

# CompressionWatcher™ - Compression Equipment Management Solution

The Compression Equipment Management Solution is an economical, turnkey system that captures operational data from compression equipment. This solution enables real-time remote and local monitoring, alerting of compressor/VRU functions, location, servicing, and status. Data can be used for analytics for predictive maintenance, decreasing downtime. If a SCADA system is already present, **CompressionWatcher™** will co-exist transparently.

**Track Operational Data-** Capture essential operational data every few minutes such as:

- ✓ GPS location of equipment, power, equipment, and flow on/off status.
- ✓ Discharge temperature, oil, flow rate and any desired reading.



**Local web dashboard for service staff at the unit:**

- ✓ See all current instrument readings and pull up the unit's history.
- ✓ Quickly complete local service report forms during each servicing.

**Local and Remote Command and Control for Field and Operations staff:**

- ✓ Local or remote shut down/start-up, change operating parameters.



**Alerts-** Instant alerts including Fault Code/Information sent by email, text and/or online.

- ✓ Equipment failure or power loss, including information when a manual shutdown occurred.
- ✓ Thermocouple changes outside of the defined range, flow rate changes, lost communications.





## The Prolora™ 3 Part System

### **Automation at the local Points of Presence (POPs):**

Prolora Automation Units (PAU) monitors and, if desired, controls operational activities at each field location or vehicle. The locally operating automation collects data, relays local and remote commands with the Internet, manages local equipment, supports service calls, and initiates alarms and alerts.

### **“Dashboard” to monitor and control the system:**

When on location, the Dashboard shows all the local operating information. When connected to the Internet, users can see the operational data for any unit in the system. This feature allows staff to monitor and control the system locally or remotely, see real-time status information, view service histories, and monitor active and historic alerts and alarms.

### **Data management system:**

This “in the cloud” server-based database system collects and stores all data. Regular (1-15 minute) “heartbeats” of all operational data from each PAU is automatically stored. All data is secure, auto-archived daily, and accessible from anywhere via the internet. Concurrently, if desired data can also be sent to your own data center. Personalized reports provide summaries, billing reconciliation, location specifics, analytics, morning reports, or any type of information generated based on the stored data.

## The Prolora Difference

Prolora's automation uses state-of-the-art next-generation SCADA “Internet of Things (IoT)” methodologies to deliver reliable, highly stable, fault-tolerant field operations without the limitations of conventional third and fourth generation SCADA-based automation implementations, including:

**Local Processing.** Unlike typical field automation, Prolora equipment implements robust local event handling and routine operations management.

**Decentralized Data Management.** Prolora uses a better approach to data management than traditional fourth generation SCADA-based programs. With mission-critical data coming from a mix of sensors, controllers, and local data structures (some of which may be at nearby locations), Prolora avoids the typical 1:1 data mapping using comprehensive data modeling and object-oriented programming techniques.

**Peer-to-Peer.** Typical field automation operates in a single-tasking, Master-Slave mode with the field units responding to remote commands using little local logic. Prolora's peer-to-peer approach is more stable and resilient to failure as each Prolora field unit operates independently and follows locally assigned rules and logic. The Automation units can, for example, decide to open and close valves and turn pumps on and off as needed without being remotely directed. Remote command and control can also change instructions or directly adjust settings and manage valves and pumps.

**Inherently Multi-Pathed.** Prolora's field units maintain dual-carrier connections to instantly and automatically re-route data communications to users and remote servers if a particular Carrier's network fails. Failover operates entirely transparent for field automation, cloud-based dashboards, and system users. Carrier management is included in monthly charges, so separate carrier accounts are not needed.

**Independent, Battery-Operated Design.** Typical automation often fails unexpectedly. Prolora's mission-critical parts operate on a steady, internal DC power source that does not fluctuate as nearby AC powered devices turn on and off. This innovative design utilizes the local AC or DC power source to maintain local batteries while the batteries, in turn, operate the electronics.

**Security.** Prolora's control programs cannot be directly accessed, either locally or from the Internet.