Medical Facility Deploys Mobile Automation

LifeConnections Health Center improves processes, cost savings, and patient care with Cisco Context-Aware Solution.

Business Challenge

Founded in 2008, the LifeConnections Health Center is an onsite medical facility for Cisco employees and their families. Offering a new model that integrates holistic care with advanced technology, the center has become a national showcase for next-generation healthcare centers.

Deploying the Cisco Unified Wireless Network at its inception, LifeConnections created an efficient mobile environment for patients and staff. The center had implemented a wide range of mobility services, including wireless patient check-in, Cerner electronic medical records, and e-prescribing. But temperature monitoring and asset tracking and management remained manual processes. “Our nurses had to keep paper logs of our refrigerator temperatures, checking them twice daily to make sure vaccines and lab samples preserved their efficacy,” says David Lees, Cerner clinic manager. “It was also challenging for us to keep track of our medical devices and equipment.”

Solution and Results

LifeConnections chose to deploy the Cisco Context-Aware Solution with the AeroScout Real-Time Location System tracking solution. “With this solution, we were able to easily add the temperature-monitoring and asset-tracking capabilities we needed into our existing Cisco Unified Wireless Network,” says Uma Desiraju, IT manager. “Leveraging our wireless infrastructure for these new services is enabling us to achieve a nine-month ROI.”

Today, the LifeConnections staff are able to monitor both refrigerator and ambient temperatures from wherever they are. Wi-Fi-based temperature tags, placed inside of the center’s five medical refrigerators, as well as in various rooms throughout the facility, send readings to the Context-Aware Solution every five minutes. When a temperature is out of range, an alert is sent via text or email to the appropriate staff member’s Cisco Wireless IP phone, enabling immediate problem resolution.

As a result of deploying the Cisco-Context Aware Solution, the center is now able to monitor temperatures 24 hours a day, helping ensure vaccines and samples are never at risk. “By automating temperature monitoring, we’ve already prevented the loss of $15,000 worth of vaccines, eliminated the possibility of human error, and surpassed compliance guidelines,” says Lees. “Our estimated savings per year is over $140,000, including $106,000 in vaccine replacement costs. We’ve also saved $35,000 in nurses’ time, increasing our focus on patient care.”

By tracking medical devices, the center can prevent the loss of expensive equipment while further improving caregiver efficiency. The Context-Aware Solution automatically tracks all wireless devices, including laptops, eClipboards, and wireless IP phones. Wi-Fi-based RFID tags make it possible to track other medical equipment, such as electrocardiogram (EKG) machines, crash carts, and wheelchairs. Using AeroScout MobileView on wireless IP phones, staff members can search for assets and receive alerts if equipment is moved outside of particular zones. “Quickly locating a device, like an AED [Automatic External Defibrillator], during an emergency can mean the difference between life and death,” says Lees.

“The Cisco Context-Aware Solution is one more way that we use Cisco Borderless Networks to offer the highest quality healthcare. Providing anytime, anywhere access to critical data, it has improved our clinic’s efficiency, cost savings, and patient care.”

— David Lees, clinic manager

For more information on the Cisco Unified Wireless Network and 802.11n technology, visit: http://www.cisco.com/go/wireless.

To find out more about the LifeConnections Health Center, visit: http://www.cisco.com/web/lchc/index.html.


Business Impact

Benefits delivered by the Cisco® Unified Wireless Network include:

- Saves approximately US$140,000 per year in failure prevention
- Prevents loss of expensive medical equipment
- Increased efficiency and eliminated human error
- Improved drug efficacy, compliance, and patient care

Customer Name: LifeConnections Health Center
Industry: Healthcare
Location: San Jose, CA
Organization Size: 30