

While developing its RFID system with Intelligent InSites, an integrator in Fargo, N.D., Texas Health Presbyterian observed how staff members routinely interact with hospital equipment. "We did a lot of time and motion studies and we found that a nurse spent 13 minutes, on average, looking for a piece of equipment each time it was needed," Abernathy says. The system knocked the time required to find something down to about three minutes. "It saves 10 minutes for each item they need to find," he says.

The hospital is so pleased with its current RFID investment that it's planning to expand the technology into other areas, including equipment security monitoring. "We're in the middle of integrating [RFID with] our security IT cameras, so that whenever a piece of equipment gets



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—JAMES HURT, City of Grand Rapids

within a certain range of an exit, the camera will turn [and begin recording it]," Abernathy says. "The system will also page our security people, so we will have the video of someone leaving with the asset, as well as a patient security officer who can meet the person at that exit to try to keep the shrinkage from occurring."

Mark Meyer, Texas Health Presbyterian's CFO, says whenever the hospital considers a capital investment, it evaluates the potential return. "If it's not a critical piece of equipment related to patient care, then we do look for some kind of a return on that investment."

Abernathy adds that the RFID system's ROI has far surpassed the original estimates, thanks

to savings in acquisition costs, inventory shrinkage and time spent searching for equipment, among other criteria. "The actual results have exceeded that [estimated] return," he says.

GETTING LEANER

It's no secret that municipalities worldwide are struggling to cope with budgets diminished by falling tax revenue. RFID is a tool that can help cash-strapped governments maintain service levels without raising taxes (and public ire). In Michigan, the City of Grand Rapids optimizes recycling truck pickup routes and schedules by analyzing data collected from tagged residential disposal bins. Residents of neighborhoods with high levels of recycling participation are rewarded with points they can redeem for special offers from area merchants.

"We wanted to encourage recycling, but we also wanted to become more efficient and optimize our routes," says James Hurt, the city's public services director. "It really comes down to asset management," he says. The system uses reader-equipped trucks that tell city analysts where each bin is located, when it was last tipped into a truck, how often it's been tipped and other pertinent facts. The information is then used to coordinate pick-up schedules and allocate vehicles to specific routes.

Refuse pick-up is tough work, particularly during harsh Michigan winters. Working with systems integrator AMCS of Limerick, Ireland, and Cambridge, Mass.-based technology developer ThingMagic, the city developed a mobile RFID system tailored for the rugged world of waste carting. "It snows a great deal in the wintertime, and it's tough on our workers and our equipment," Hurt explains. "RFID technology had the [added] benefit of no extra work for our crews—you simply have to tip the cart and it's read."

City managers didn't have to wait long to see the system deliver impressive results. "In the first seven months of 2011, our refuse ton-



nage was down approximately 15 percent—we saved almost \$75,000 by not taking that material to the incinerator to be burned,” Hurt says. As trash loads diminished, recycling tonnage rose by more than 50 percent. “Our community is really recycling... well, gangbusters,” he says. “We have been so pleased with it that we are moving it into the next level of our solid waste management, refuse collection, where we’ll go to a pay-as-you-go system solely.”

Falling RFID hardware costs encouraged city managers to adopt the technology. “Cost is always a factor, especially when you’re talking about these large-scale developments and deployments,” Hurt says. Further research convinced the managers that RFID had become a mature and widely adopted technology. “I’ve just started to learn about RFID technology, and I’ve been very impressed by how it works and how reliable and durable it is,” he says.

PROTECTING REVENUE

It’s difficult enough surviving in the ultracompetitive fashion business without losing precious market share—and revenue—to counterfeiters. That’s why Braccialini, a handbags and fashion accessories manufacturer in Scandicci, Italy, near Florence, turned to RFID for product authentication, to assure that only genuine Braccialini merchandise reaches consumers around the globe.

Braccialini brands such as Gherardini, which has made leather accessories in Florence since 1885, are known worldwide, says Alvis Mariuzzo, the company’s CIO. Such renown, however, makes the items a tempting target for knock-off artists who peddle cheap imitations in shops, at flea markets, on sidewalks and elsewhere for as little as one-tenth the price of the genuine equivalent. “Our goal is to make money,

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