GENWATCH® UEM ENHANCEMENT

CONTROL THE CLUTTER • IMPROVE WORKLOAD PRIORITIZATION • TAKE OUT THE GUESSWORK

GenWatch3® Unified Event Manager is an enhancement to GenWatch ATIA and allows Radio System Managers to monitor Simple Network Management Protocol (SNMP) traps from devices operating on a Motorola ASTRO® 25 radio system. (Note, a device could be anything that is able to send SNMP.) By using the GenWatch UEM software, Radio System Managers are able to capture, assign the severity of, and organize these traps, which helps them address each quickly, and prioritize workloads more efficiently.

All traps are sent to GenWatch via the Motorola UEM Northbound Interface (NBI), or direct from an SNMP enabled device, and are classified as either an event or an alarm. Each time the Motorola UEM polls a device on the system, an 'event' record is created. SNMP enabled devices "send", not poll for, an alarm record.

Figure 1: Basic Single Zone System Diagram with UEM

Once an event or alarm occurs, it is processed and centrally stored in the same Microsoft SQL datatables as GenWatch ATIA for as long as needed. From there, Radio System Managers are able to run reports and/or generate important notifications on specific events and/or alarms. GenWatch UEM related activity is viewable in the Activity Module within the GenWatch desktop application, as well as in the iVISTA browser-delivered solution.

To address the large volume of events and alarms received by the Motorola UEM, the GenWatch UEM is able to "throttle" the number sent to a more manageable rate. Those same events can also be "filtered" based on what a Radio System Manager would like to see, and/or "forwarded" to an upstream manager. Filtered events or alarms are still being archived even though they may not appear within iVISTA.
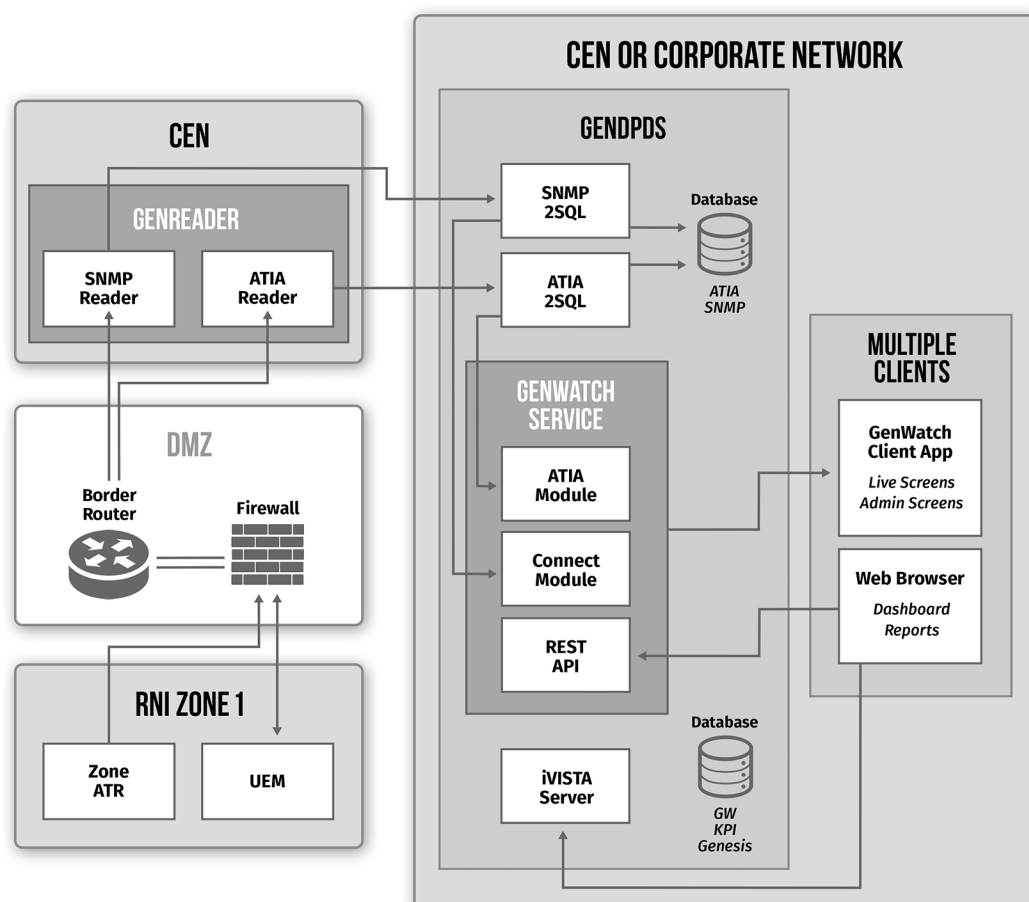
Figure 1 shows what a basic single zone system diagram with GenWatch UEM would look like. The Motorola UEM port sends the SNMP traps, again through the NBI, to a GenWatch Reader (Reader). The Reader listens for that data via UDP and passes it to the GenWatch Data Processor (DP) as TCP/IP. The DP then takes the packets, parses them out, and sends them to the GenWatch Data Server (DS), which writes the information into SQL datatables. The DP also provides the data feed to the GenWatch Host (Host) for the desktop application Modules and iVISTA. All GenWatch Clients connect to the Host. If connection issues arise between the Reader and the DP, the Reader will buffer for about 30 days to avoid losing any data.

