THERMON

GENESIS NETWORK

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The **Genesis Network** delivers full operational awareness and supervisory control over heat trace systems, with low total installed cost and maximum flexibility. Genesis Network connects all heat trace controllers via wireless mesh communications to the control room. In the control room, alarms and performance history are logged and displayed to operators, maintenance teams, and management via a user-friendly browser-based interface accessible from any PC or tablet.

The **Genesis Network** enables:

> **Increased up-time** resulting from site-wide visibility of all heat trace operating conditions and alarms

> **Optimized alarm settings** tuned to accurately flag outlier behavior and avoid nuisance alarms

> **Fewer maintenance hours** due to rapid diagnoses and troubleshooting of issues and sources of alarms

> **Streamlined maintenance and operations** resulting from the accurate and timely analysis and presentation of data relating to the heat trace system

> **Improved response** to upgrades, expansions, and maintenance activities and the related configuration changes

GENESIS MULTI-POINT CONTROLLER

The Genesis Multi-point Controller delivers advanced heat trace control with a modern and intuitive touch interface. Its elegant design gives operators ability to optimize settings with minimal training, see status of 72 circuits at a glance, and review stored heat trace isometric drawings via a pan and pinch-to-zoom approach familiar to any smart phone or tablet user.

GENESIS BRIDGE

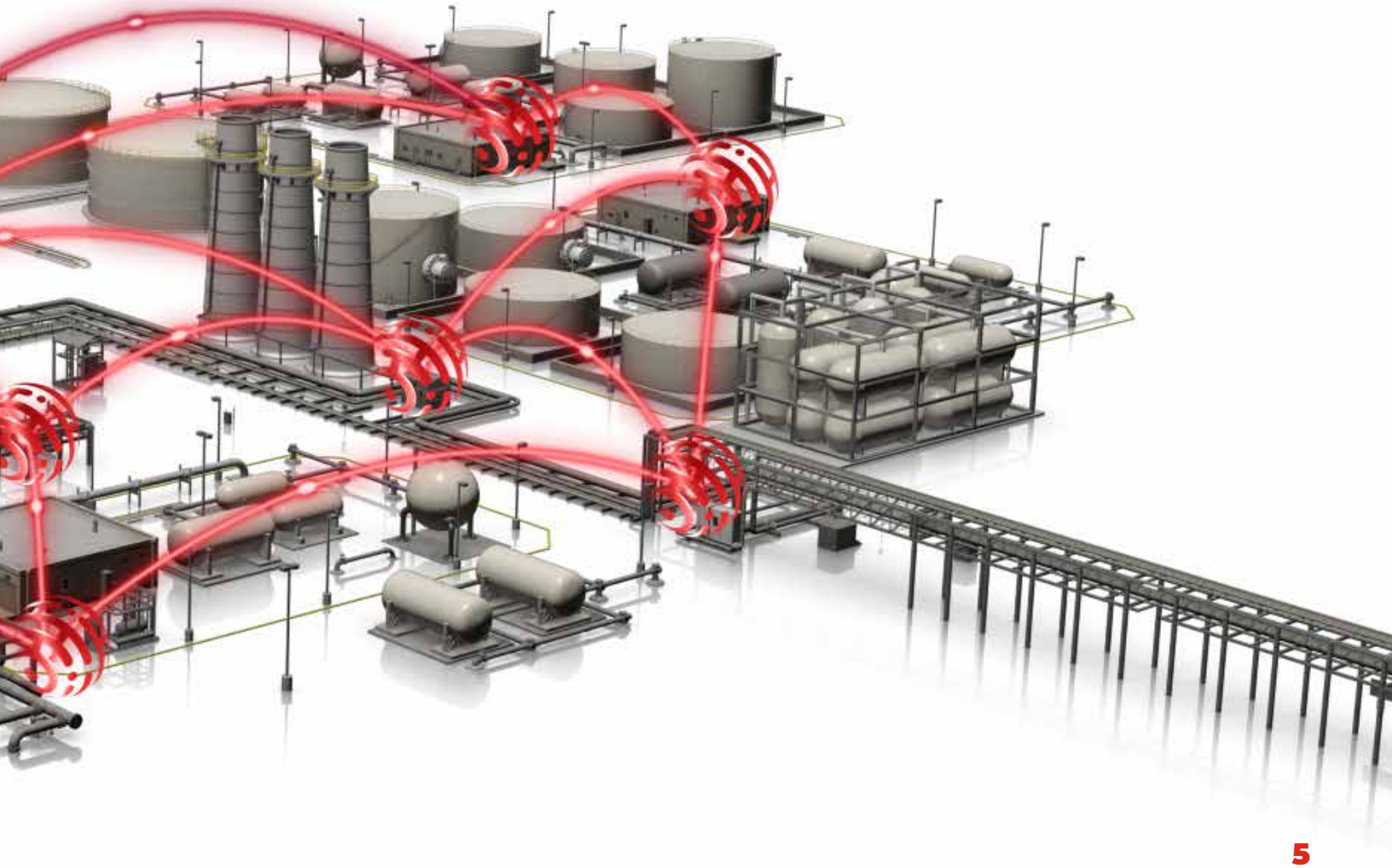
The Genesis Bridge links panels and controllers to form a wireless mesh network. Each bridge acts as a repeater for other nodes and dynamically adjust to ensure communication. The Genesis Bridge is a more cost effective, flexible, responsive and feature rich method for establishing communication when compared to traditional wired networks. Alternatively, bridges can communicate using a traditional wired Ethernet network.

