Florida Fire and Rescue Supplier Extends Visibility via RFID

The Bonita Springs Fire Control and Rescue District, using RFID tagging services from supplier QuadMed and a solution from Silent Partner Technologies, has reduced its inventory spending by 30 percent, while the Broward County Sheriff's

By Claire Swedberg

Tags: Health Care, Logistics, Supply Chain, Asset Tracking, Inventory / Warehouse Management, Visibility

Dec 17, 2017—The Bonita Springs Fire Control and Rescue District has expanded its RFID asset-management system this year as its supplier, QuadMed, is now tagging goods sold to the agency, in order to bring visibility upstream while also saving labor costs for the fire and rescue facilities. QuadMed supplies agencies with emergency medical supplies and equipment.

The solution being used by Bonita Springs and QuadMed is provided by Florida-based Silent Partner Technologies (SPT). The system includes the company's IntelliView cloud-based software, as well as ultrahigh-frequency (UHF) RFID tags and fixed SmartShelf or SmartRoom readers and handheld devices.

Natalie Hughes, logistics coordinator of Bonita Springs' medical supplies store room, with tagged goods

The Broward Sherriff's Fire and Rescue Office is launching the same system for tracking some of its 1,900 types of equipment and medical supplies. Such assets range from gloves and beds to medicines and fire hoses. Some of those items will come from QuadMed and could arrive already tagged.

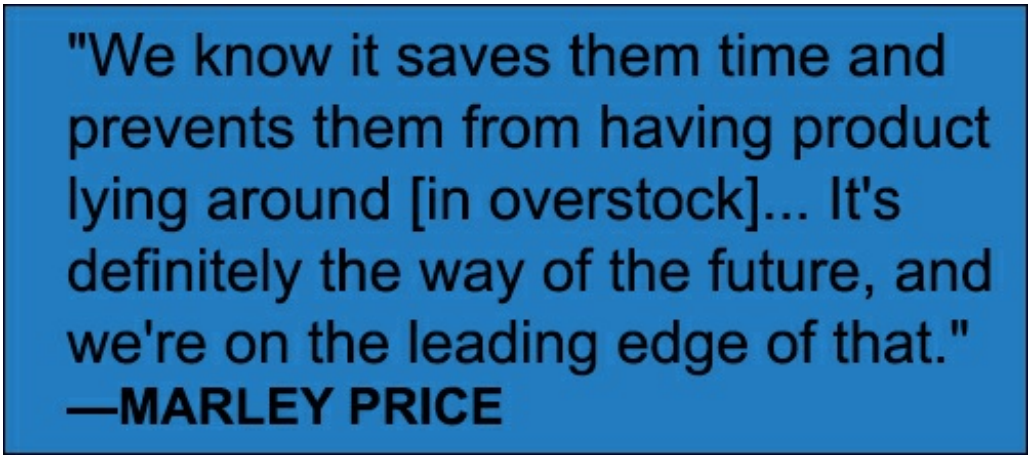
The Bonita Springs Fire Control and Rescue District responds to approximately 6,200 emergency calls annually, 75 percent of which are medical in nature. Its crews and equipment (including seven vehicles) are located at six different stations. It stores medical equipment and supplies within its vehicles, as well as station storage areas and a central medical supply room that acts as a distribution center for all stations and trucks.

Before the RFID technology was installed in 2015, inventory management was performed manually, which made it both labor-intensive and prone to errors, says Richard Scott, Bonita Springs' deputy fire chief. Items might end up being missed during inventory counts and, in some cases, products could expire before they could be used.

"We needed a dynamic system that reacted to the needs of the organization," Scott says, so he began investigating RFID technology. The agency implemented the SPT solution, which consists of passive UHF RFID handheld readers for periodic

inventory counts of its assets at each of the five stations, as well as fixed SmartShelf readers and antenna systems in its central storage area to manage its medical supplies inventory in real time.

