2005 DOD RFID Summit for Industry

RFID Small Business Discussion

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February 10, 2005

Overview

- **DOD RFID Policy Recap**

- **Use of Wide Area Workflow**

- **Implementation Options**

- **Summary**

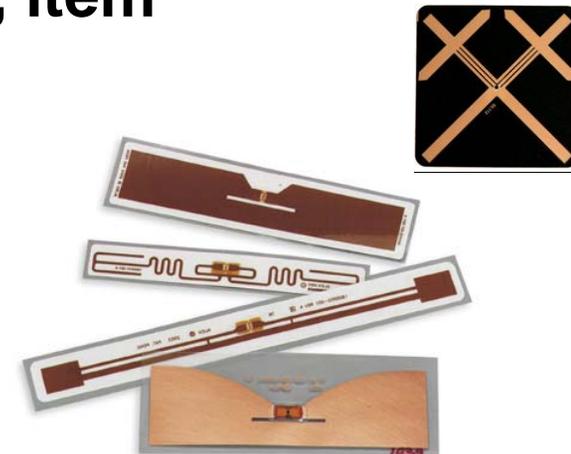# DOD RFID Policy Requirements

Active RFID – freight containers, air pallets

- *SAVI 433 Mhz readers*
- *SAVI 410 tags*
- *SAVI 654 tags*
- *DoD tag data formats*

Passive RFID – case, pallet (all items), item packaging (UID items)

- *EPC std UHF readers*
- *EPC Class 0 & 1 std tags*
  - *Migration planned to EPC UHF Gen-2 std*
- *EPC and DoD tag data formats*

DOD RFID Implementation Road Map

60,000 DoD Manufacturers/Suppliers

DFAR – new contracts after 1 OCT 04

Classes of Supply

Level of Tagging

Ship to Locations

January 1, 2005

Classes of Supply:

- II, VI, IX, I (PORs/MREs)

Level of Tagging:

- Shipping Containers, Palletized Unit Loads, Exterior Containers

Ship to locations:

- San Joaquin, Susquehanna

January 1, 2006

Classes of Supply:

- Begin All Classes

Level of Tagging:

- Shipping Containers, Palletized Unit Loads, Exterior Containers

Ship to locations:

- Strategic CONUS DLA Depots, TRANSCOM Facilities & Service Maintenance Facilities

January 1, 2007

Classes of Supply:

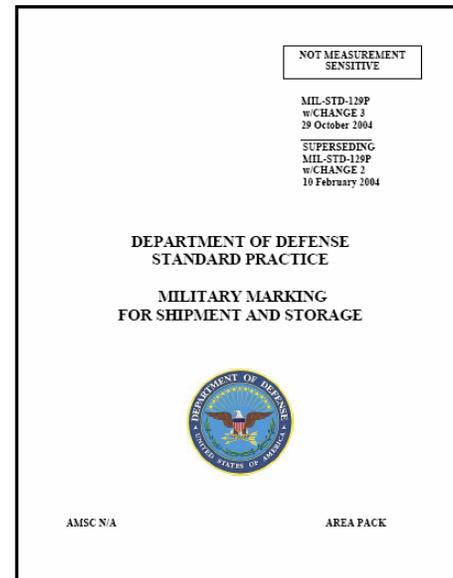- All Classes

Level of Tagging:

- Shipping Containers, Palletized Unit Loads, Exterior Containers, UID Item Unit Pack

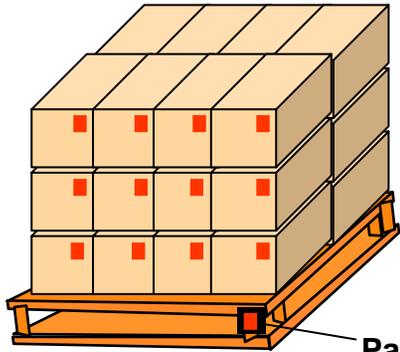**Ship to locations:** All Locations

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Contractual Requirements

- **Two Major Requirements for Suppliers**
  - Passive Tagging at the case, pallet, UID item packaging level in accordance with the Implementation Plan
  - Advance Ship Notice (ASN)