GENESIS GATEWAY

The Genesis Gateway is the access point between the control room server and wireless mesh network in the field. It manages all communications to and from the mesh network. The Genesis Gateway securely controls the addition and removal of any node on the network. The gateway also manages the deployment and installation of software updates for all Genesis smart devices and controllers.

GENESIS SERVER

Genesis Server is industry-leading software running on a server in the control room. Genesis Server communicates with all heat trace panels and controllers in the facility, and displays and communicates alarm status and summaries. It collects performance history of the heating system including temperatures and heater current over time for analysis, reporting, and troubleshooting. Genesis Server pushes software updates to panels and controllers in the field when new features and value added improvements are released.



Wireless Communication: Reduces total cost of ownership by eliminating installation and maintenance of wiring, tray, and/or conduit.

Mesh Network: Maximizes uptime by providing multiple and redundant communication pathways that automatically adjust.

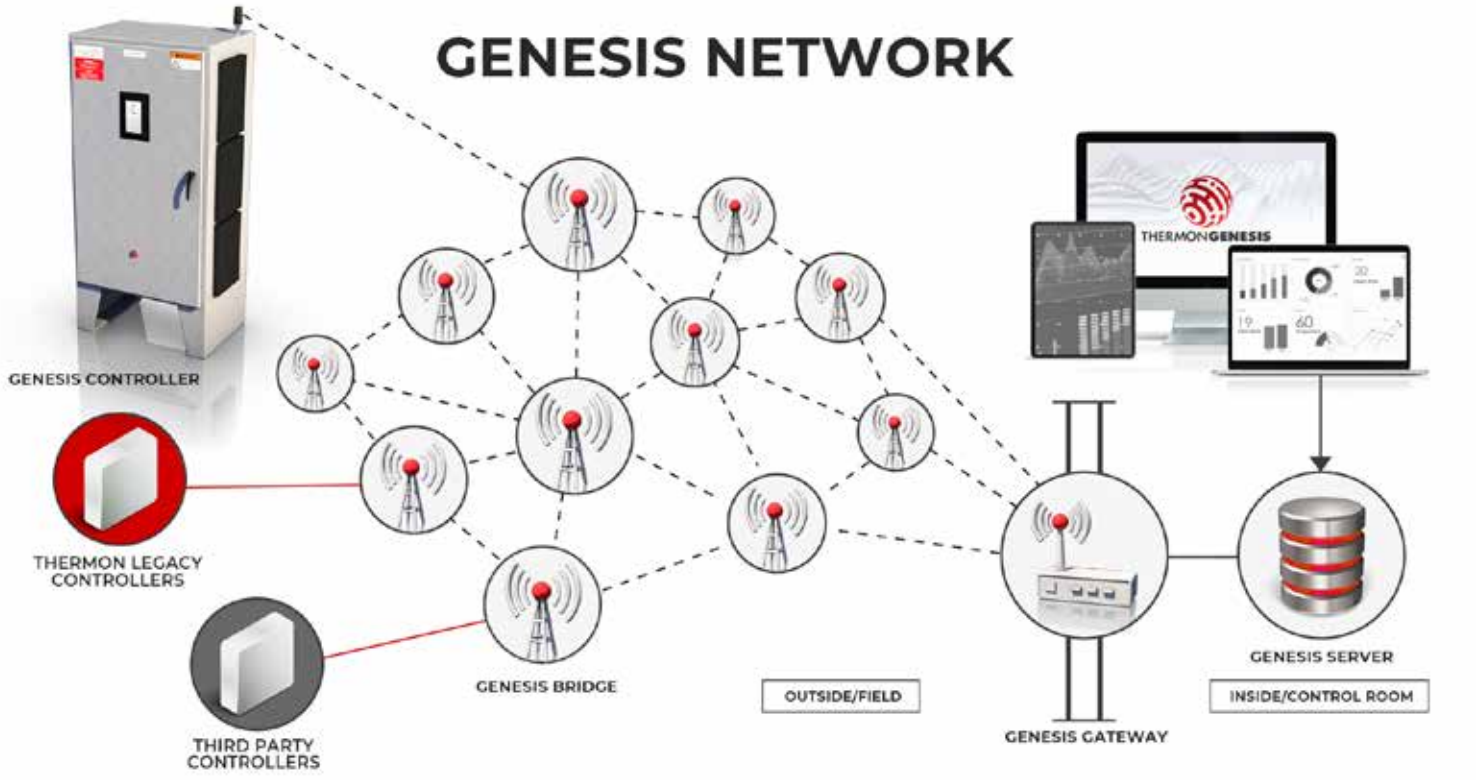
Scalable: Meets simple needs or supports the largest facilities and heat trace circuit counts. Up to 1024 nodes.

