



IMPROVE DATA SECURITY AND IT ASSET VISIBILITY WITH RFID



RFID can enable real-time tracking of servers, tape media, hard drives, laptops and other IT assets without any human intervention — regardless of whether they are on the move, installed in racks or stored in cabinets and on shelves.

CHALLENGE: TRACKING THE MOVEMENT OF HIGHLY SENSITIVE DATA ON AGENCY IT ASSETS

In Federal as well as State and Local government agencies, IT data centers frequently contain hundreds of thousands of IT assets. Tracking these mobile assets to help ensure the security of the highly sensitive data they contain has become a major government initiative that is also mandated by the Federal Information Security and Management Act (FISMA). A complete audit trail of the movement of all assets that contain sensitive data throughout the entire lifecycle of the asset is required — from the time an asset is placed into service to the time it is retired.

But maintaining the required visibility can be a daunting task. Servers, hard drives and external media are always moving in and out of the data center for routine maintenance, repairs and upgrading, while tape media is on the move in and out of tape libraries to maintain required data redundancy and restore data when needed. And often, agency IT assets may travel beyond agency walls to another agency location.

Paper-based or bar code tracking systems at key entry and exit areas can satisfy track and trace requirements. But since these systems are performed manually and require human intervention, the accounting/inventory process is often overlooked, incomplete, or prone to error. In addition, these manual systems lack real-time

visibility, which could delay the detection of a missing asset and increase the risk of a data breach — an event that can potentially threaten national security. And while security cameras may help identify a person who removed an asset, a camera alone cannot detect or trigger an alarm to notify the appropriate personnel of unauthorized movement of IT assets in real time.

SOLUTION: FULLY AUTOMATE AND ERROR-PROOF IT ASSET TRACKING WITH RFID

With RFID, IT assets can be automatically tracked in real time as they enter, reside in and leave the data center. When RFID tags are placed on IT assets, the information on the RFID tags that are within the read range of a given RFID reader is automatically captured. Human intervention is not required, nor is line of sight, and multiple tags can be read simultaneously. Error-prone paper-based processes are replaced with highly accurate and efficient real-time IT asset visibility, protecting against the loss of highly sensitive data — and its tremendous repercussions.

With the addition of RFID-enabled employee badges, RFID readers at check points can automatically capture the identity of the IT asset and the employee who is carrying it. The result is a major improvement in accountability and security — as well as a major deterrent to theft.

KEY BENEFITS

Automates the management of IT data center assets such as servers, switches and data tapes, increasing visibility and operational efficiency

Enables highly cost-effective and automated real-time visibility of IT assets with a full audit trail.

Improves IT staff productivity and overall utilization of IT assets

Enables proactive protection against the loss of IT assets, the data resident on those assets — and the devastating cost of a data breach

Enables cost-effective compliance with government and industry regulations

Improves accountability for IT asset management

Reduces capital equipment purchases

THE MOTOROLA IT DATA CENTER RFID PORTFOLIO

Motorola has taken a lead in offering a portfolio of RFID readers that meets the needs of different applications in different areas of the agency data center. Our XR/FX fixed readers can be used at entry and exit points to automatically capture movement of IT assets near cabinets, shelves and server racks to provide visibility into data center assets. The RD5000 mobile RFID reader can be placed on a cart and wheeled through a data center to take inventory. And the MC9090 RFID handheld mobile computer provides on-the-spot RFID capability plus audible and visual cues that enable IT workers to easily locate a specific item. And this entire portfolio is easy to deploy, use and manage.

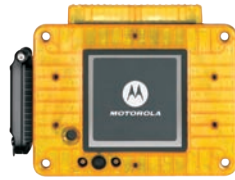
MC9090/MC3090-Z RFID HANDHELD READERS

This rugged mobile computer enables anywhere anytime on-demand RFID reading.



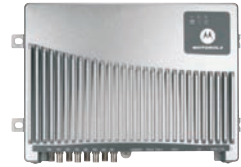
RD5000² MOBILE READER³

Attached to a cart, the RD5000 allows workers to take inventory of even the largest data center in a matter of hours.



XR FIXED RFID READER

Industrial-class reader designed for large scale IT data centers can incorporate alarms, light sensors and notifications from other security-related equipment.



FX7400 FIXED RFID READER

Compact design and highly sophisticated features bring high-performance RFID to space-constrained areas. (plenum rated)



And since a complete audit trail is captured, agencies can easily comply with the myriad of government and industry regulations. FISMA compliance protects national security. Agencies that maintain credit card information can comply with Payment Card Industry (PCI) mandates. And healthcare facilities, including Veteran's Administration (VA) hospitals, can comply with the Health Insurance Portability and Accountability Act (HIPAA) to secure medical information.

RFID applications for IT data center asset management

Cost-effective real-time track and trace

When fixed RFID readers are installed at the entrance and exit points in various facility zones, RFID-tagged IT assets can be automatically tracked from the moment they are received at the dock and as they move through the facility to the data center, the lab for repair or regularly scheduled maintenance or the warehouse for shipping to a different facility. In addition, the many mobile devices containing sensitive data can also be tracked as workers enter and exit the building, from laptops to handheld mobile computers.

