

# Social Security Administration Tracks Data-Center Assets

The [Social Security Administration](#) (SSA) has reduced the amount of labor required for tracking inventory at one of its data centers by 90 percent, by employing radio frequency identification to manage equipment. Quinn Solem, an SSA IT project manager, presented the details of the solution at the [RFID Journal LIVE! 2013](#) conference and exhibition, held last week in Orlando, Fla.

The SSA launched an IT-management initiative in September 2012, at one of its two national data centers, with the goal of automating inventory and audit processes for IT assets. The agency sought to reduce inventory cycle times, improve inventory accuracy and enhance security.



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To accomplish this goal, the SSA deployed [RFID Global Solution's Visi-Trac Asset Manager](#) real-time visibility platform, using passive ultrahigh-frequency (UHF) RFID tags on assets, as well as handheld readers and fixed portals, to support the agency's IT asset-management efforts at its national data center in Woodlawn, Md. The SSA's data center in Raleigh-Durham, N.C, is scheduled to take the same solution live next month.

The SSA operates its two national data centers 24 hours a day, seven days a week. Each site spans approximately 100,000 square feet and houses 15,000 IT assets (primarily servers and computer monitors) used to manage about 178 million secure Internet-based transactions daily.

The assets represent a huge inventory-management challenge, Solem reported. Equipment, such as servers and monitors, is often moved to one data center or the other. In some cases, the items are taken out of service for repair or maintenance, and are then returned. Accountability for each item, he said, is thus critical. Not only is the equipment expensive—the SSA spends a quarter of million dollars each year purchasing additional items—but security is crucial. There have been no security breaches to date, he reported, and the SSA intends to keep it that way. Knowing that no server has left the facility in unauthorized hands is one way to ensure that security.

In the past, the SSA assigned a staff of three people, working three separate shifts, for a total of one or two weeks each month, to catalog the assets. The workers opened each rack and scanned the bar-coded label on every piece of equipment.

RFID technology, the SSA determined, could automate that process. In addition, the agency sought a better method of ensuring that nothing ever ended up missing, and that mistakes were not made. “We had great processes, but couldn’t prove they were being followed,” he stated, since items still ended up missing from inventory lists. Since there are multiple shifts at the data centers, it is difficult to know which shift was actually responsible for moving a particular asset and thereby causing a discrepancy.

The Social Security Administration looked into implementing a real-time location system (RTLS) employing active Wi-Fi-based RFID tags, but instead chose the Visi-Trac mobile solution with passive EPC Gen 2 UHF RFID tags. The system was first

installed at the SSA's Woodlawn complex, in March of this year. Based on that deployment's success, the agency is now installing the same solution at the Durham location. The system consists of two Visi-Trac Mobile handheld readers and six Visi-Trac reader portals, one located at each doorway. To date, the SSA has fitted 13,000 IT assets with passive UHF hard-cased [Confidex](#) Steelwave Micro tags, with a read range of approximately 6 feet.

If staff members require specific assets, they can use the handheld readers in Geiger-counter mode to locate them among the data center's racks. If an update of all onsite inventory is required, they can walk through the racks and read each tag's unique ID number, which is linked to data identifying that asset and its history in the Visi-Trac software residing on the agency's server. The Visi-Trac system indicates any items that should have been located in the center and were not, thereby enabling employees to conduct a search for those assets.

If any items are removed or returned (typically for servicing), they are carried through the door and past an RFID reader, which also captures their tags' ID numbers and updates their status as having been taken either out of or into the center. The Visi-Trac system sounds an alert, flashes a light at the portal and sends an e-mail or text message to supervisors if an unauthorized transaction is underway, such as the removal of something that should not be moved.

Since the system's installation, Solem said, the SSA has noticed a 33 percent improvement in inventory accuracy. In addition, the Woodlawn center's inventory process now requires only a single worker two to three hours to complete. Based on the pay scale for staff members performing such inventory counts alone, he reported, the system provided a return on investment within approximately 13 months, solely in terms of labor costs.

According to Solem, the agency now often conducts weekly inventory counts “just for fun.” If an item is identified as missing, staff members utilize a handheld reader as a Geiger counter, inputting the missing asset’s ID and walking through the racks until reading the appropriate RFID number, at which time the handheld alerts the user that the item has been located.

The SSA expected the Woodlawn rollout to last for six months, Solem said, but finished one week early and within budget. In the future, he indicated, the agency intends to link staff badge data with the RFID system, in order to track which personnel remove or return particular assets. The badges, which comply with [Homeland Security Presidential Directive 12](#) (HSPD-12), employ wireless technology for access control to data-center doors, he explained, and require that staff members enter a unique access code indicating who they are. Access-control software tracks these events; in the future, the SSA plans to incorporate that information into the Visi-Trac software, to link an individual’s arrival with a specific asset’s removal.