2004 RFID Summit for Industry
DoD RFID Policy Update

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Current DoD Logistics Priorities

Area	Priorities
Weapons systems	▪ PBL ▪ Maintenance excellence
Commercial commodities	▪ Material handling ▪ Customer pay
Strategic distribution	▪ DPO, DDOC ▪ TAV
Enablers	▪ Enterprise Integration ▪ RFID/UID/CBM+

Measure Output; Influence Behavior

DoD Logistics Scorecard

Service, Agency & Supplier Scorecards

Functional (Departmental) Scorecards

Process (Tactical) Scorecards

CWT ➔ *Perfect Order Fulfillment*

Shifting the Paradigm

Speed ➔ Meeting Warfighter Requirements

- Right Time
- Right Quantity
- Serviceable Condition
- Complete Documentation

Performance Criteria Will Drive Behavior

DoD Logistics BSC Level 1 & 2 Metrics

I&L requires additional work

Warfighter

L1: Force Readiness
L2: Equipment Readiness
L2: MC Rates
L2: Commodity Availability
L2: Logistics Units Readiness
L2: Prepositioned Readiness
L1: Force Sustainment
L2: Materiel Support
L2: Services Support

L1: Force Closure
L2: Distribution Capacity
L2: Distribution Visibility & Control
L2: Distribution Effectiveness
L2: Combat Effectiveness Achievement
L2: Prepositioned Effectiveness
L1: Reset
L2: Reset
L2: Operational Draw-down

Innovation & Learning

L1: Innovation Realization
L2: Rate of Transformation
L2: Rate of Improvement
L1: Workforce Capability
L2: Workforce Shaping
L2: Learning Transformation
L2: Employee Climate

Logistics Process

L1: Logistics Chain Reliability
L2: Perfect Order Fulfillment
L1: Logistics Chain Effectiveness
L2: Logistics Chain Agility
L2: Logistics Chain Cycle Time

Resource Planning

L1: Logistics Chain Predictability
L2: Planned Cost to Actual Cost
L2: Demand Forecast Accuracy

L1: Logistics Chain Cost Effectiveness
L2: Total Logistics Chain Cost Percentage
L2: Total Logistics Chain Cost
L2: Value Added Productivity

Why we need RFID . . .

Visibility is Critical to Effective Logistics Support

Facing new challenges…

- **Rapidly moving force on a dynamic battlefield**

- **Demand for better information on in-transit assets**

- **Need for more effective management of inventory**

Why RFID now?

Timing is right...

- **To capitalize on emerging supply chain technologies**

- **To influence direction and cost of the technology**

- **To make the standards work for us**

Lay the foundation for future supply chain improvements…TODAY!

RFID for DoD

VISION: Implement knowledge-enabled logistics through fully automated visibility and management of assets in support of the warfighter

GOAL: Employ mature and emerging supply chain technologies to optimize the supply chain

OBJECTIVE: Utilize RFID to facilitate accurate, hands-free data capture in support of business processes in an integrated DoD supply chain enterprise as an integral part of a comprehensive suite of AIT technology.

DoD RFID Policy

WHO is affected by DoD RFID policies?

WHAT do the policies cover?

WHEN does the implementation take effect?

WHO is Affected ?

- **ALL DoD suppliers of ALL material and goods purchased by the Department**
  - **Excludes bulk commodities**

- **As a supplier to DoD, the policy impacts you**

- **DoD will continue to partner with you on this critical initiative**

- **Commodity assessment underway**

WHAT does the policy cover ?

- **Active RFID**

- **Passive RFID**
  - ➢ *EPC Compliant Technology*

Passive RFID

- ## DoD will be an early adopter of *passive* RFID

  - ### Implement passive RFID Business Rules - 1 Jan 05

    - Passive tagging of materiel shipped to DoD

      - Case/warehouse pallet

      - Unique Identification (UID) packaging

    - Initial DoD capability to read passive RFID tags and use data

  - ### Publish DFARS Rule requiring passive RFID

    - *Solicitations issued after 1 OCT 04 for delivery after 1 Jan 05*

  - ### Use EPC compliant technology

  - ### Integrate RFID data into the DoD Business Enterprise Architecture

Reduced Total Ownership Costs

Passive RFID in the Supply Chain

- **Tagged items/cases/pallets shipped from suppliers**

- **Shipment/order data to DoD**
    - *Advanced Ship Notice (ASN)* **Required**

- **Shipment/order data captured in DoD Data Environment**

- **RFID tag read on arrival at DoD Receiving Point**

- **Tag read generates** *Transaction of Record*
    - *Receipt*
    - *Acceptance*
    - *Close-out*
    - *Payment*
    - *Inventory adjustment*
    - *Update to asset visibility systems*