The granular tracking data can be automatically filtered and analyzed to identify any potential security issues and help prevent security breaches. For example, if a server is on the

way to the lab for routine maintenance, an alarm can be sent to appropriate personnel if the device does not reach the lab within a designated period of time. Supervisors can see what time the server left and who was in possession of the server, allowing a pinpoint search to begin immediately. Whether the server was inadvertently left in a hallway, or an unscrupulous employee is seeking an opportunity to copy the data on the server or even remove the server from the premises, the enterprise has the real-time visibility required to increase IT asset security — substantially reducing the risk of asset loss or a data breach.

Cost-effective inventory

Compared to manual inventory procedures, RFID enables significantly faster inventory takes — in record time, with record accuracy. Inventory takes are not only simpler to execute, but also much more cost-effective, enabling inventories to be taken more frequently. If fixed RFID readers are in place, inventory is always visible in real time. Alternatively, IT personnel can simply push a cart with a mobile reader, such as the Motorola RD5000, up and down the aisles of the data center, automatically capturing the information on the RFID tag on each asset. Since RFID does not require line of sight, there is no need for employees to climb ladders to audit servers and other inventory on the top of racks and storage shelves. The need to physically handle each device is completely eliminated, along with the need to manually collect asset data. Thanks to the automation

1. FIPS 140-2 (Federal Information Processing Standard) Support with Juniper OAC (Odyssey Access Client) FIPS edition Software - configuration dependant
2. FIPS 140-2 certified
3. Available in US, Canada and other select countries

WITH A MOTOROLA RFID HANDHELD READER, IN JUST SECONDS, IT CAN TAKE INVENTORY OF THOUSANDS OF DATA TAPES OR LOCATE A MISPLACED DATA TAPE.



of RFID, inventory information is virtually error-free — and a complete and accurate inventory of even massive data centers with hundreds of thousands of square feet of space can be conducted in just hours instead of weeks — by just one person.

The cost of an inventory take drops to practically zero hours for a completely automated solution with fixed readers at portals. The solution implemented will be dictated by the level and frequency of visibility that is required. As a result, inventory can be taken whenever it is needed. The automated, accurate and timely inventory data:

- Improves security
- Provides the information needed to properly account for the accurate depreciation of IT assets.
- Improves IT asset utilization — for example, before purchasing new servers or hard drives, a quick scan of a current inventory report might reveal that there are unused devices in a closet that can be utilized.
- Increases productivity, allowing resources to be re-allocated to other more critical data center tasks.

Real-time search

In addition to inventory and real-time track and trace, RFID can also enable the rapid location of a specific asset. For example, the audit trail on a specific backup tape might show that the tape was placed in the library, but is not on the appropriate shelf.

A server may be due for reconfiguration or an operating system upgrade — while a tape drive that has reached the end of its lifecycle must be destroyed. The routine location of these items without RFID is typically time consuming, often taking many hours or even days. But with an RFID handheld reader or a mobile reader, a missing tape can be found in minutes in even the largest of media libraries, and a specific server or hard drive located just as rapidly, all with very little effort — and very little cost.

Real-time file tracking

While maintenance records for IT assets are available electronically, many assets, such as servers and hard drives, also have associated physical files that contain maintenance history, user manuals, warranty papers and more. The paperwork must remain with those devices, never farther away than an adjacent room. Compliance requires the ability to track those files in real time. When an RFID tag is placed on the associated physical files, the enterprise can not only see where an IT asset is at any point in time, but also where its associated file is located as well. Time spent hunting for files is eliminated, freeing workers to focus on more crucial IT tasks.



Whether a hard drive requires regularly scheduled maintenance or is due to be retired, IT personnel armed with a handheld RFID reader can locate the right drive in minutes.

THE ROI OF RFID FOR IT DATA CENTER ASSET MANAGEMENT

The benefits of RFID combine to provide a strong return on investment (ROI) that easily justifies the expense of deploying an automated RFID IT asset management solution. Benefits include:

Reduced capital equipment costs — and improved IT asset utilization. RFID provides the real-time IT asset visibility required to prevent the loss of equipment, whether leased or owned — and the subsequent need to repurchase that lost equipment. In addition, since all assets are always visible, unnecessary equipment purchases are also eliminated. For example, servers that have not yet been deployed are visible and easy to locate, ready to accommodate new applications and increased data storage requirements.

Risk reduction and increased security. RFID can help ensure that only authorized personnel have access to and can remove IT assets. Whenever a preset threshold or rule is breached, RFID, coupled with appropriate software, provides the real-time alerts that enable proactive action. In addition, the ability to track laptops,

handheld mobile computers and more as your mobile workforce enters and leaves the building increases accountability, inciting employees to better care for agency IT assets.

By improving the security of your IT assets and the information on those assets, RFID helps protect against the devastating loss of sensitive data — which could have a disastrous affect on national security.

Increased IT staff productivity. The ability to virtually automate IT asset management practically eliminates the need for IT staff to spend time inventorying assets and tracking down specific assets that are lost or misplaced, or require maintenance, repair or decommission. Some customers report as much as a 95 percent reduction in asset tracking time. Now, your high-dollar IT staff can remain focused on more crucial agency tasks, improving staff utilization.

Cost-effective compliance with government and industry regulations. While compliance with regulations is mandatory, without RFID, that compliance can come at a high financial cost. RFID enables compliance with IT asset tracking-related regulations with virtually no human resources.



MOTOROLA

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