Real-Time: Superior response time when compared to a traditional Modbus network. Timely alarm reporting and tracking of temperature and current measurements in control room enables efficiency with troubleshooting issues.

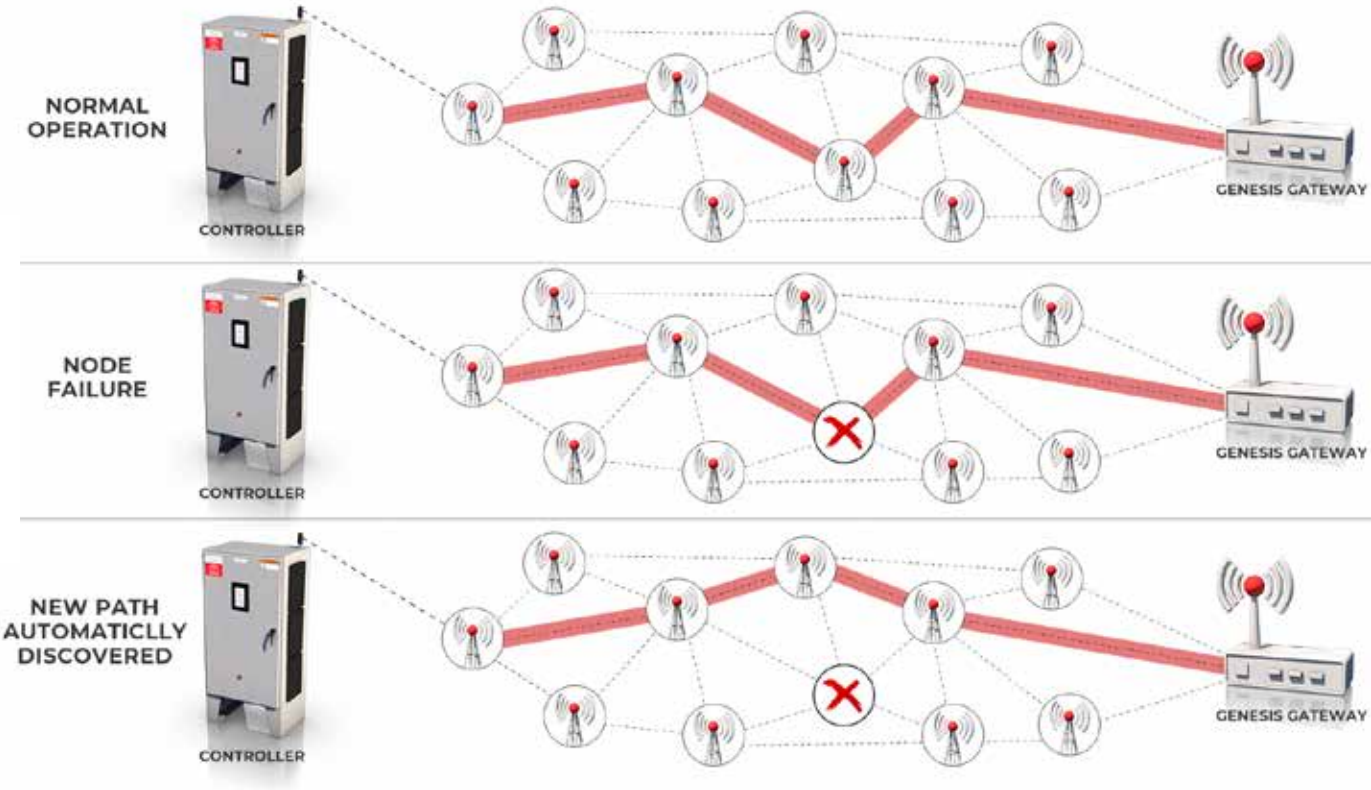
Software Updates: Using smart IIoT technology, easily deploy new software to Genesis Network devices and controllers in the facility and add features over time to realize greater value.

