

The Dutch health-care provider is employing Wi-Fi-based active tags to track the locations of infusion pumps, and eventually EKG machines, in its surgery recovery and orthopedics wards.

By Beth Bacheldor

Dec. 12, 2007—The Netherlands' [Tergooi Hospital](#) is using a Wi-Fi-based real-time location system (RTLS) to track infusion pumps throughout its surgery recovery and orthopedics wards, as well as in a central storage room. The hospital, located in Blaricum, a city in the North Holland province, has deployed about 50 asset tags to date. But once the implementation is complete—which is expected to occur sometime in March—Tergooi anticipates using about 1,000 tags to track the pumps, as well as electrocardiograph (EKG) machines, according to Konrad Konarski, director of alliances at Montreal-based RFID systems integrator and solutions provider [Ship2Save](#).

Ship2Save installed the system, which leverages [AeroScout](#) Wi-Fi-based 2.4 GHz battery-powered RFID asset tags, along with exciters to activate the tags, causing them to transmit their identification numbers. It also includes the AeroScout Engine, which calculates tag locations by processing data from the tags and various Wi-Fi access points. Konarski says Tergooi's RTLS employs nine Wi-Fi access points, which the hospital had already installed as part of its Wi-Fi-based network, and eight exciters situated within the two wards and storage room.

The hospital had been utilizing bar-coded labels to track the pumps, but the system was static because the labels were scanned only at the moment the pumps were checked out or returned. Once checked out, the pumps were often moved from ward to ward instead of being returned to the storage room. "Pumps can accumulate in certain wards," Konarski says. "If there is an influx of patients, there might not be any in inventory [in the storage room], so someone has to go and find the pumps."

Now, nurses and other staff members can access software to pull up a graphical representation of each ward and the storage room, to see where the pumps are located. In addition, employees can press a button on a tag to indicate whether the pump is in use. That information is captured by the RTLS and reflected in the software, so a nurse can see on the map not only where a pump is located, but also if it is available.

The deployment will be followed closely by Peter Wijntjes, chairman of Facility Management Netherlands, a nonprofit organization that drives process and technology adoption of maintenance and support activities for Dutch companies, and by Linda Castro, a doctoral candidate at the [École Polytechnique de Montréal](#). The two are studying this deployment to better understand how intelligent products can help organizations develop more efficient asset-management activities.