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RFID Vision Within the DoD Supply Chain
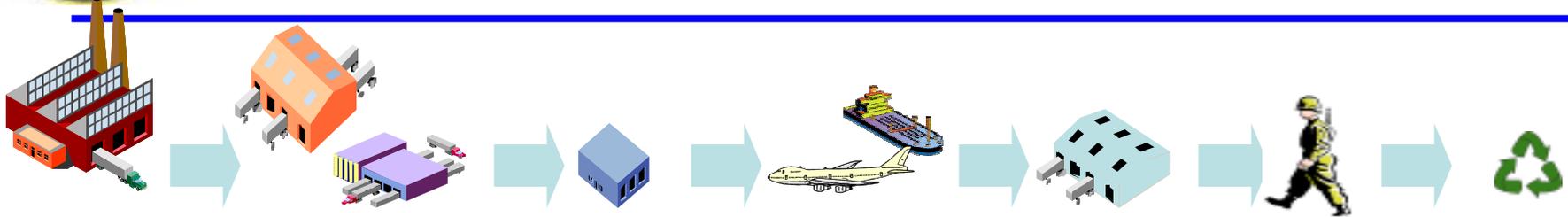
OEM/ Suppliers	Distribution Centers/ Depots	Maintenance	Transportation	Installation	Customer	Disposal/ Reutilization

Distribution Centers/ Depots
- RFID read/apply at the following layers: item, package, transport unit, unit load or pallet, and container.
- Provide ASN information
- Automated Receipt process
- Asset management/Inventory management process
- Put away/ Select/ Issue/ Stage/ Ship by RFID

Transportation
- Read at the following layers: package, transport unit, unit load or pallet, and container.
- Apply tags when Consolidate and Deconsolidate (Reconfigure)
- Provide ASN info
- Replace damaged tag

Customer
- Process ends where requisition document number receipt is processed

OEM/ Suppliers
- RFID tags will be applied to the following layers: item, package, transport unit, unit load or pallet, and container.
- Provide an advanced ship notification (ASN) into the DoD data environment via an RFID read at the point of origin
- Provide a reach-back capability to access "ASN" level info.

Maintenance
- RTLS- Real Time Location System where it makes business sense.
- RFID the work control document
- Kill RFID tag

Installation
- TMO Activity- Apply tags at the point of origin
- Supply Activity- Replace damaged tags
- Supply Activity- Associate an RFID tag with a requisition document number
- Send ASN information

Disposal/ Reutilization
- Apply/Read at the following layers: package, transport unit, unit load or pallet, and container.
- Kill RFID tags (for disposal only)

Passive RFID Affects These Processes

Actor	Source: Schedule Deliveries	Receive Product	Verify Product	Authorize Supplier Payment	Manage Inventory	Make/Repair: Package Product	Stage Product	Ship Product	Deliver: Consolidate Orders	Plan and Build Loads	Ship Product	Receive Product	Verify Product	Manage Inventories	Authorize Payment	Receive and Verify Product (Customer)	Authorize Payment	Manage Orders: Create Orders	Validate Orders	Confirm Orders	Reserve Inventory	Monitor Status	Return: Identify Item for Return	Request Replacement Credit	Request Disposition Instructions	Plan and Build Loads	Ship Product	Deploy: Prepare Materials	Stage Materials	Ship Materials
Manufacturer/Supplier						x	x	x																						
End Customer																x	x	x				x						x	x	x
Transportation/Base Supply									x	x	x	x	x	x	x			x	x	x	x	x	x	x	x	x	x			
Depot/Distribution Center	x	x	x	x	x				x	x								x	x	x	x	x	x	x	x	x	x			
POE/POD										x	x	x	x			x							x		x	x	x			
Theater Distribution Center									x	x	x	x	x			x						x	x		x	x	x			
Theater Depot (SSA)									x	x	x	x	x	x		x		x	x	x	x	x	x	x	x	x	x			
Retail Requisition/Inventory Management Systems									x	x	x	x	x	x	x	x	x	x	x	x	x	x								
Wholesale Requisition/Inventory Management Systems	x	x	x	x	x			x	x	x	x							x	x	x	x	x								
POE/POD Systems										x	x	x	x			x						x								
Intransit Visibility Systems		x						x	x	x	x					x						x				x	x			
Distribution Management Systems									x	x	x	x	x			x						x		x	x	x	x			
Manufacturer's Systems						x	x	x										x	x	x	x	x								
DoD Transmission Systems	x	x	x	x				x	x	x	x					x		x	x	x	x	x				x	x			x
Unit Deployment Systems																						x						x	x	x

