

**DOD Compliance**  
**“RFID, UID, and Wide Area Work Flow”**



**Smart Label Solutions, LLC**

**White Paper**



## **Benefits of combining RFID, UID and WAWF**

Goal: Outline the Department of Defense RFID plan and UID plan. Define the similarities and propose an application to combine, in one system, the data collection and tagging of product along with automating the data exchange with the Department of Defense.

## **Definitions**

RFID is a technology that is being applied to the DOD supply chain for a simple reason. No human intervention is needed to identify a product moving through an RFID enabled gate in the supply chain. The license plate info of the product is encoded in an RFID chip that can then be read when a tag moves through that gate. The RFID technology used for the item, case and pallet marking initiative at the DOD is a passive technology that is being adopted not only in the DOD supply chain but in the retail supply chain at large. The Retail and DOD initiatives share the Gen2 standard set forth by the EPC Global, Inc. (Electronic Product Code)

UID is a unique identifier that helps manage an asset throughout its life cycle. It is marked on an item using a data matrix barcode that can be machine read at anytime.

Both these marking schemes are being implemented by the DOD and suppliers that are responsible for the marking of items, cases and pallets.

WAWF (wide area workflow) is a system open to all government suppliers. It facilitates the advanced shipping notice task and the receiving and receivable motions along with other functions such as alerting the supplier's quality inspector to the fact that a shipment is ready to go. Suppliers are most certainly using this technology today for interfacing to the government as they are fulfilling current contracts. The process when tagging with RFID or UID is no different with one major issue. EVERY PART NOW HAS A UNIQUE NUMBER, MAYBE TWO, THAT HAS TO BE ENTERED IN TO WAWF. If a company is shipping a lot of items, cases or pallets to the DOD, entering this info as you do today may not be feasible.

## **RFID Stated goals and the suppliers roll in fulfilling them.**

Dedicated to becoming an early adopter of RFID technology, the United States Department of Defense has begun implementing RFID technologies to facilitate the hands free data collection in support of DOD business processes. Proof of the DOD's commitment can be found in



recently awarded contracts to integrators for the roll out of RFID technologies to the DOD's own distribution facilities.

The suppliers roll in this effort is to tag cases and pallets covered under the applicable clause in their contract. The supplier then needs to collect and aggregate that information and load it into the WAWF system as part of their DD250

**Common issues faced by the suppliers when complying with the RFID mandate.**

The issues fall into a predictable pattern that is common with all new technology and some issues that are peculiar to RFID.

Because the technology is new to the supplier a steep learning curve is in front of them. There are many resources for this education.

Once a certain comfort level with the technology is attained a search for an integrator is next. This will start with current vendors but will not likely stop there as many of the best integrators for new technology are specialists. This is no different for RFID.

The issue then becomes one of being able to drive the new RFID hardware, integrate the data into current systems and most importantly disrupt current practices as little as possible. This is critical to success as not all things will be tagged. Switching between tagging and not tagging can create havoc on the production floor if the System needed is too invasive. This is where the need for a good middleware and integration services come from. Suppliers get to the spot where current software can't handle the needs and something is needed out front of the current system that synchronizes data, drives hardware and minds the production flow of goods and the possible pitfalls of where to tag and verify.

**UID stated goals and the Suppliers roll in fulfilling them.**

The GAO, General Accounting Office, has adopted the use of the UID program to help alleviate the stated issues of 1) knowing the quantity, condition and value of assets 2) safeguarding assets from mismanagement 3) prevent purchase of assets already on hand and 4) determine full costs of government programs that use these assets. With this in mind the DOD has mandated that all items with a \$5000 unit value or deemed sensitive or classified will be marked. Joint total asset visibility is the capability that provides Combatant Commanders, the Military Services, and the Defense Agencies with timely information on products tagged with this technology. This visibility is a major driving factor in the implementation of UID.

The Suppliers roll in this initiative is to mark qualifying items with machine readable information if the items have been determined to meet the requirements and it is called for in



the supplier's contract. The supplier must mark with a data matrix barcode using appropriate marking technology. The supplier must then upload the UID information through the WAWF or the UID registry. Again this is a serialized number therefore manual upload is nearly unmanageable. An automated data transfer becomes the cornerstone of a successful system.

**Common issues faced by the suppliers when complying with the UID mandate.**

A marking method must be chosen. This decision is driven by the type of material to be marked and the permanent nature of the mark as outlined by the DOD. Since marking an item will most certainly be done at manufacture, this is the one piece of equipment that may not be included under the combine UID/RFID system. This system is best used at packaging and/or shipping which often times is not associated either physically and/or logically within the supplier's organization. It becomes important to decide what system will drive the marking device. It does not have to be the system collecting the data and transmitting it.

**Benefits of combining the solutions of both technologies in one purchase**

Both these technologies are coming to DOD suppliers. Both are machine readable marking technologies. Both tags are serialized items and need to be electronically passed to the Government before shipping. These common factors make it possible to have one system to solve all three for both marking technologies.

The system would accomplish the following:

It would be installed at one time with the ability to collect and submit data regardless of which marking method needs to be implemented. This reduces installation time and capital spent. By doing both at once there is much less disruption to current process then if done separately when needed.

One terminal can read and collect data from both technologies. This is critical for building the secure file that will be electronically submitted. Trying to keep UID labels associated with their RFID case label before they are physically together would be too disruptive to your current process. The Defense Logistics Agency prefers UID data be transmitted through WAWF. If the case the UID item is in is tagged with an RFID label then the UID and RFID must be associated before data can be submitted.

The system will be able to build the file transferred from the contract set up screen, entered once per contract, and the data collected during pack. This data will either be RFID only, UID only or the combination of both. In each case the data is then transferred to the DOD. It is critical this be done from your location! Out sourcing this chore seems like the easiest route



but, as stated earlier, this data transfer initiates receivable activities. That means pricing and quantity data is also sent; best that this type of information stay between the supplier and the government.

Since RFID marking will take place at packaging or shipping the system must be able to create the RFID identifier, drive the encoding of the tag and verify the readability. It may also need to integrate to back end systems. In RFID jargon it must also be the middleware that RFID technology demands today.

### About Smart Label Solutions

Smart Label Solutions provides automated identification and data collection RFID and Barcode solutions for use in streamlining supply chain management (SCM) operations.

We help you address the full supply chain spectrum:

- Strategy, planning and SCM Blueprint for success
- Entry-level & integrated demand-driven supply chain applications
- Logistics, inventory and operational improvements

Products and solutions:

- **smartEPCTM** RFID Compliance Solutions, including Wal-Mart and Department of Defense Mandates
- RFID and Barcode Data Collection Solutions
- Supply chain peripherals (printers, scanners, readers, terminals, supplies)
- Professional Services

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