Browser Interface: Users can access the system from any browser (PC or tablet) on the facility network ensuring access from anywhere. Eliminates effort to keep client access points up to date.

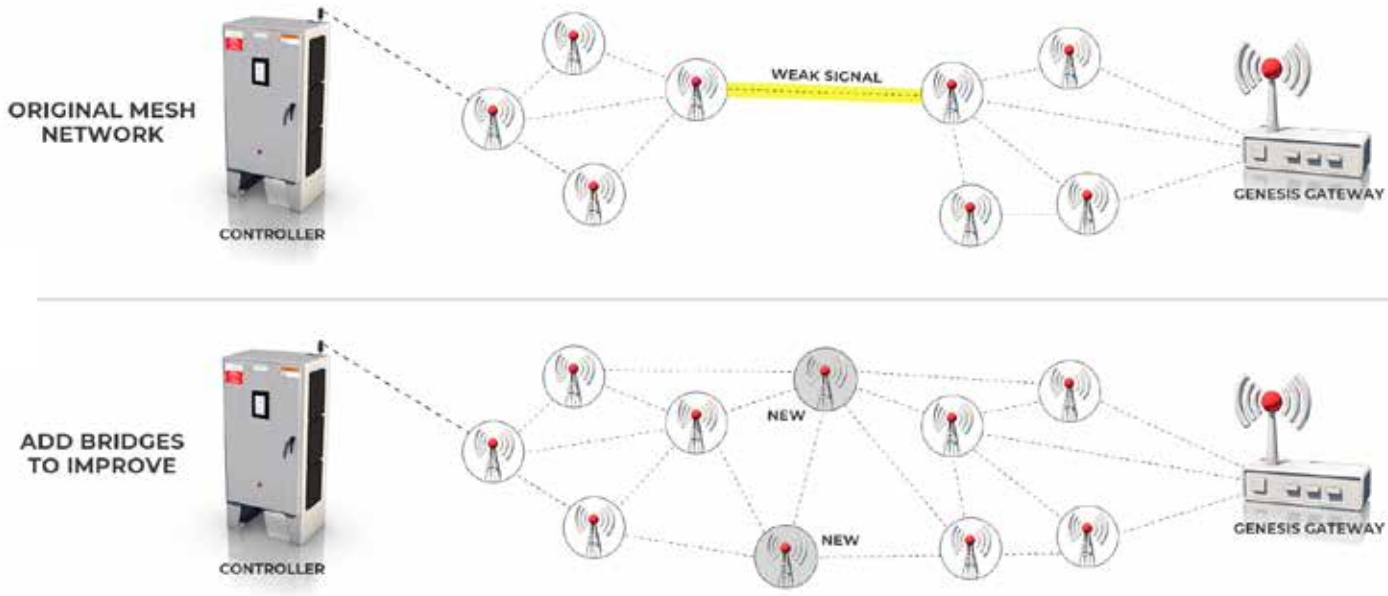
Communication Options: May be configured for either wireless (preferred) or wired communication or any combination of wired and wireless depending upon the needs of the site.



MULTI-PATH ENABLES SELF HEALING



BRIDGES ARE REPEATERS FOR IMPROVING MESH



The **Genesis Network** consists of a control room server, a gateway, and a collection of field deployed bridges/nodes that form a wireless mesh communications network. Alternatively, the network can be made via a traditional wired Ethernet network. The Genesis™ Network connects all heat trace panels and controllers to the control room and gives visibility of all assets from a single dashboard and user interface that can be accessed from any browser.

The **Genesis Network** delivers the following features and benefits:

> Full Operational Awareness and Control
- Site-wide visibility
- Optimized alarm settings
- Rapid diagnosis using historical data
- Data analysis and presentation

> Smart Internet-of-Things (IoT) Approach
- Simplified site-wide software upgrades
- Browser interface from PC or mobile tablet
- Single server to maintain
- Event driven for faster response than Modbus

> Wireless Advantages
- Avoid wire/tray/conduit costs
- Flexible when moves and changes are made
- Mesh network that self-heals for more robustness
- Real-time responsiveness to alarms and changes
- Scalable with simplicity for largest facilities

FOR ADDITIONAL INFORMATION:
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