



## Real-Time Asset and Temperature Monitoring Drives Operational Efficiencies at Seven Veterans Health Administration Hospitals

### Challenge

Serving over 8.5 million United States veterans and their families, the Veteran's Health Administration (VHA) leverages innovative technology programs to efficiently deliver effective care to those who need it the most. In 2008, the VHA required a system-wide Real-Time Location System (RTLS) at VISN-10, an Ohio region health site with five hospitals and seven clinics. The VHA's IT management team wanted to adopt RTLS tags and software in order to give hospital managers centralized visibility into asset locations in order to improve coordination, communications and collaboration between caregivers and other staff. Real-time location technology was sought as an alternative to passive location and RFID technologies because of the value placed on real-time location updates which enable immediate visibility into day-to-day operations which can be shared across facilities.

### Solution

The five-year long VISN-10 RTLS project included five hospitals and two clinics covering Ohio, and consisted of 10,000 Ekahau active radio frequency identification (RFID) asset tracking tags outfitted for medical equipment and 750 RFID temperature sensors used to determine and report temperatures of refrigerator units storing blood, medications and tissues. Installed by the VetFed and Shipcom Wireless Inc. consortium, Ekahau RTLS operates over the facilities' existing Cisco Wi-Fi network, avoiding the need for dedicated, cabled network infrastructure or non-standards based technologies. Ekahau RTLS is fully integrated with the Shipcom Catamaran unified platform supporting stable and scalable mobility, barcode, RFID, GPS, GPRS, and RTLS architectures and Ekahau RTLS is integrated with Cisco's Mobility Services (MSE), which streamlines Wi-Fi-based RTLS adoption in large scale, multi-site deployments. The Ekahau RTLS installation at VISN-10 is also designed for High Availability (HA), to ensure back-ups and failovers in order to maintain vital location and temperature data during emergencies.

## Results with Ekahau

Ekahau's active RFID tags allow caregivers across hospital campuses to log-in and locate vital equipment on real-time, web-based maps. In addition, staff members receive proactive alerts if a piece of medical equipment nears exits or other restricted zones. By having real-time, mapped visibility into equipment locations, biomedical engineers can ascertain equipment utilization rates, right-size ordering and rentals and optimize maintenance. Caregivers also save time when processing and treating patients who are dependent on these devices. Lastly, VHA hospitals can prevent the accidental loss or misplacement of thousands of dollars in inventory across seven separate medical facilities.

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-Al Giambone, CEO, VetFed and Rajeev Varshneya, EVP, Shipcom

In addition, Ekahau's temperature sensors ensure the safety and integrity of blood, tissue, medications and ensure compliance the Joint Commission (JC) documentation requirements. The Wi-Fi-based Ekahau real-time temperature monitoring solution is completely wireless and records and reports temperatures over time. Ekahau sensors also send proactive alarms to pagers, email addresses and the Ekahau Mobile Vision™ (EMV) iOS application if a refrigerator exceeds software-programmed temperature thresholds, in order to prevent loss and spoilage.

Ekahau RTLS was selected by the VHA because of its ability to deliver room-level accuracy, using the existing wireless infrastructure and the scalability of the solution which integrates with Cisco's MSE. VetFed's CEO Al Giambone and Shipcom's EVP Rajeev Varshneya note, "We selected Ekahau RTLS for VISN-10 because it's completely wire-free, operating over the existing Cisco Wireless LAN across multiple facilities and offers a variety of tags combined with a Location Engine that delivers the VA's required accuracy."



Ekahau RFID temperature sensors are used to determine and report temperatures of refrigerator units storing blood, medications and tissues.

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