

Wells Fargo Banks on RFID

At several of its locations, the financial services company is using EPC Gen 2 tags for a laptop tracking system, and has attached the tags to thousands of servers and other IT assets.

By Claire Swedberg

Nov. 19, 2008—Tracking thousands of assets in a typical banking data center, and ensuring that laptop computers leaving a building are authorized to do so—and are with the properly authorized users—is a cumbersome task for bank security officers. But Wells Fargo is employing radio frequency identification to solve that inefficiency in both cases.

Wells Fargo has joined a number of other banks looking to RFID to speed up that process, and to ultimately provide better visibility into their IT assets, deterring theft as well as reducing the hours employees otherwise spend conducting inventory (see Bank of America Deploys RFID at Data Centers). Wells Fargo is deploying an RFID asset-tracking system at its five primary data centers nationwide, in addition to using an RFID-based tracking system for laptop computers that leave several of its facilities. According to the company's senior VP, Mike Russo, these deployments are yet another example of how RFID should become a standard technology adopted by IT hardware suppliers to the financial market.

In late 2006, Wells Fargo first began evaluating RFID technology and assessing how it could be utilized to maintain control of its assets. The company started with a pilot at its data center in Roseville, Calif., tracking laptops coming out of that facility.

Employees and contractors entering and leaving the building often carry laptop computers that, in many cases, are the property of Wells Fargo but are assigned to a specific person. To track the laptops and ensure none leave in the wrong hands, security guards at the doorway would inspect individuals' computer bags and, upon finding a laptop, would look up the serial number listed on the computer in a company directory, to determine who was authorized to use that machine. The guards would then have to determine whether the individual holding the laptop was the one to whom it was assigned. This system was time-consuming, led to long queues as employees left the building, and was a source of frustration for both guards and workers.

With the RFID system, which was installed in early 2007, the process was automated. Each laptop computer has attached to it an ultrahigh-frequency (UHF) passive Gen 2 RFID tag with a unique ID number. That number is linked in Wells Fargo's back-end system to the computer's serial number, make and model, as well as the name and a photo of the individual authorized to use it. So as an employee with a laptop approaches the building's exit, an RFID interrogator captures its ID number, and a computer screen next to the guard displays the machine's data, along with the user's name and picture, which the officer then compares to the person passing before him or her.

This system, Russo says, saves both guards and employees vast amount of time previously spent looking up laptop serial numbers individually. Since the initial installation, the company has deployed the system at five locations, including some of its primary data centers. Russo declines to name the hardware or software vendors for either installation, but says Wells Fargo wrote the original software application itself and is now

converting the software system and its data to interoperate with the existing ERP system.

Following the success of that deployment, Russo says, the finance company began considering other RFID applications, and started deploying an asset- and inventory-management system at five of its data centers, to track electronic assets within those buildings. The firm has attached EPC Gen 2 tags to tens of thousands of items tagged in the five major data center locations in the United States, he says. What's more, RFID portals and read stations are now being installed at sites where assets are typically moved, in order to capture that movement whenever an asset leaves one location for another, such as from the "raised floor" area where the equipment is operated, to a storage area or toward an exit. Some of the five data centers are also the locations of the laptop-tracking solutions.

In this case, Wells Fargo has the RFID tags on such items as servers, chassis, blades, storage devices and other data center equipment. Each unique ID number is linked to data regarding that asset in Wells Fargo's back-end system. RFID portals are being installed throughout the buildings at locations where equipment could be moved, for example, between storage areas. If, for instance, a piece of machinery is decommissioned, it will leave the raised floor and pass through a portal that transmits the ID number to the back-end system, along with location, time and date. In that way, the company's ERP system can update each item's status (such as decommissioned) and location.

"If you look at it from an efficiency perspective, RFID makes perfect sense," Russo says. By using the technology to track the locations of so many items, he explains, the company is able to save significant man-hours that employees previously spent walking around the buildings conducting manual inventories or searching for data about specific items.

"As we started looking at RFID, we saw more and more clearly that there were ways this technology could benefit the entire industry," Russo says. "We all have the same problems we want to solve."

Russo helped form an RFID special interest group (SIG) within the Financial Services Technology Consortium, a New York-based group comprising several North American financial institutions, including Wells Fargo and Bank of America. The SIG plans to have a standard recommendation for IT equipment vendors that will define the use of Gen 2 tags, and how tags should be applied to equipment they sell to financial market end users (see Banking Group to Set RFID Roadmap).

"We are just about to wrap up the standard," Russo says. That standard will define for hardware vendors such things as the type of tags to use, and where to apply them. "It's an efficiency issue," he states. "If we can simplify workflows for our data center staff, and we use common models with our hardware suppliers, it translates to an advantage for all of us and enables us to provide even greater customer services."

RELATED_ARTICLES If vendors begin tagging their products as they ship them, Russo says, the banks could receive advance shipping notices, and RFID readers at the receiving dock doors could update the bank's ERP system to indicate items have been received.

Russo says he expects the SIG to make its RFID standard recommendation in December.

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