



Motorola's Government RFID Solutions



Business Challenges

The U.S. government today is faced with making itself more efficient and business focused, while continuing to provide high quality and effective services. RFID technology provides a means to meet these challenges, while improving workflow processes and transforming to more business oriented operations. RFID solutions for government agencies can address a number of applications across a diverse array of organizations — from suppliers to government agencies focused on national security or their supply chain to pharmaceutical manufacturers looking to comply with regulatory mandates, each facing their own set of unique challenges. Government suppliers, for example, must meet the requirements of the Department of Defense mandate for RFID tagging items to help streamline its operations. The Department of Homeland Security and the Transportation Security Administration are deploying RFID projects related to national security and worldwide baggage and cargo security applications, respectively. In addition, the Food and Drug Administration is looking at initiatives supporting the use of RFID for pharmaceutical manufacturers to improve the safety and security of the nation's drug supply.

Government Suppliers and The Department of Defense

More than 60,000 suppliers provide the parts, products and items that make up the U.S. Department of Defense (DoD) inventory and supply chain, which national security depends upon. Inventory tracking, an immense logistical challenge throughout the armed services and federal agencies, is directly related to the viability, safety and strength of the military. Speed and power are irrelevant if the supplies — from bullets to bread — aren't there for the soldiers.

The DoD has begun its phased RFID implementation plan. The original DoD mandate required certain suppliers to attach passive RFID tags to cases and pallets starting January 2005. In September of 2005, the DoD issued an updated mandate requiring case-level tagging and electronic advance shipment notices on all new contracts shipping goods to two of its supply depots Susquehanna, PA and San Joaquin, CA. With this new ruling, RFID tags will be required on a specific set of supply classes. Beginning in 2006, RFID tagging will be a contract requirement for all DoD manufacturers and suppliers shipping an expanded set of supply classes.

"With the innovative use of technology, we can protect our citizens and visitors from threats to our security and allow valuable trade and travel into the U.S. to continue and thrive."¹

Jim Williams,
Director of US-Visit Program

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Many government suppliers are implementing a “slap-and-ship” approach to compliance, but with adoption of RFID taking off, more and more are recognizing the benefits that RFID can deliver within their own organizations and are getting a jump on their competition

Border and Immigration Security

The US-VISIT program, hosted by the Department of Homeland Security (DHS), is designed to transform our nation’s border management and immigration systems in a way that meets today’s unique needs and challenges. The RFID component of the program is part of a range of advanced technology security measures such as finger scans and digital photos that track a visitor’s arrival the United States. In August of 2005, the DHS began testing the use of RFID at five ports of entry into the U.S. to track entry and exit movement.

Cargo and Container Security

The Transportation Security Administration (TSA) is looking at RFID to track vehicles and cargo to increase security measures at airports and seaports. Many transportation ports are actively seeking RFID solutions to track the container cargo at all handlers throughout the supply chain. Other applications involve tagging boarding passes, which will streamline the passenger boarding process while enhancing security.

Food and Drug Administration

The Food and Drug Administration (FDA) published a report in February 2004, calling for the testing and adoption of RFID for the prescription drug industry to combat the increasing counterfeit drug epidemic. RFID can provide an “electronic pedigree” from the point of manufacture to the point at which drugs are dispensed. This unique pedigree can also verify a drug’s authenticity, authorization for sale, and whether or not it was previously dispensed. The pedigree will also improve patient safety and protect public health by allowing wholesalers and retailers to rapidly identify, quarantine and report suspected counterfeit drugs as well as conduct efficient, targeted recalls. The FDA subsequently issued a compliance policy guide further promoting the adoption of RFID in the industry, encouraging studies involving RFID and drug containers by relaxing the requirement for special FDA authorization. The guide is not a mandate, but rather a relaxing of labeling rules, as they pertain to RFID.

CASE STUDY #1

Department of Defense (DoD)

With \$71 billion in active inventory², more than \$700 billion in assets and an annual budget that includes \$11 billion in transportation, \$59 billion in maintenance, \$129 billion in total logistics costs and hundreds of thousands of “workers”, the DoD supply chain and the accompanying logistics of synchronization, integration and infrastructure management is a massive challenge.

The DoD views visibility to its supply chain — a component of its In-Transit Visibility (ITV) initiatives — as critical to effective logistics support. RFID can provide that visibility. Through its RFID mandate, the DoD expects to achieve specific goals from its 60,000 suppliers now shipping RFID-tagged pallets and exterior containers to DoD distribution centers in Susquehanna, PA and San Joaquin, CA. The DoD has installed Motorola RFID readers at the two distribution centers to read the tagged items coming into the facilities.



Net Results with RFID

Not only is the DoD improving visibility of information and assets throughout its supply chain with RFID, it is increasing warfighter/ customer and supply chain partner confidence in the DoD supply chain. Early results show improved process efficiency of shipping, receiving and inventory management (timeliness and accuracy of receiving and shipping improved three percent¹) and a reduction in order ship time and customer wait time...critical during war time.

As RFID solutions continue to be deployed through its supply chain, the DoD expects to:

- Achieve near-real time in-transit visibility for all classes of supplies and material
- Obtain “in the box” content level detail for all classes of supplies and material
- Obtain accurate, non-intrusive identification and data collection that enables enhanced inventory management
- Obtain enhanced item level visibility

CASE STUDY #2

Department of Homeland Security

Safety and security, and the rising costs associated with improving both, also present compelling opportunities for RFID solutions at the thousands of travel access points in airports and immigration entry locations. The Department of Homeland Security’s US-VISIT program will provide increased border security and control with the help of RFID. The DHS US-VISIT program has installed Motorola RFID technology at five U.S. ports of entry with Canada and Mexico where fixed RFID readers will read and track RFID-tagged border documents providing immigration and travel information for individuals crossing those borders.

Net Results with RFID

RFID technology can potentially increase the capacity to track entry and exit movement without increasing processing time or adding additional stops. Ultimately, the DHS expects RFID to:

- Facilitate processes for legal travel and trade to the United States
- Ensure the integrity of the U.S. immigration system
- Improve the ability to match the data collected for entries and exits at land borders
- Improve the accuracy of arrivals and departures at land borders
- Protect the privacy of U.S. visitors

RFID Solutions and Benefits

The following outlines the benefits that RFID technology provides through security and inventory solutions for government agency supply chains:

- Increases the speed and accuracy of deliveries by allowing items to be quickly inventoried at the container and pallet level
- Reallocates manpower by automating supply chain functions that were previously manually performed
- Improves inventory visibility, reduces shrinkage through access to real-time inventory information
- Instantly locates and tracks vital equipment and supplies
- Speeds product replenishment and reduces reordering mistakes



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1- www.dhs.gov Press Releases "US-VISIT Begins Testing Radio Frequency Identification Technology to Improve Border Security and Travel"
August, 2005

2- "DoD RFID Policy & Implementation Strategy," Alan Estevez, Asst. Deputy Under Secretary of Defense.



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