

# St. Joseph's Hospital Health Center



## Customer

St. Joseph's Hospital Health Center

## Industry

Healthcare

## Challenges

- Compliance documentation
- Patient contact time
- Cost-effective temperature monitoring
- Timely response to out-of-temperature-range events
- Corrective action reports
- Escalation procedures to aid quality of care

## Solution

- Network Design & Implementation: NEC Professional Services
- RFID Solution: AeroScout Wi-Fi Temperature-Monitoring
- Wireless Network: Cisco Unified Wireless Network
- Managed Service & Support: NEC Secure

## Results

- Improved regulatory compliance
- Increased safety
- Enhanced quality of patient care
- Improved productivity

Hospitals are required to adhere to stringent temperature-monitoring standards for the hundreds of refrigerators and freezers they use to store life-saving medical resources like blood, pharmaceuticals, organs, vaccines, tissue samples and food. Healthcare organizations can leverage communications technology to automate the temperature-monitoring process, reduce human error and better meet compliance requirements.

St. Joseph's Hospital Health Center is a 431-bed facility in Syracuse. The hospital provides comprehensive healthcare to residents within 16 counties throughout central New York. St. Joseph's, with design, integration and management services from NEC, implemented a wireless temperature-monitoring solution that improves regulatory compliance, staff productivity, patient safety and quality of care.

## Challenges

In early 2008, The Joint Commission listed temperature monitoring among its top ten concerns. Chuck Fennell, St. Joseph's CIO, was already engaged in finding a more efficient way to log temperatures and detect and report out-of-range events. "Our approach has always been to go above and beyond The Joint Commission's accreditation compliance requests for the sake of patient safety," says Fennell. "That certainly includes monitoring temperature-sensitive pharmaceuticals, tissues and the like."

Traditionally, the hospital's nurses, pharmacy and laboratory staff was assigned the task of monitoring and logging refrigerator and freezer temperatures multiple times a day; and, alerting staff to any out-of-range events. This, however, was a time-consuming, labor-intense process. St. Joseph's challenge was to find a practical, cost-effective means of monitoring temperatures while maintaining strict compliance with regulatory requirements.

## Solution

NEC designed, built and installed St. Joseph's voice and data infrastructure. NEC also installed the hospital's wireless LAN data network. Fennel leveraged St. Joseph's long-term relationship with NEC to find a viable temperature-monitoring solution. "NEC is a great partner to work with," says Fennell. "They are very familiar with our wired and wireless infrastructure and bring an excellent value-add to all our IT solutions."

St. Joseph's NEC account team suggested a temperature-monitoring solution from AeroScout that would allow the hospital to leverage its existing wireless network. The solution includes AeroScout's Wi-Fi-based, temperature-monitoring RFID tags that are placed in each of the hospital's refrigerators and freezers. Every few minutes, the tags send temperature readings over the hospital's Wi-Fi network to AeroScout's MobileView software, an event dashboard that displays temperature-range reports.

Fennell found the solution offers the simplest, most cost-efficient solution for temperature monitoring in part because it leverages his existing wireless network and investment. "It requires no hard wires and no additional network infrastructure—a big plus," he says.

The MobileView application also includes corrective-action logging. If the temperature of a refrigeration unit exceeds or drops below a pre-set threshold, an alert is triggered. MobileView then sends a message to the responsible party. If the condition persists, MobileView includes escalation rules that alert other employees in a specific order until the situation is corrected.

"MobileView is completely rules-based," adds Fennell. "We get to determine who they system contacts on what device and in what order." The AeroScout solution presents a zoned floor plan in a graphical format, making it extremely easy to find the specific refrigerator or freezer in question. "The logical icons only add to the simplicity of using the system," adds Fennell.

The hospital benefits by relieving highly skilled workers of an important but lesser-skilled task so they can spend more time attending to patient needs.

## Results

The AeroScout solution enables St. Joseph's to generate additional value from its IT infrastructure by assisting with accreditation compliance. "When regulatory bodies like The Joint Commission ask us for our temperature monitoring documentation, we simply go to AeroScout's MobileView software and print out the temperature logs and corrective actions, which are greatly appreciated by the compliance investigators," says Fennell. "And because The Joint Commission scores rise based on the completeness and accuracy of compliance information, I expect we may see the results of our improved temperature monitoring documentation."

The AeroScout solution has also increased the amount of time hospital staff spends with patients. "Our nurses, laboratory and pharmacy staffs are now freed up to do what they do best," says Fennell. "That is providing the highest quality healthcare to patients."

St. Joseph's wireless infrastructure lays the foundation for additional value-add technologies. "We can use the same Wi-Fi network and software infrastructure for additional visibility applications, such as location tracking and asset management," says Fennell. "We have nearly 6,000 appliances on our campus that we could potentially monitor with AeroScout's solution. Now that we have made the initial investment in wireless infrastructure and MobileView, it is easy to make a very convincing business case for layering location tracking on top of it."

St. Joseph's technology platform allows the hospital to continually accommodate its evolving communications needs now and in the future.

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