The agency began installation in late 2015, and the system was taken fully live in mid-2016. Since then, Scott reports, the agency has saved 30 percent of the money it typically spent on supplies, simply by preventing duplicate ordering and expirations. The organization continues to tag items, however; about 7,500 assets have been tagged to date—approximately 6,000 medical items and 1,500 pieces of equipment—and the long-term plan is to tag almost every item that passes through its stations.



Some of the first assets to be tagged included Jaws of Life, air packs, air bottles and any other items valued at more than $750. Assets that still need to be tagged include blood sugar test kits and disposable items. The agency is using EPC UHF RFID labels provided by Avery Dennison.

In the main supply room, readers and antennas are installed to provide real-time inventory data regarding every tagged item stored there. SPT installed Jadak fixed shelf readers. When an item is tagged and placed within the storage room, the reader antennas capture its tag ID number and forward that information to SPT's IntelliView software, at which point the system updates the current count. Conversely, if an item is removed, the system is updated—which, in turn, affects the "pick tickets" for replenishment by QuadMed or other suppliers.

Many assets are not kept in the storage room, however, and need to be managed as well. Bonita Springs uses handheld readers from Technology Systems (UK) Ltd. (TSL), synched to its iOS handheld devices via a Bluetooth connection. Periodically, employees walk through the stations with the TSL readers and perform inventory counts of goods inside the vehicles, the bays and other storage areas. However, the agency still needed to dedicate time and labor for RFID tags to be applied to products as they were received, and then for the collected data to be entered into the cloud-based IntelliView software.

In March of this year, Bonita Springs and SPT began working with QuadMed, which deployed its own RFID system using IntelliView. The company provides RFID tagging services to its customers for a fee, and can package smaller goods and tag them according to the needs of the fire and rescue agency.

For instance, Scott says, IV catheters come in boxes of 50, but the agency does not need that many on hand at any given time, and predicting when a box containing that large a quantity is likely to run out is difficult. So instead, he explains, Quadmed packages the catheters in groupings of five or ten, attaches a tag to each package and enters the tag ID in the IntelliView system, along with a product description. As the items arrive at Bonita Springs, each is automatically received into the system as employees place the objects within range of the SPT reader-antenna solution, thereby bringing the inventory back to the proper par level.

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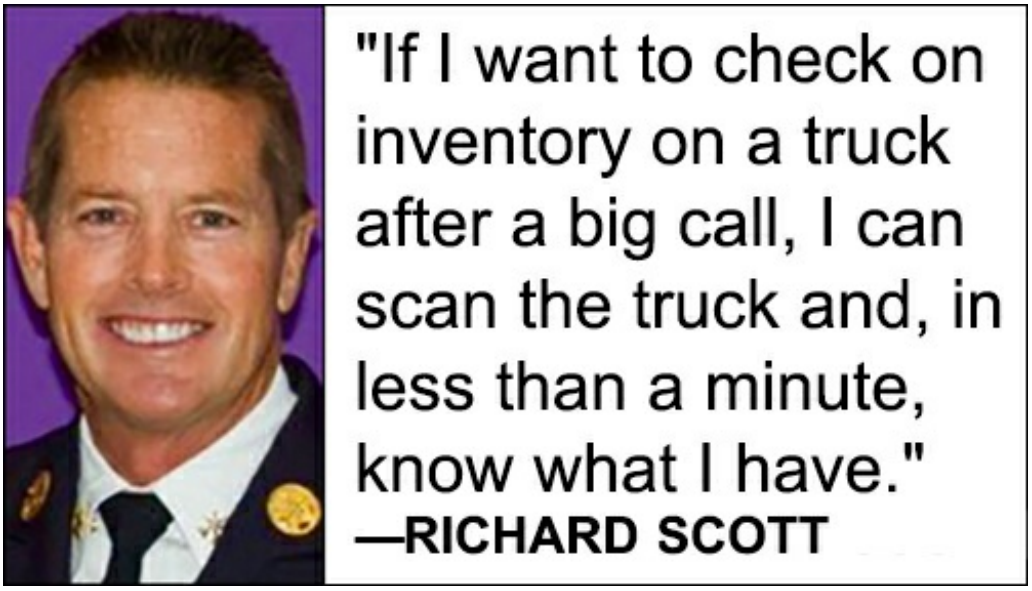


