follow the steps in the *Adding an IMW Connection* section above. Next, you will need to create a connection in the GW\_Location module that will connect to the legacy location 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 IMW connection.
- The **Application Id** must match the **Legacy Client Application ID** in your IMW connection.
- The IMW 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 IMW connection.
  - IMW 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 IMW, direction/bearing values can be fractional degrees. The LRRP format expects only whole degrees. The IMW connection will truncate the fractional portion of IMW 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.