

Cisco, PanGo Unveil Tracking System

The companies have released a system that tracks the location of Wi-Fi-enabled devices and any asset bearing a Wi-Fi-based RFID tag.

By Bennett Voyles

May 12, 2005—[Cisco Systems](#) and [PanGo Networks](#) have announced an integrated asset-tracking system that operates over a standard 802.11 Wi-Fi network.

PanGo Networks, a Framingham, Mass., a technology firm specializing in asset location software, is now jointly marketing the PanGo Locator, its Wi-Fi-based tracking software, with the San Jose routing giant's 2700 Series Wireless Location Appliance as a single, integrated solution. The solution, whose components are still separately owned by their respective companies, makes it possible to track the location of Wi-Fi-enabled laptops and PDAs, and any asset bearing a Wi-Fi-based asset-location tag.

Executives at the two companies say that the new integrated system will make it possible for businesses and other organizations to launch an asset-tracking system using only an 802.11 wireless network. In a press release, PanGo executives noted that they were making the announcement at the same time as Cisco had announced the general availability of its 2700 Series appliance. The system lists for \$14,995 and is scheduled to ship in June, according to Cisco.

The Cisco appliance, which integrates directly into an existing wireless infrastructure, uses the same access points that convey wireless data traffic between Wi-Fi-enabled laptops and PDAs and the wireless LAN controller. The access points serve as location readers for Wi-Fi-enabled devices and Wi-Fi tags. The access points gather information on the relative strength of the signals received, relay the information to a Cisco Wireless LAN controller, which then aggregates the signal-strength information and sends it to the appliance, where the data is interpreted, according to the company.

Development of PanGo's part of the system began several years ago. While PanGo originally marketed solutions to push local content to laptops and PDAs, the firm began to adapt its software for an asset tracking application about two and a half years ago, according to Michael Campbell, PanGo's executive vice president for business development.

Campbell says its engineers stumbled onto the idea after a New York hotel's managers asked them for a solution to help track its wheeled room service tables. First, engineers tried Velcroing a Wi-Fi enabled iPaq handheld computer to the kind of table hotel staff kept misplacing and found that the system they'd designed to push local wireless content also worked well as a location tracker. When their makeshift system worked, executives decided the potential was large enough to merit developing a new product.

One of the first steps PanGo took was to design a tag that transmits using the 802.11 standard wireless communication protocols. PanGo's first-generation of tags are fairly bulky (2 inches long, 1.5 inches wide and 0.8 inches thick), in part because they run on AAA batteries. Campbell says, however, that the next generation of tags now in development and scheduled for release at the end of the summer will be 50 percent smaller.

The system's active tags can be set in a variety of ways. A tag can be set to transmit a short message at regular intervals "to let you know it's alive," Campbell says. It can also advise the software when the asset it monitors is moving, thanks to a motion-sensing feature of the active tag. A technician, for instance, might set a tag on a wheelchair to report its location every 30 or 60 seconds while it was in motion, Campbell says. However, he notes that the system can work with tags from other manufacturers that also comply with 802.11 standards.

The PanGo Locator is divided into an asset-tracking module, a module that can generate lists of assets by location, and a mapping feature. Campbell says the system can track between 2,000 and 4,000 assets.

It was the mapping feature that most attracted Cisco to PanGo, according to Pradeep Gandhi, Cisco's business development manager for the product. While Cisco's 2700 Series Wireless Location Appliance could already report the locations of Wi-Fi laptops and other Wi-Fi-enabled devices in terms of X and Y coordinates, PanGo's mapping interface offered a broader and user-friendlier solution.

Cisco and PanGo are looking at hospitals as their first target market. Tracking equipment is a major challenge for hospitals, Campbell says. Since machines and devices are moved all over the facility, simply finding a given item can often be a time-consuming activity. For example, Campbell says one doctor joked to him that it takes eight hours to perform maintenance on an infusion pump: "seven hours to find it, one hour to do it."

Lost equipment can also add to costs in other ways as well. For example, according to Campbell, hospitals often end up forced to extend leases on equipment technicians can't locate. With the new system, he says, the hospital will be able to generate a list of where a particular category of equipment is in the hospital.

One of the first users of the system is likely to be Lee Memorial in Ft. Myers, Fla., which is in advanced discussions with Cisco and PanGo about setting up a pilot project.

"Having such a tracking tool would not only help identify those situations where the equipment was being stored and not in use but it would also give greater comfort to caregivers, in that they will know they can readily locate clinical equipment when needed," says Lee Memorial CIO Mike Smith.

Beyond healthcare, Gandhi says, Cisco hopes to market the product to warehouses, offices and data centers. Gandhi seems particularly enthusiastic about data centers. He says that in a huge data center, finding a particular server can sometimes be a tremendous challenge.

Copyright ©2005 RFID Journal, Inc. All Rights Reserved