GENWATCH3 UEM ENHANCEMENT

GENWATCH® ATIA AND MOTOROLA LICENSES ARE REQUIRED

As previously mentioned, GenWatch UEM is an enhancement to GenWatch ATIA; therefore GW3 ATIA must be deployed first. The GW3 UEM software resides on the same Reader and DPDS as GenWatch ATIA so no additional hardware is needed. The software license is also perpetual and licensed by the zone. Prior to installing and using GenWatch UEM, Motorola will need to license the NBI.

GENWATCH UEM COMPLIES WITH IT SECURITY BEST PRACTICES

The GenWatch UEM, as well as GenWatch ATIA, software complies with IT Security best practices. iVISTA, in particular, is SSL encrypted and supports up to TLS 1.2. Since iVISTA is a browser-delivered solution, it can be deployed securely on the internet or intranet and has no limit to the number of users that can be given secure login credentials.

MANAGE ALL EVENT OR ALARM ACTIVITY IN A CENTRALIZED VIEW

The GenWatch UEM activity is displayed within the iVISTA Map Display. This is the same map used to show the GenWatch ATIA traffic. iVISTA includes a map tile server, Open Street Maps, to view the location of each monitored device requiring no internet connection to run the application. Radio System Managers may choose to use an ESRI or any GIS map as well as Google Maps.

Devices are manually assigned to a location on the map. The devices' current alarm state, as reported by the Motorola UEM, is shown and represented by a pin icon (*Figure 2*).

