

The New Orleans hospital is installing a system to help it locate and maintain nearly 1,000 medical devices.

By Beth Bacheldor

Feb. 28, 2007—Amid the reconstruction of New Orleans, one of the city's hospitals is installing an RFID-based real-time locating system (RTLS) to help it track, locate and maintain nearly 1,000 medical devices, including infusion pumps, wheelchairs and beds.

[West Jefferson Medical Center](#), located in Marrero on the West Bank of Jefferson Parish in New Orleans, is working with [PanGo](#) to install PanGo's PanOS Platform middleware, the PanGo Locator asset-tracking software, and the newest version of PanGo's 2.4 GHz active RFID tags. Late last month, PanGo unveiled the new tags, which, like the previous models, comply with the 802.11b and 802.11g Wi-Fi standards (see [Cisco, AeroScout Team Up on RTLS](#); [PanGo Unveils Next-Gen Tag](#)).

PanOS Platform middleware aggregates the location data culled from the RFID tags and the hospital's Wi-Fi network access points and passes that information onto the PanGo Locator asset-tracking software, which the hospital can access to get real-time visibility of assets, real-time alerts and real-time analysis about the location and status of tagged assets. West Jefferson's PanGo RTLS will ride on top of its recently upgraded [Cisco](#) wireless network, which utilizes the Cisco Lightweight Access Point Protocol (LWAPP). The Cisco LWAPP Network is a managed RF environment, or controller-based, which means all access points act as dumb devices or antennas and the network's intelligence is in a central piece of hardware known as a controller, explains Mike Braatz, VP of marketing at PanGo. The Cisco LWAPP Network includes Wi-Fi access points, a controller that runs the company's Wireless Control System software and interface, and the Cisco 2710 Location appliance, which gathers all the wireless signals from the access points and triangulates the signals to determine location.

At the behest of its biomedical engineering and sterilization teams, which are responsible for maintaining the medical equipment, West Jefferson contacted PanGo in mid-2006 to learn more about the vendor's RTLS technology. "One of the reasons why West Jefferson was attracted to PanGo is that it integrates and works with the Cisco wireless network infrastructure," Braatz says. At the time, the hospital wanted to upgrade its legacy wireless network, which did not completely cover the 540,000-square-foot, 451-room facility. Key to the wireless infrastructure upgrade was the addition of a RTLS, Braatz says. "The bottom line—the biomedical engineering team was driving the need for the system, and their whole goal was to make their business processes more efficient, spend less time looking for devices and spend more time on their two main tasks—maintenance and repair," Braatz says.

The combination of PanGo's RTLS and Cisco's LWAPP Network will give West Jefferson employees the ability to pinpoint a device within a 15-foot radius 50 percent of the time and within a 30-foot radius 90 percent of time.

The hospital is currently deploying PanGo's RTLS, configuring the wireless network and software and attaching the tags to assets. It is expected to be operational by the end of March. West Jefferson was particularly interested in PanGo's new, third-generation RFID tag, which features a smaller form factor and extended battery life of more than five years. "The battery life was important to them," Braatz says, adding that the hospital can align its biomedical device maintenance schedules with battery replacements for tags.

Although the RTLS isn't in use yet, Braatz says it has already saved the hospital money. "They had just made the purchase of smart infusion pumps that include Wi-Fi capabilities, and the hospital told us that they reduced their spend on the pumps by a third, because they knew they were going to have the ability to track them," he says. Because the hospital will be able to use the RTLS to locate them, it won't need to buy extra pumps as a reserve just in case it can't find one. "When you have a higher utilization of the assets you have on hand, you don't have to keep a lot of buffer around." The pumps have built-in Wi-Fi technology, so they can be located via the Cisco LWAPP network. The PanGo Locator software aggregates location data from the Cisco access points, with which the smart pumps will communicate. The hospital is attaching PanGo RFID tags to some of the older infusion pumps they have, which don't have built-in Wi-Fi technology.

Though the RTLS will be used only by the biomedical engineering and sterilization teams, Braatz says the hospital hopes to expand the tracking system. Though no time frame has been established, West Jefferson wants to increase the types of users that can access the system, and integrate it with the hospital's patient records, asset management and workflow management software. In addition, the hospital may add patient and staff tracking.