- **DFAR clause references MIL-STD-129P (Ch-3) for implementation details**
  - Definitions
  - Tag Data Standards
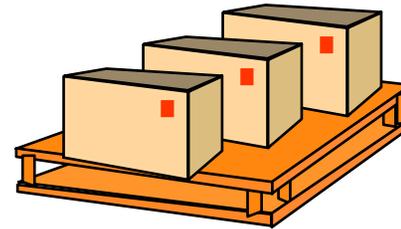 - Tag Placement
  - Performance Requirements

NOT MEASUREMENT SENSITIVE
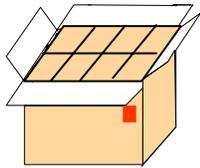
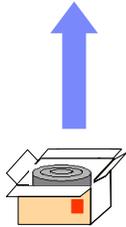MIL-STD-129P
w/CHANGE 3
29 October 2004

SUPERSEDING
MIL-STD-129P
w/CHANGE 2
10 February 2004

DEPARTMENT OF DEFENSE
STANDARD PRACTICE

MILITARY MARKING
FOR SHIPMENT AND STORAGE

AMSC N/A   AREA PACK

Tagging and Label Placement

Palletized Unit Load Tag
YES – January 1, 2005 - 2006

Pallet tag

Exterior Container
YES – January 1, 2005 - 2006

Shipping Container
YES – January 1, 2005 - 2006

UID Item Unit Pack*
No – January 1, 2005 - 2006
YES – January 1, 2007

*If UID Packaging is also an External Container or Shipping Container, it will have an RFID tag.

Use of Wide Area Workflow (WAWF)

- **Vendors providing Services and/or Products to DOD**
  - Create invoices & Receiving Reports
  - Electronically route Receiving Reports to the DOD agencies
  - Monitor status of documents as processed by DOD agencies
  - Access documents and ONLY correct the required data

- **Registration with Central Contractor Registry (CCR)**
  - On-line registration
  - Assistance provided on WAWF web-page

- **Information & Registration at: https://wawf.eb.mil/**

Top Five Considerations When Choosing an RFID Solution

- **Consider the Audience**

- **Identify the uses for RFID technology**

- **Consider the value of an RFID System**

- **Identify the performance characteristics**

- **Determine if you need a dual system**

Option 1: Pre-Programmed DOD Compliant Tag Solution #1

Meeting the Requirement

- **Pre-encoded tags from tag OEMs**
  - **EPC or DOD Construct**
  - **Case or Pallet Filter Value**
  - **Listing of Tag IDs provided**
- **EPC Members use EPC Mgr No.**
- **Others use CAGE Code**

Tagging and Data

- **Tag case/pallet at pack/ship point**
  - **Apply per MIL-STD-129P**
- **Send ASN via WAWF**
  - **Web-entry method/format**
  - **WAWF guide for ASN/Tag ID**

Infrastructure and Cost

- **Minimal investment**
  - **Existing IT resources**
  - **Internet connectivity**
  - **Pre-encoded tag stock**
- **Lowest $$ investment**

Other Requirements

- **Military Shipping Label (MSL)**
  - **Existing requirement**
  - **Apply per MIL-STD-129P**

Option 2: Pre-Programmed DOD Compliant Tag Solution #2

Meeting the Requirement

- **Pre-encoded tags from tag OEMs**
  - **EPC or DOD Construct**
  - **Case or Pallet Filter Value**
  - **Listing of Tag IDs provided**
- **EPC Members use EPC Mgr No.**
- **Others use CAGE Code**

Tagging and Data

- *Verify Tag ID with Hand-Held Reader*
- **Tag case/pallet at pack/ship point**
  - **Apply per MIL-STD-129P**
- *HHR inputs Tag ID into IT for ASN*
- **Send ASN via WAWF**
  - **WAWF EDI to DEBX**
  - **Web-entry method/format**

Infrastructure and Cost

- *Small investment*
  - **Existing IT resources**
  - **Internet connectivity**
  - **Pre-encoded tag stock**
  - *Hand-held reader (HHR)*
  - *Reader software*
- **Low $$ investment**

Other Requirements

- **Military Shipping Label (MSL)**
  - **Existing requirement**
  - **Apply per MIL-STD-129P**