The color of the pin represents the severity level of any or all alarms at a particular location. If desired, a Radio System Manager can elect to set a Severity Threshold which would change the color of the pin icon to either green or red thereby simplifying what is seen. If, for example, the Severity Threshold is set to "Major", all alarms with that classification or above will have a red pin color. Anything below "Major" would have a green pin color. The threshold is set and activated from the gear icon located on the left-hand menu of the iVISTA Map Display under the SNMP section (*Figure 2*).
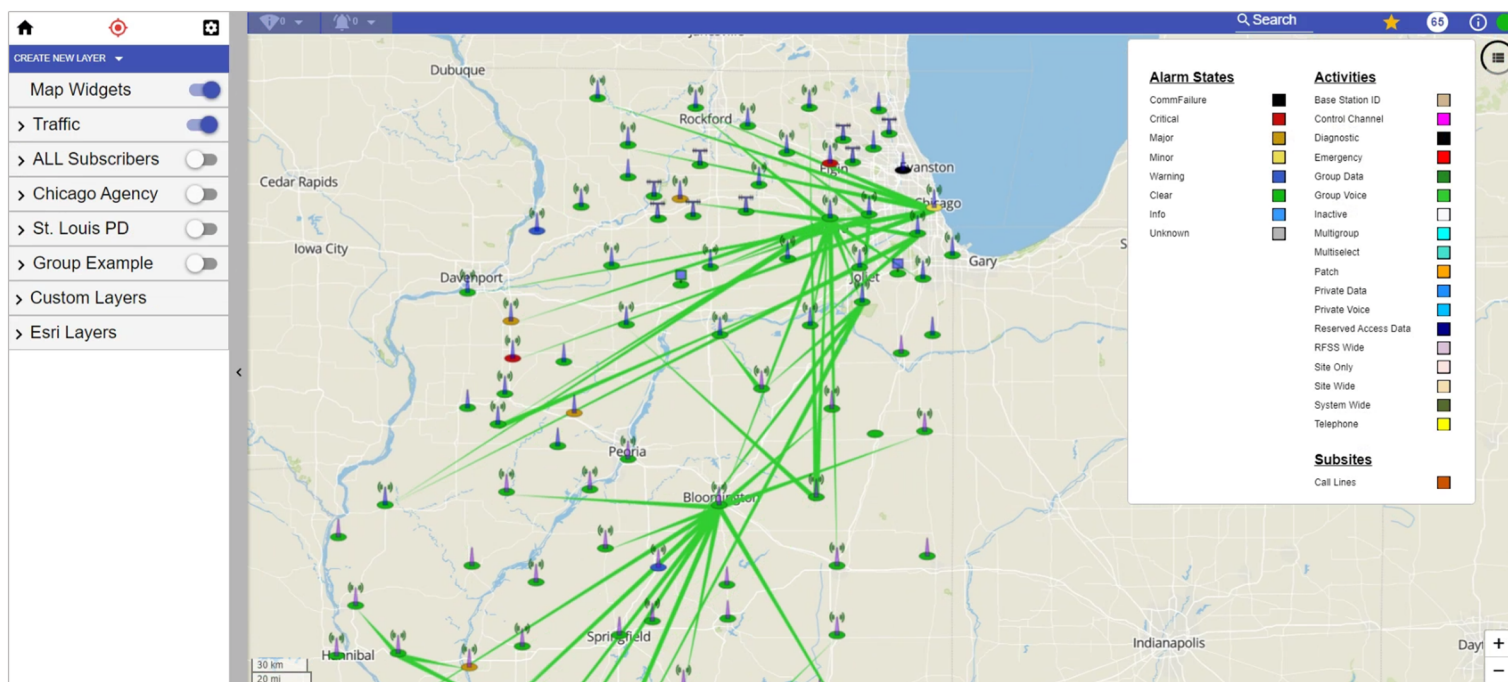

Figure 2: GW3 UEM Enhancement Map Display

Selecting each icon will open up a window (*Figure 3*) with the timestamp, most severe alarm status of all devices at that site, and another link to view the list of devices operational at that site.
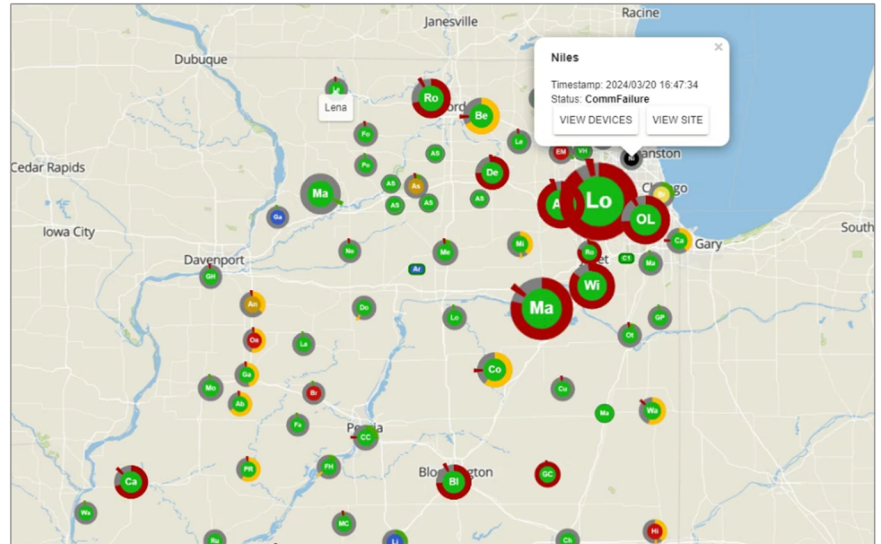