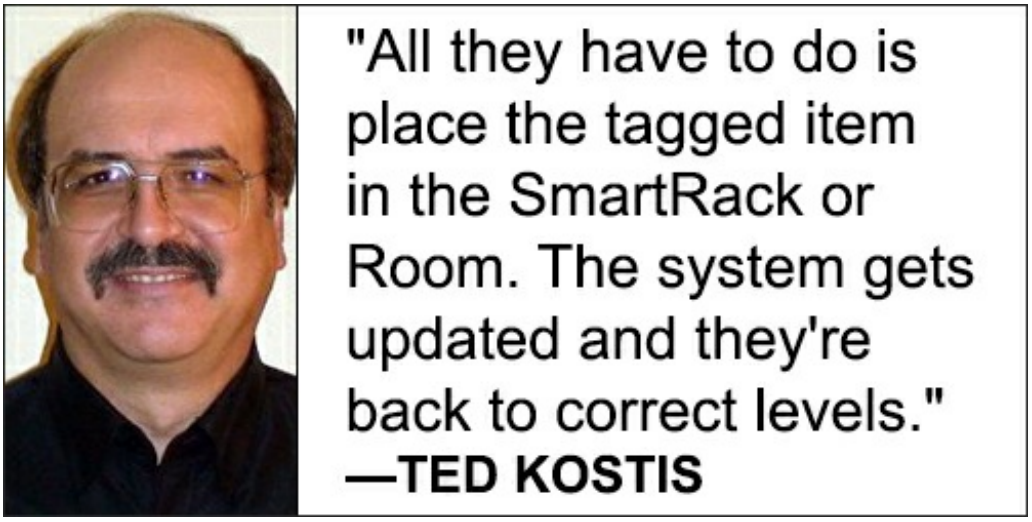
Agencies universally struggle with inventory counts, according to Marley Price, QuadMed's VP and co-owner. Many use manual counts, spreadsheets, bar codes or other inefficient systems to track which goods they have on hand and what needs to be re-ordered. "RFID takes that to a much higher level," he states.

QuadMed is offering its RFID-enabling service to any of its customers. An agency first places an order either directly with QuadMed, or though the IntelliView system. Quadmed then picks the required items for shipping and provides smaller packages of supplies when so requested. It applies an Avery Dennison UHF RFID tag to each package, Price explains, then scans that tag into the system, along with information about the product, such as its lot number and expiration date.

The firm then ships the goods to its customer. The agency can access the IntelliView system to view when particular items were shipped. When it receives a box of supplies, workers can utilize a handheld RFID reader to capture the tag IDs, which are linked to information regarding the products to which they are attached, or they can simply place each item within range of the RFID SmartShelf or SmartRoom. In that way, the agency has an immediate list of all goods available on hand.

QuadMed serves more than 5,000 customers throughout the United States, Price reports, four of which have now adopted the RFID service, and about eight of which are currently in the planning stages to do so. While QuadMed has not been tracking the benefits RFID provides to its customers, Price notes, "We know it saves them time and prevents them from having product lying around" in overstock. When it comes to RFID technology use by fire and rescue agencies, he adds, "It's definitely the way of the future, and we're on the leading edge of that."

At Bonita Springs, Scott is finding benefits not only in terms of labor reduction for inventory counts, but also in improved accuracy of its inventory. The station previously employed a full-time logistics officer, but when that individual left the agency, it didn't need to refill the position. Instead, Scott says, he now has easy access to the information in the software.



"If I want to check on inventory on a truck after a big call," Scott says, "I can scan the truck and, in less than a minute, know what I have." If he seeks overall counts of a specific product or all goods, he adds, "I can inventory all stations" and view expiration dates, as well as place orders based on low counts of specific items. "Now there's no need to order large quantities" due to an unclear understanding of inventory counts, he explains, adding that such a practice previously led to goods expiring more often before they could be used.

