

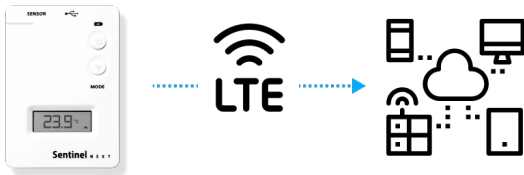
Remote Monitoring with WiFi Sentinel Next 1S

Uses your existing WiFi network to monitor across all your facilities. Automates monitoring of temperature, humidity, differential pressure, CO2 and more to meet compliance standards with 24/7 real-time continuous monitoring. Alerting system uses emails, text messages and APPs for notifications. The system meets 21 CFR 11 requirements, are ideal for monitoring of refrigerators, freezers and ultra low freezers



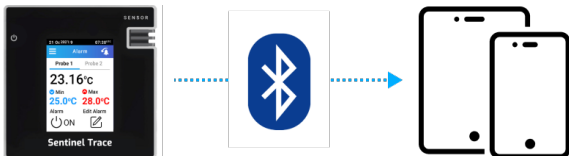
Remote Monitoring with LTE Sentinel Next 1S LTE (cell)

Uses the cell phone network to monitor across all your facilities thereby eliminating IT security concerns, network performance issues and support commitment from IT. Automates monitoring of temperature, humidity, differential pressure, CO2 and more to meet compliance standards with 24/7 real-time continuous monitoring. Alerting system uses emails, text messages and APPs for notifications. The system meets 21 CFR 11 requirements, are ideal for monitoring of refrigerators, freezers and ultra low freezers.



Datalogging with Bluetooth Sentinel Trace, IPM and Inspector

Datalogging thermometer that meets 21 CFR 11 requirements, are ideal for monitoring temperatures in refrigerators, freezers, water baths, heating blocks, and incubators.



**Communication +
Sensors +
Software +**



We develop and assemble the hardware, the firmware, the cloud dashboard delivering a seamless user friendly system.

7552 Central Parke Blvd. Mason, OH 45040

Tel: +1 513 204 5837

Fax: +1 732 879 0248

www.aginova.com



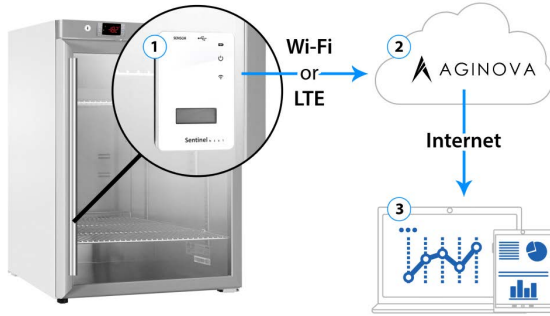
CATALOG

Remote Monitoring Solution

Designed for the scientific, business and technology needs of the Pharmaceutical, Blood Bank, Biotech, Hospitals, Pharmacy and Life Sciences industries.

The solution is 21 CFR Part 11 compliant.

+ Communication



1. Network

The sensor communicates using WiFi Protocols (IEEE 802.11b/g/n) OR the LTE cell phone network. A key feature of our WiFi communication is that it supports a myriad of encryption including WEP, WPA/WPA2, PEAP, EAPTLS.

Therefore, our sensors can easily operate in any corporate or enterprise network. On board data storage with the store-and-forward feature prevents any data loss in case of network problems. Use of WiFi or LTE network eliminates the need for any gateway device. The sensors can communicate directly to the Cloud.

2. Cloud

The IoT cloud platform is unique because it has an ingestion engine that supports virtually unlimited number of sensors across a distributed network over many locations.

3. Dashboard

From the cloud the sensor data is moved to a dashboard for data visualization, alerting and reporting. Alerting engine includes emails, text messages and phone call with escalations. Custom reporting features, for any particular domain, can be created on the dashboard. Another unique feature of the dashboard is to track annual sensor certifications and validation procedures. In addition the ability to visualize assets and its maintenance procedures is very useful. Custom workflows can be implemented.

+ Sensors

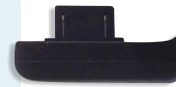
Temperature, Relative Humidity, Differential Pressure and many more

The sensors are modular in design with a digital interface for different types of sensor probes such as T, RH, CO₂, Differential pressure and more.

The sensor platform is modular which makes easy addition of sensors, including any off-the-shelf sensor with customization. Several diagnostic tools have been developed to measure the sensor health remotely allowing the solution to be implemented on a large scale.



Temperature Sensors



Relative Humidity Sensors



Differential Pressure Sensors



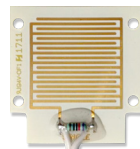
Temp. + Dry Contact Sensors



Large Range / Ambient CO₂ Sensors



Oxygen Sensors



Water (Leak) detection Sensors

and many more...

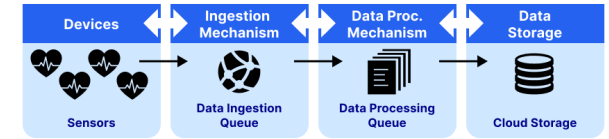
+ Software

Push notification alarms, Sensor signing, Graphs/Data, Sensor Health

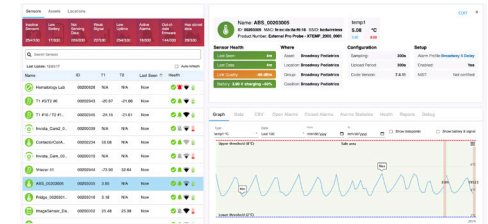
The software complies with 21 CFR Part 11. It meets GMP standards and is used by Hospitals, Clinics, Pharma and Research Institutions.

Cloud Services

MQTT communication, IoT Ingestion Engine, Data Storage, No limits to number of sensors



Sensors communicate to the cloud using MQTT via either using WiFi or LTE cell network. No data is lost. All sensor communications can be seen in the cloud for updating firmware, debugging and diagnostics purposes. The system can be scaled to 100,000+ sensors instantly by allocating more resources on the server. The diagram shows the data flow from the sensor to the cloud.



The dashboard sits on top of the Data storage system. It is designed to help the user set sensor parameters, visualize data through graphs and tables, aggregate reports for managers and manage alarms.

Features include:

User management, Sensor management, Alarm management, Graphs/Data (exporting), Sensor Diagnostics, Admin reports, Sensor Health, Sensor Signing, Manage NIST Certificates, Alarm Statistics, Custom Reports and Workflows



Sensor configuration Wizard is an APP to test your network to cloud connectivity, configure sensors in the field and perform advanced diagnostics in case of communication malfunction

Sentinel Next APP provides a quick view of the sensor reading, graph, health and status of the alarms. The alarms can also be acknowledged from the APP. In addition, it can be used to validate sensors in the field.