Figure 3: Site Window

Clicking on the additional link will pop up a secondary window (*Figure 4*) with more information about each device at that location; its description based on what's received from the Motorola UEM, the IP address and current alarm status. The square in the lower right-hand corner of the device window will allow a Radio System Manager to see a historic list of all events related to that device.
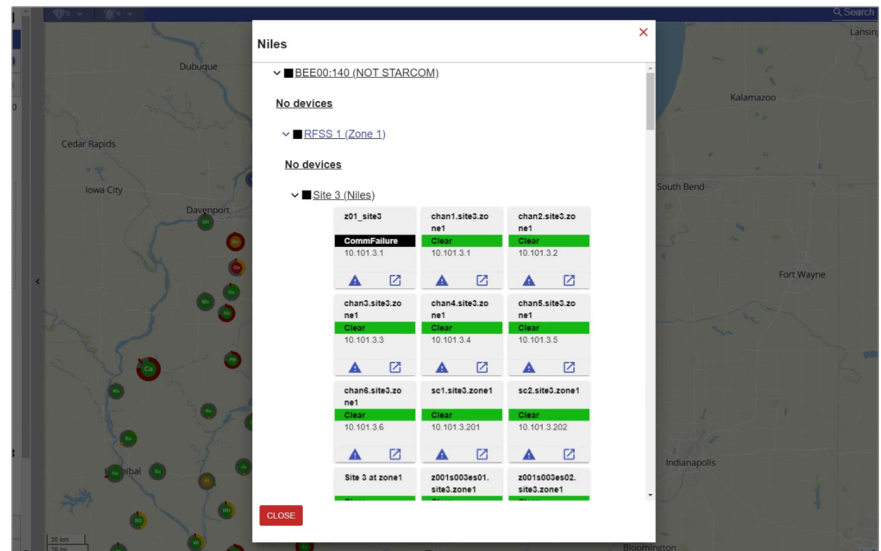
Figure 4: Device Window

Selecting the triangle icon on the lower left-hand corner provides a list of alarms for that device and includes the alarm state, the start and end time and date of the alarm, its location, device, and description as seen in *Figure 5*.
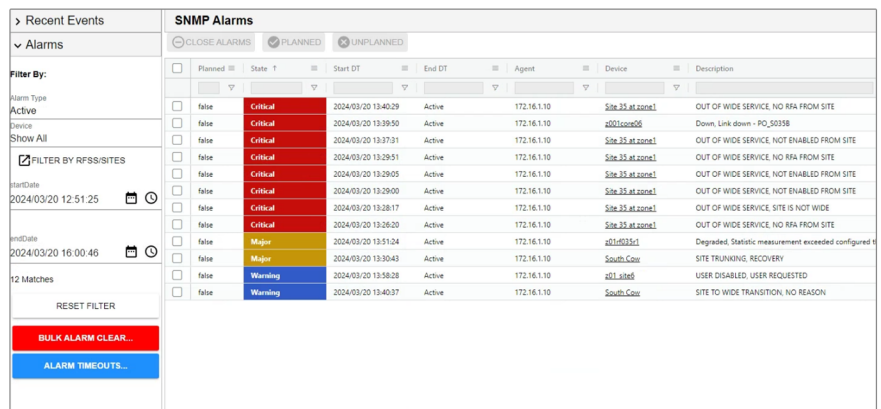

Figure 5: Device Alarms List

GENESIS SOFTWARE
SOLUTION BRIEF

GENWATCH UEM ENHANCEMENT

CONTACT GENESIS

📞 +1 877-548-0465 — US or Canada
 +1 903-787-7400 — International
✉ sales@genesisworld.com
🖥 genesisworld.com

INFORMATION CAN BE FILTERED FOR TRENDING AND REPORTING

With all system-wide events or alarms on one screen, GenWatch UEM allows Radio System Managers to filter the view for historical trending and more precise reporting. Filtering is done by type, device, alarm state, agent (ie, which Motorola UEM) and the time-stamp received by the Motorola UEM (*Figure 6*). Should an alarm generate as a result of a planned outage, selecting "Planned" from the list of records will make sure it is flagged as such within the report.