Bonita Springs provides tours to other agencies seeking to deploy an automated inventory system, Scott says, and he urges them to take a deliberate and phased approach to deploying the technology. "It's not magic," he states. "If you're not committed to making it work, it won't. The organization takes time" to ensure that the technology is collecting the data required, and that users can access that data.

The Broward Sheriff's Fire and Rescue Office is another agency that will be tracking inventory using its own RFID readers and IntelliView software. Broward County, covering Fort Lauderdale and its surrounding area of Florida, operates 21 fire stations, including an airport and a seaport station, says Vince Cinque, the agency's regional logistics and technology division chief. It employs 700 personnel and has a 30,000-square-foot warehouse to manage goods.

Beyond its own consumption of supplies, it also serves as a reseller for other Broward County agencies. That means thousands of items in its storage area are eventually sold to outside buyers, including everything from medical gloves to oxygen tanks, axes and office supplies.

"We have a significant challenge in understanding where our equipment is," Cinque says, and that challenge becomes even greater when the inventory levels of supplies to be sold elsewhere are monitored. He has been exploring RFID solutions for several years, he says, and began working with SPT to install a system to manage goods within its storage areas with the fixed Jadak readers on shelves.

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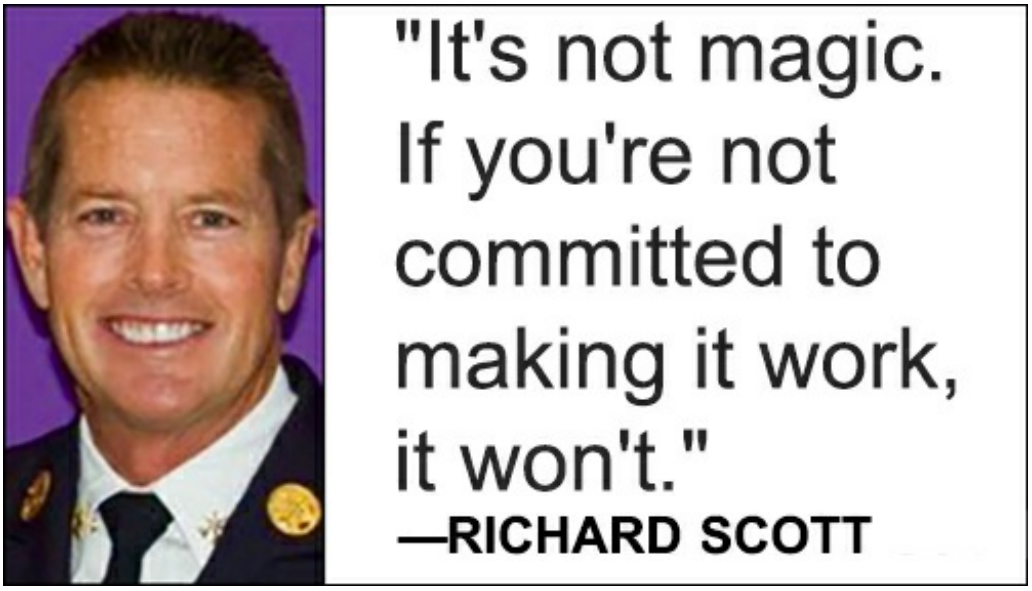

Broward County is currently in the process of implementing its RFID system to track the movements of assets within its stations and on its fire trucks. The agency eventually could tag many of its 1,900 different types of equipment and supplies as well. In the short term, Cinque says, he hopes to tag up to 50 to 60 equipment items that are loaded onto each vehicle, including fire hoses, so that it can track these items while testing them.

The deployment of RFID by suppliers provides a more comprehensive solution for the agencies, as well as potentially for suppliers that could use the technology to track their own in-house inventory, according to Ted Kostis, SPT's president. One obstacle to deploying RFID at fire and rescue stations, he explains, has been the labor involved in tagging goods. By providing that tagging service, he says, QuadMed makes it possible for agencies to more quickly install an RFID system. "All they have to do is place the tagged item in the SmartRack or SmartRoom," he states. "The system gets updated and they're back to correct levels."