Option 3: On Demand Internal Printing Solution #1

Meeting the Requirement

- *Blank Class 0/1 tags from tag OEMs*
- *Encode/verify tags with fixed or HHR*
  - EPC or DOD Construct
  - Case or Pallet Filter Value
- EPC Members use EPC Mgr No.
- Others use CAGE Code

Tagging and Data

- *Write Tag ID with Fixed or HHR*
- Tag case/pallet at pack/ship point
  - Apply per MIL-STD-129P
- *Fixed or HHR inputs Tag ID into IT*
- Send ASN via WAWF
  - WAWF EDI to DEBX
  - Web-entry method/format

Infrastructure and Cost

- *More infrastructure investment*
  - Existing IT resources
  - Internet connectivity
  - *Blank RFID Cl 0/1 tag stock*
  - *Fixed or Hand-Held Readers*
  - *Robust read/write software*
- *Larger $$ investment*

Other Requirements

- Military Shipping Label (MSL)
  - Existing requirement
  - Apply per MIL-STD-129P

Option 4: On Demand Internal Printing Solution #2

Meeting the Requirement

- *Blank Class 0/1 tags in Label stock*
- *Encode/verify tags & write MSL*
    - *Single "Smart Label"*
    - EPC or DOD Construct
    - Case or Pallet Filter Value
- EPC Members use EPC Mgr No.
- Others use CAGE Code

Tagging and Data

- *Write Tag ID & MSL data with RFID equipped printer – print "smart label"*
- *MSL/Tag on case/pallet at pack/ship*
    - Apply per MIL-STD-129P
- *RFID Printer inputs Tag ID into IT*
- Send ASN via WAWF
    - WAWF EDI to DEBX
    - Web-entry method/format

Infrastructure and Cost

- *More infrastructure investment*
    - Existing IT resources
    - Internet connectivity
    - *Blank RFID CI 0/1 tag stock*
    - *RFID reader equipped printer*
    - *Robust read/write software*
    - *Printer controller software*
- *Larger $$ investment*

Other Requirements

- *Can incorporate both fixed readers or HHR for additional functionality or capability*

Option 5: Full RFID Integration

Meeting the Requirement

- *Blank Class 0/1 tags in Label stock*
- *Blank Class 0/1 tags*
- *Encode/verify tags & write MSL*
    - *Single "Smart Label"*
    - EPC or DOD Construct
    - Case or Pallet Filter Value
- *Encode discrete tags with fixed or HHR*
- EPC Members use EPC Mgr No.
- Others use CAGE Code

Tagging and Data

- *Write Tag ID & MSL data with RFID equipped printer – print "smart label"*
- *Encode discrete item tags (as req) with fixed readers or HHRs*
- *MSL/Tag on case/pallet at pack/ship*
    - Apply per MIL-STD-129P
- *RFID printer & readers input Tag ID into IT*
- Send ASN via WAWF
    - WAWF EDI to DEBX
    - Web-entry method/format backup

Infrastructure and Cost

- *More infrastructure investment*
    - Existing IT resources
    - *Internet and EDI connectivity*
    - *Blank RFID CI 0/1 tag & Label stock*
    - *RFID reader equipped printer (s)*
    - *Fixed and HHRs*
    - *Robust Edge SW and MW*
    - *Printer controller software*
    - *Servers for Edge SW and MW*
- *Large $$ investment*

Other Requirements

- *Can incorporate both fixed readers or HHR at portals or conveyor systems per company business processes*
- *WLAN RFDC as required for HHRs*
- *Tag ID verification can be at conveyors, printers, HHRs, or portals as required by the business process*

Summary

- **Review DOD RFID Policy requirements**
- **Review your business processes**
- **Analyze shipments of material to DOD**
    - What material
    - Quantity of material
    - Destination of shipments
    - Shipment configuration/type
- **Select or design an option that fits your business**
- **Plan the implementation**
- **Select HW/SW vendors**
- **Roll-out implementation**
- **Coordinate with DOD Contracting Officials**
- **Collaborate with customers and suppliers**

Points of Contact

- **ADUSD Supply Chain Integration Office – Kathy Smith**

    - **kathleen.smith@osd.mil**

        - **DOD Logistics AIT Office – Ed Coyle**

            - **ed.coyle@dla.mil**

                - **DOD Web-Sites**
                    - **www.dodrfid.org**
                    - **www.dodait.com**