

U.S. Military Clarifies RFID Mandate

The Department of Defense provides more information about its plans to require all its suppliers to use RFID tags starting in 2005.

Oct. 10, 2003 - Like Wal-Mart, the U.S. Department of Defense is still working through many of the details of how it will deploy RFID technology. But in an interview with *RFID Journal*, Maurice Stewart, the deputy chief of the DOD Logistics AIT Office, provided more information about the DOD's plans to require all suppliers to put RFID tags on shipments beginning in 2005.

The DOD began looking at RFID as a way to improve logistics after the Gulf War, and it has been using active RFID tags from Savi Technology to track freight containers since 1995. It became a sponsor of the Auto-ID Center in 2000 because it wanted to work with technology vendors and industry partners to develop the Electronic Product Code as a low-cost way to track goods moving through the global supply chain. Stewart says the DOD wanted to use the same RFID technology in its supply chain "to take maximum advantage of all the inherent asset management efficiencies that can be gained from automatic data collection."

The U.S. Acting Under Secretary of Defense, Michael W. Wynne, sent a memo on Oct. 2 to senior military officials announcing an ambitious plan to require suppliers to use active and passive RFID tags on shipments to the military by January 2005 (see Military Edict: Use RFID by 2005). The memo states that "the DOD will be an early adopter of innovative RFID technology that leverages the Electronic Product Code (EPC) and compatible tags." However, it also says: "DOD will embrace the use of commercial documentation standards (ISO standards), which will facilitate our partnership with industry and expedite efficiencies that will benefit both enterprises."

Since the Auto-ID Center's EPC technology and ISO standards for RFID are not compatible, the memo is unclear about how these different RFID technologies will be used. In addition, the DOD has its own identification numbering scheme, called Unique Identification (UID). "What the memorandum states is that we will leverage what industry is doing with EPC," says Stewart. "But the basic standard of the DOD is the ISO standard."

The military's UID is a numbering scheme that identifies the manufacturer of the item, the product category and the unique item. The structure is similar to EPC and the two could be compatible. For instance, EPC tags could have a header that tells computers that the number that follows is a UID code. The tags could communicate with readers based on global standards that ISO is developing for RFID.

"We feel that EPC might be compatible with UID, but we haven't explored it to that point yet," says Stewart. "We have had conversations with EPCglobal and the Auto-ID Center to try to work our way through parallels between EPC and UID."

The DOD will hold meetings on Oct. 22 and Oct. 23 to educate all of its units about the technology standards and business applications of RFID. Stewart expects that the meetings will provide a forum to begin to work through some of the issues surrounding EPC, UID and ISO standards. In January, the DOD will hold an RFID Summit to solicit feedback from suppliers. It will complete its analysis of the initial RFID projects by May

2004 and provide a final RFID policy and implementation strategy by June 2004.

However, the DOD does not expect every supplier to tag every pallet and case starting in January 2005. Instead, the DOD plans to change its rules surrounding the acquisition of materials and supplies to require any company that is renewing a contract or signing a new contract to put RFID tags on pallets and cases, and eventually individual parts. "Any time you are going to disrupt the process of technology, it is going to require some phasing in," says Stewart. "What we will try to do is implement it as quickly as possible through our contracts."

The military will have to upgrade its own RFID infrastructure. The Defense Logistics Agency (DLA) provides more than 4.6 million different items for the military, including food, clothing and protective gear, medical supplies and fuel. DLA also provides 90 percent of the military's construction materials, such as sandbags and concertina wire, as well as 90 percent of repair parts for aircraft, tanks and other critical assets. This fiscal year, it will provide more than \$24 billion worth of supplies and services to America's fighting forces, which means that if it were a business, it would be projected to rank 69th on the Fortune 500.

The DLA is already using a nested scheme where items are scanned and put in boxes. The data on what's in the box is written to the RFID tag on the box. The boxes are placed on pallets and the data is written to the pallet tags. Then the pallets are loaded into a freight container and the data about the pallets is written to the Savi active tag on the container. DLA uses a variety of auto-ID technologies to achieve this and will likely continue using some of these. (For an in-depth case study on how DLA achieves nested visibility, see [\(Military Orders RFID Tracking.\)](#))

By roughly 2010, all pallets and cases shipped to large depots run by the Defense Logistics Agency (DLA) will have to have passive RFID tags. The military expects to achieve many benefits from using passive RFID technology on pallets and cases; most of these benefits are the same as those businesses hope to realize. Better visibility of the materials in the supply chain will allow it to reduce safety stocks. More accurate and timely data will enable it to better forecast consumption of supplies, so it can buy only what it needs and make sure the supplies arrive where and when they are needed.

By enabling data to be captured without manual scanning, the DOD expects to reduce the number of people needed to handle goods and redeploy those people to more critical tasks. Better visibility and new security tags should make it possible to reduce the number of items that are lost or stolen while in transit.

The big question is: Will the DOD's suppliers comply with the plan? "I think we'll get cooperation from industry," says Stewart. "Suppliers can not afford not to implement this technology. It's just like when industry adopted the bar code. You couldn't continue doing business with a pencil and paper. They have to implement RFID, and we have to implement it."

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