Army National Guard Tracks Assets

A PICS RFID system enables U.S. Army National Guard divisions to locate laptop computers and other electronics as they are moved in and out of their Washington, D.C., headquarters.

By Claire Swedberg

March 3, 2008—The U.S. Army National Guard is employing an RFID system to track office assets at its 12-story headquarters in Washington, D.C. The agency installed the system in early February and is currently in the process of tagging its 10,000 assets.

Approximately 80 staff members from each of the Army National Guard's 57 divisions work at the building. The organization utilizes the system to track where its desktop computers, laptops, projectors and other electronic assets are at any particular time. Each staff member is typically assigned up to eight assets, including computers and other devices, such as Blackberries. When personnel are deployed to other Army National Guard locations, they turn in their electronic devices, which can then be reassigned.

Tracking such a quantity of assets—especially given that many of them move to various locations within the building, or even leave the site—is a difficult task. Beyond keeping records of who should have which items with what serial numbers, the Army National Guard undertakes an annual inventory by having staff members roam through each division's offices, cubicle by cubicle, searching for items and writing down their serial numbers. That can take several weeks, according to Army National Guard Chief Warrant Officer James Roots.

To automate the process, the Army National Guard ultimately turned to Profitable Inventory Control Systems (PICS). "We looked at several options," Roots says. With the PICS system, the Army National Guard prints its own labels using an Intermec PM4i RFID printer. According to Joe Milam, PICS' director of sales, personnel input an item's serial number and description, along with the location where it is expected to reside—such as the division's ID number and the person to whom the asset is assigned—then encode the label's embedded EPC Gen 2 915 MHz RFID tag with a unique ID number that links to that serial number. The 4- by .857-inch labels were designed by Inspec Tech, a label converter based in Valley Head, Ala. The data is then stored in a laptop computer.

When the building's IT department takes inventory of the electronic equipment—as it will now do about every three months, Roots says—the staff will use an Intermec 700 series handheld with an Intermec IP4 RFID interrogator module. The handheld, Milam notes, can be placed in a cradle wired to a laptop to download the latest data about identifying each asset, as well as the name and division of the person to whom that asset was assigned.

As the interrogator is carried through the office, it captures ID numbers from tags attached to assets up to 5 feet away. PICS' Asset Tracker software translates data from the RFID reads and displays alerts specific to missing or misplaced items on the reader. Once an employee has finished making the rounds, that person takes the interrogator back to the laptop and places it in the cradle to upload the reader data to the computer.

The inventory application is not integrated into the Army National Guard's back-end computer system, Milam says, because such software integration would have required a time-consuming certification process that would have delayed the use of the system. "The system is completely off-network," he states.

According to Roots, this is the first of a two-phase installation. The second, which he expects to launch in August of this year, will involve installing RFID portal readers in selected doorways, to be operational by 2009. Roots says the National Guard will install a portal reader at each of the two lobby doors leading in and out of the building, as well as three at the parking garage through which assets can pass on the way out of the building, and at the doorway to every other floor above ground level. The every-other-floor deployment is intended to capture RFID tag numbers as assets are moved from floor to floor, so if a tagged item is taken from a non-RFID-enabled floor, its movement will be noted when it passes an RFID-enabled floor.

RELATED_ARTICLES Whenever an interrogator reads an item's tag, it sends that data to the PICS back-end system, which triggers an alarm (when appropriate) and automatically records the time and location of the incident. The Army National Guard can then review surveillance images at that time to determine whether an item was moved without authorization, as well as who removed it. Before that system can be installed, however, the Army National Guard needs to acquire additional funding with the 2009 budget.

The first phase, including hardware, software and installation, cost $94,000, with the second phase expected to cost an additional $80,000 to $90,000. Training and installation was straightforward, Roots says, requiring the training of seven Army National Guard personnel—including Roots—who will then train others for each division. "It's been working fine," he adds.