Bonita Springs Firefighters Streamline Asset Management with RFID Solution

Fire district uses Zebra RFID Handheld Sleds to reduce costs and enable first responders to focus more time on its primary mission—saving lives.

Bonita Springs Fire Control & Rescue District (the District) serves nearly 80,000 residents in the community of Bonita Springs, located on the southwest coast of Florida. The District operates seven firehouses and responds to more than 7,000 calls per year. In addition to fighting fires, its firefighters are trained as emergency medical technicians and paramedics to perform cardiac defibrillation, vascular access, and other advanced lifesaving procedures.

From firefighting and emergency medical services (EMS) to city infrastructure inspections and maintenance, the District shoulders a variety of responsibilities which require a long and varied list of critical equipment and supplies. Its assets range from Advanced Life Support (ALS) apparatuses—including fire engines, rescue units and boats—to firefighting equipment and small medical supplies on each ALS and at each station. Managing asset inventory is crucial to ensuring its firefighters are prepared with the right tools to fight fires and save lives with optimum readiness at every moment.

An Elegant Solution

The District manages thousands of assets, including 400 items at each firehouse, 2,500 items in a master supply room, and 1,500 fixed assets costing more than $750 each. It also operates nine ALS apparatuses with each one carrying over 160 medical items.

In the past, each firehouse relied on a manual, fallible inventory management process that involved a significant amount of time to track critical resources. The District sought new ways to manage the process for each firehouse to make it faster, more accurate and less costly.
In turn, the District leveraged software and hardware solutions from Silent Partner and Zebra to deliver a RFID inventory and asset tracking system that leverages Zebra RFD8500 Handheld RFID/1D/2D Sleds.

Using Silent Partner’s software and RFID technology in its storage spaces, the District converted its closets into smart rooms, enabling 24/7 real-time inventory reads of all items with RFID tags, including tracking quantities and expiration dates for medications.

The solution enables mobile computers, attached to Zebra handheld sleds, to scan all items with RFID tags located anywhere inside or outside smart rooms. For instance, asset managers can walk around fire station rooms and fire engines using an RFID handheld sled that instantly reads all tagged assets.

“Previously, we counted everything manually with pen and paper and had no visibility so it took a tremendous amount of manpower and attention to inventory our assets,” says Richard Scott, Bonita Springs Assistant Fire Chief. “With Zebra RFID solutions, we can read hundreds of items in seconds. And we can gather asset information anytime, from anyplace on a smart device.”

The solution provides managers instant insight into every asset location and status. The solution also helps first responders understand how to balance assets across the various vehicles and smart closets to better serve the community, prevent supplies waste and ensure compliance to safety regulations.

**Results, Budgetary and Beyond**

Before having real-time visibility, crews would often overload ALS apparatuses or stations with too many supplies just to be sure they had enough. As a result, inventory managers would have inaccurate counts and often over order supplies, incurring extra costs from excess supplies and inventory carrying.

Now, first responders and inventory managers have instant visibility into exactly what supplies are on vehicles and in storage. In the first year, the District saved on carrying costs because of more accurate counts and the ability to complete inventories more frequently.

The solution has also allowed the District to better manage medications. Due to the sensitive nature of medication storage and usage, state regulations have strict oversight and impose severe penalties for storing expired medications or accidentally using them. Inefficient management of medication inventory becomes a liability and raises the potentials of financial and licensing penalties, as well as putting citizens at risk.
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The District now knows at every moment what medications they have, in what quantity and with what expiration dates. These insights enable inventory managers to give medications nearing expiration to third-party companies, rather than having to waste them and pay for disposal.

“RFID has completely changed the way we do our asset tracking and our medical inventory,” Scott says. “Instead of throwing them away, we can pull them ahead of time and recoup costs, sometimes recovering up to 50 percent. There’s no waste and we save a lot of manpower and money.”

The benefits go beyond the budget. By accelerating accurate inventory management, the RFID solution frees up District personnel to spend more time on training, emergency readiness and serving the community to ensure citizens are better protected and supported, especially during major emergencies like the COVID-19 virus outbreak.

Overall, the District achieved 100 percent return on investment (ROI) in its first year of using the RFID solution. It also cut costs for disposables and medications, while reducing time spent on inventorying assets by over 95 percent.

COVID-19 and PPEs
Preparedness is the heart and soul of emergency responders. With Zebra RFID solutions, the District is better prepared for routine calls and large-scale emergency responses alike, including hurricanes or major health crises.

Like so many emergency responders, the District was challenged with acquiring an adequate amount of Personal Protective Equipment (PPE) for firefighters to protect themselves and citizens from COVID-19. The PPEs they did receive required mandatory state reporting of usage.

“We have to justify our usage with real numbers,” Scott says. “Relying on personnel to track use of supplies was inaccurate and inefficient. What RFID helps us do is to show real-time, accurate usage of PPEs. Every morning, I log into the daily report and know exactly what our crew has used.”

The solution has also accelerated required reporting to the Federal Emergency Management Agency (FEMA) for financial reimbursements. Federal funding is available to emergency responders during major emergencies. However, emergency responders have to provide detailed reports on call responses, and assets used (when, where and at what cost) in order to receive reimbursements.
Automation allows the District to accurately track assets and every dollar spent so it can recover costs, as well as position itself for additional funding in the future.

“The joint Zebra-Silent Partner RFID solution has far exceeded our expectations,” says Scott. “It helped us meet all of our goals, including giving us better visibility with less effort. Most of all, it helps our crews focus more on serving the community and be more efficient with their tax dollars.”

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