

Healthcare Technology Company Standardizes Environmental Monitoring to Ensure Uptime



A Vertiv Case Study



About the Company

This leading independent healthcare technology company works with physicians, dentists, hospitals, pharmacies, and laboratories across North America and in other areas of the world to improve the healthcare experience through end-to-end technology solutions.

Its products and services have helped facilitate billions of dollars in healthcare transactions and have enhanced and improved nearly a third of all patient health records in the United States.

Since 2011, the company has grown rapidly through a series of mergers and acquisitions, resulting in a distributed geographic footprint.

A forward-thinking organization that thrives on innovation and the availability of technology and data to serve its healthcare clients, the business has made optimizing and protecting its IT infrastructure a top priority.

Background

Monitoring and managing data center facilities has always been a priority for this leading independent healthcare technology company. A series of recent mergers and acquisitions have made the company part of a global organization with development, service, and data center locations in more than 30 states.

Based on the success of the Vertiv™ environmental sensors and monitoring platform initially implemented in two critical data centers in 2011, the organization has standardized on a proven monitoring and management solution that it has rolled out to more than 120 of its edge locations.

With the ability to monitor all sites, all the time, from 24x7 Network Operations Centers (NOCs), while also giving regional and local teams visibility, the standardized solution has helped the organization proactively identify potential problems, reduce risks, and ensure uptime all across its network.

Case Summary

Location: 126 distributed facilities nationwide

Critical Need: With its footprint expanding rapidly due to mergers and acquisitions, the healthcare technology provider needed a way to effectively keep tabs on the environmental conditions in numerous edge facilities, many of which lacked dedicated precision cooling solutions and most of which had no dedicated IT staff on site.

Vertiv Solutions: Vertiv created a standard specification for aggregated environmental monitoring by bundling environmental sensors with monitoring and management software. Ideal for implementing at small to medium-sized edge locations, the solution includes:

- Vertiv™ Geist™ Watchdog environmental monitors and sensors for temperature, humidity, and dewpoint
- Smoke detectors and remote door position sensors
- Vertiv™ Environet™ real-time data center monitoring software

Results:

- Gained remote visibility and control over environmental conditions across 126 distributed locations including small, medium, and main data center IT sites
- Reduced risk and prevented system disruptions through real-time multi-tiered alerting
- Lowered total cost of ownership with standardized configurations that created ordering, labor, and maintenance efficiencies
- Reduced the need for an on-site IT presence at multiple facilities
- Created peace of mind through a long-term relationship with trusted advisors

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Solution

Remote environmental monitoring and management helps prevent problems before they escalate

With mergers and acquisitions rapidly driving up the number of remote facilities in the healthcare technology organization's network, the director of IT and the facilities manager at the primary data center soon found themselves responsible for maintaining dozens of IT sites scattered across the country. The sites range from small network closets, telecom, and server rooms with one to two racks, to several much larger sites that house anywhere from 10 to 20 racks along with complex backup power infrastructure, including three-phase UPS systems and generators.

Given that many of these spaces are not ideally suited to maintaining sensitive servers and electronics, and that most rely exclusively on building HVAC to handle the heat output of the equipment, the IT and facilities leaders knew that proactively monitoring the environmental conditions within the spaces would be essential to protecting the equipment and ensuring system uptime. With no IT staff on site in many of the facilities, remote monitoring became the obvious and most cost-effective solution, enabling complete oversight while reducing the need for costly, time-consuming on-site visits.

Bundling hardware and software for a complete solution

The IT and facilities team already relied on Vertiv to provide monitoring and management for the organization's mission-critical data center facilities, and they turned to Vertiv to help roll out a solution across the organization's growing distributed network. Vertiv responded by creating a standardized bundle of monitoring hardware and software that can be implemented in the company's main data center sites, as well as its smaller and medium-sized IT spaces. The solution includes:

- Vertiv™ Geist™ Watchdog environmental monitors with on-board temperature, humidity and dew point sensors, one relay contact, and the capacity to add up to eight external sensors
- Smoke detector to safeguard against fire
- Remote door position sensor to add an additional layer of physical security to the space
- Vertiv™ Environet™ software for aggregating data from the sensors, visualizing the data, and providing real-time alerting and alarming

Real-time alerting at the first sign of trouble

With the monitoring and management solution, experts at remote 24x7 NOCs, as well as regional and local staff, can monitor conditions across one, many, or all facilities and drill into any alerts or alarms that may occur in the sites they are monitoring. IT and facilities staff can set thresholds for environmental conditions such as temperature and dewpoint.

When conditions in a room fall outside those thresholds, users receive real-time alerts with multi-tiered alarming based on the severity of the situation.

With proper notification of potential problem conditions, such as temperatures or humidity that are too high or smoke in the air, staff can take action and respond to the situation before it escalates, helping to prevent system disruption and costly downtime. For example, by monitoring temperature and moisture content shifts in the space, tracking patterns, and knowing immediately if a high or low threshold is exceeded, data center operators can adjust conditions before the temperature becomes unsafe or humidity leads to condensation that could damage IT equipment. And they can proactively work to maintain environmental conditions that help ensure optimal system performance.

Streamlining and simplifying the oversight process

By creating a standardized solution bundle, Vertiv is helping the healthcare technology provider save time and money in its remote monitoring efforts with a design that can easily be duplicated across all its IT sites.

Each facility can order the bundle from the reseller of its choice and work with local partners for implementation, with Vertiv experts providing remote phone support as needed. The standard solution also simplifies training, maintenance, and troubleshooting, further reducing the total cost of ownership for the solution.

Creating peace of mind

As a forward-thinking organization committed to preventing downtime across its network, the healthcare technology provider needed a reliable yet cost-effective solution it could easily scale across its growing footprint.

As a trusted partner for more than a decade, Vertiv has provided expertise to guide the organization's IT infrastructure strategy and to help it continuously maintain system availability in the most cost-effective and efficient manner.

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