

Cold-Storage Temperature Monitoring

Hospitals' temperature management process is regulated by the Joint Commission and various other regulating bodies. Healthcare providers must maintain their accreditation by the Joint Commission and are subject to frequent audits.

■ AiRISTA's Unified Visibility Solution Technologies

Real Time Locating System (RTLS):

Radio Frequency Identification (RFID)

GPS Locating & Security Monitoring



■ Overview

Hospitals, clinical laboratories and blood banks are subject to rigorous accreditation processes by the Joint Commission, FDA, CAP, AABB and various other agencies. Increased scrutiny for adherence to strict compliance standards, necessity to ensure safety and enhance quality of care and the need to increase operational efficiencies has required healthcare providers to re-evaluate their existing manual processes for logging, monitoring and tracking environmental data.

Monitoring and logging the temperature, humidity, motion and other environmental conditions of refrigerators, freezers, coolers and other types of storage units has never been easier. Using advanced wireless network and sensor technologies, AiRISTA offers innovative, robust and cost-effective environmental condition monitoring solutions to health care providers.



Through the same Web-based user friendly console used to track and manage assets, patients and personnel, users are empowered to ensure storage units' integrity. Institutions are enabled to prevent the loss and expiration of sensitive products and storage contents and avoid impairment of their workflow due to the loss of inventory.

For those always looking to further this novel capability, AiRISTA can combine its Condition Monitoring Solutions with location tracking capabilities to monitor and pinpoint abnormal conditions of mobile storage equipment.

■ The Need

- Environmental condition sensitive contents including those of vaccines, tissues, blood, pharmaceutical products and patients' food are maintained in hospitals' refrigeration and other types of storage units. Deviations from strict environmental conditions such as "safe temperature ranges" can have severe consequences for the stored contents.



- Many healthcare providers rely on the nursing, lab and pharmacy staff to perform continuous logging and monitoring of environmental data for sensitive stored contents. These manual mechanisms are inherently unreliable, labor intensive, time consuming and inefficient.

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MONITRAC TS Temperature Monitoring



■ Key Features

Tag's Power Consumption

Tag variations support external power for continued operation or use rechargeable/replaceable batteries to provide up to several years of battery life depending on the frequency of reporting. Low-battery notification/alert ease the maintenance task.

Ultra Flexible Workflow Automation

Detection and recording of abnormal (deviations from acceptable parameter ranges) conditions of an asset are the starting point. Use a flexible workflow automation and business rule engine to automate various manual processes, notification dispatch and escalation. The business rules and policies can be setup independently for different departments.

Web-Based User Friendly Software

Web-based and friendly interface minimize users' training needs. Create watch-lists of assets to monitor quickly and painlessly. Easily search, locate and view the status of assets.

Advanced Dashboard & Reporting Functions

Meet various reporting needs for the management, administrative and care provider personnel. Use existing reports or modify and custom build new ones to include or exclude parameters and filters.

AiRISTA develops and delivers a wide range of turn-key solutions incorporating RFID, RTLS, GPS and related technologies that enables real-time management of mobile personnel, assets and resources to government and commercial clients. With our robust and comprehensive Track and Trace solutions, clients realize a reduction in resources, cost and errors while benefiting from increased efficiencies, productivity, safety and revenues.



913 Ridgebrook Road Suite 110
Sparks, MD 21152
Voice: 410 878 2700
Fax: 410 878 2561
E-mail: info@airista.com
www.airista.com

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■ How the Solution Works

- AiRISTA WiFi tags equipped with condition monitoring sensors are mounted in proper locations outside or inside of the storage units. Tags may be powered by external feeds or batteries.
- Sensors provide continuous readings of the environmental conditions at predetermined frequencies.
- Tags will utilize the existing WiFi infrastructure to transmit environmental condition data in real time for storing, processing and dispatch of abnormal condition notifications/alerts via email, SMS or pre-recorded voice messages.
- Optionally, with location monitoring enabled, tag data is transmitted via WiFi access points to the location engine. This data is used to determine the location of the tag and subsequently forwarded to the presentation layer for the display and view on a map.

■ Beneficiaries

- Nursing Staff - Are freed up from ongoing, time consuming and inherently error-prone manual monitoring and logging processes.
- Administrative Staff - Are freed up from the ongoing collection and filing of the log records for reporting and audits.
- Hospitals and Clinics - Gain visibility in real time on the conditions of critical assets, contained products and sensitive contents. Use historically collected condition data for reporting and compliance purposes.
- Patients - Care receivers' safety is better ensured and satisfaction increased.

■ Reporting

- Current and historical temperature data is stored permanently in the back end for current and future use.
- Reports on environmental conditions, anomalies and deviations may be generated for any number of monitored storage units with a start and end date in industry standard formats to meet compliance reporting and auditing requirements.
- Scheduled reports such as monthly log reports can be sent via email automatically.
- Exception Reports can also be sent via email automatically.