One of the most powerful tools in v is the reporting capabilities. As mentioned, Motorola UEM data is received by GenWatch through the NBI and archived packet by packet for as long as desired. Reports are generated in iVISTA with views specific to GenWatch UEM such as Site Availability (e.g., Failsoft and Site Trunking events) and Channel Availability (e.g., Illegal Carriers and Device Malfunctions).

Each report is filtered based on a set of parameters. Radio System Managers, or other authorized users, may select a time and date, as well as other resource considerations before running the report. Results are then viewed in a browser window or downloaded into Microsoft Excel for sorting, additional filtering and printing to a PDF. For recurring reports, iVISTA includes the ability to schedule reports to be run on a specified cadence.

Figure 6: System-Wide List of SNMP Alarms with Alarms Filter

GENWATCH® UEM HAS A ONE-WAY CONNECTION TO THE MOTOROLA UEM

When an alarm has been dealt with and that device is back up and running, it can be manually cleared from iVISTA within the SNMP Alarm screen (*Figure 6*). Alarms are able to be cleared from iVISTA automatically as well, but this is dependent upon GenWatch receiving the closure notification from the Motorola UEM. The GenWatch UEM has a one-way connection to the Motorola UEM through the NBI.

TRIGGER HELPS MAINTAIN AWARENESS OF SYSTEM PERFORMANCE

Using GenWatch UEM with the desktop application's Trigger Module allows Radio System Managers to create and set notifications on specific alarms and events by specifying the presence of an event, for example entering into Site Trunking mode, lack of an event or periodic evaluation. These real-time notifications may be sent in the form of an email (with the use of an Email Gateway), SNMP trap, external relay activation, or desktop alert.

GENWATCH UEM ENHANCEMENT

Genesis

EXTENDED SERVICE AGREEMENT OPTIONS THAT PROTECT YOUR INVESTMENT

Genesis provides a 1-year standard warranty on all Genesis software products which begins on the date of installation (i.e., the software goes live). Beyond the standard warranty period, Genesis offers two tiers of extended support; Essential Service Agreement (ESA) and Premium Lifecycle Agreement (Lifecycle).

At a high-level, ESA's cover all things software related, while Lifecycle includes support on software, as well as hardware and third-party software (eg. Microsoft® Windows). Each executed agreement has a minimum of one year, however, multi-year agreements are also available upon request.

Figure 7 lists the services provided with each agreement. A few of the services can be added ala carte to any ESA. For more detail, including contact information and the Genesis hardware replacement policy, please refer to the "Genesis Service Agreement Overview" document.

CONTACT GENESIS

📞 +1 877-548-0465 — US or Canada
+1 903-787-7400 — International

✉ sales@genesisworld.com

🖥 genesisworld.com

SERVICE PROVIDED	PREMIUM LIFECYCLE	ESSENTIAL SERVICE
Multi-year Pricing	✓	✓
Phone, Email and/or Remote In Assistance (During Regular Business Hours)	✓	✓
24/7 "On-Call" Availability for Complete Software Failure	✓	✓
Software Updates and Version Upgrades	✓	✓
Hardware Refreshes	✓	
Hardware Warranty Extensions	✓	
On-Site Services	✓	ALA CARTE
Third Party Software Replacement	✓	
Training Following Software Upgrades	✓	ALA CARTE
Quarterly Preventative Maintenance Checks (Remote Only)	✓	

Figure 7: Genesis Service Agreement Overview Matrix