Objects to be tagged

Pallet

Case

Item Packaging (UID items)

Tags will be nested

Passive Pallet Tag

associated to a…

Passive Carton Tag

associated to …

8 UID Packaging Tags
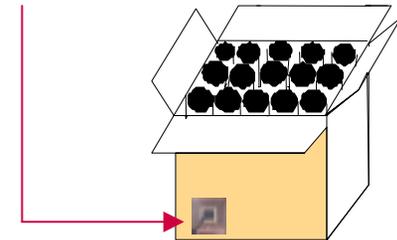
each with 1 associated

UID item
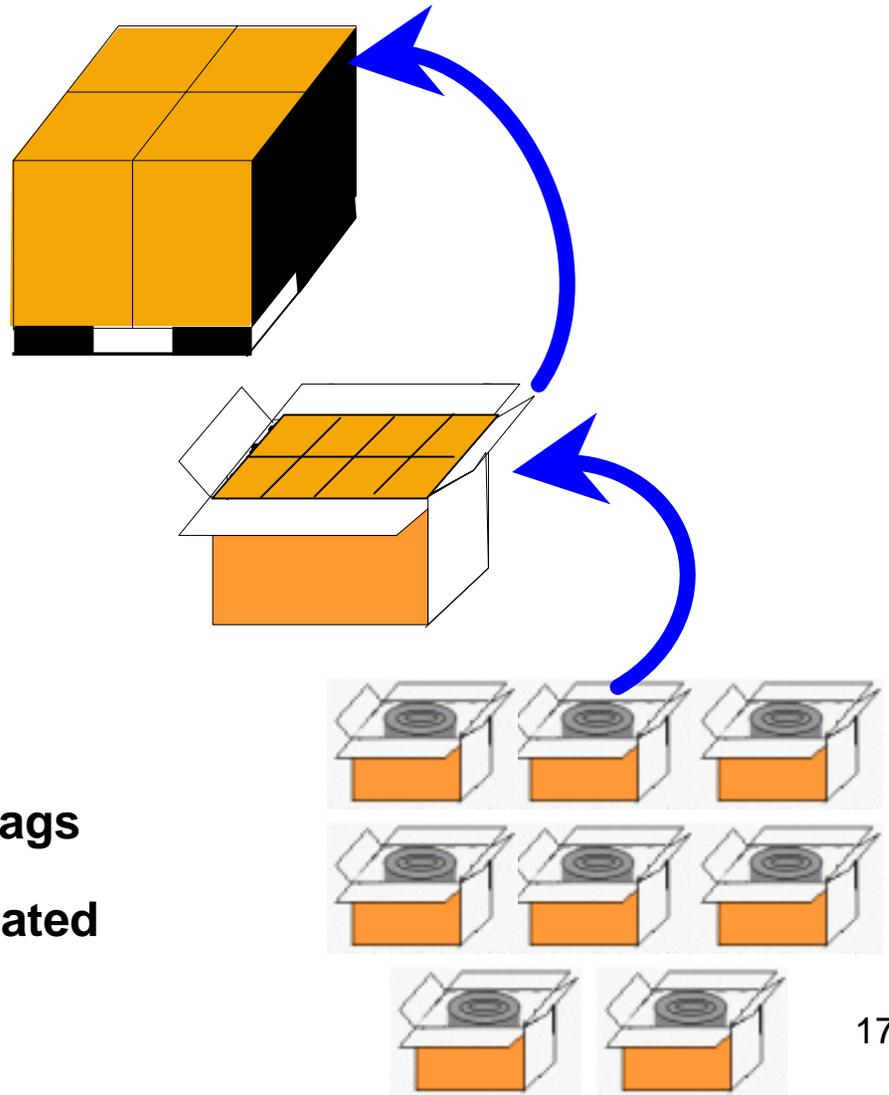
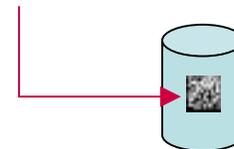# RFID facilitates UID

RFID Tag (Pallet Level)

RFID Tag (Case Level)

RFID Tag (Item Package Level)

UID Data Matrix (Item Level)

Passive RFID Tag Data

- **Accept EPC data constructs for unique ID on the Tag**
    - **SGTIN** for UID item packaging
    - **SSCC** for box, case, and pallet

- **Working with EPCglobal on acceptance of organizational naming conventions (CAGE, DUNS, DODAAC)**

- **Working with EPCglobal on designation of DoD UID as an EPC data construct**

> DoD will only accept EPC compliant technology

RFID Benefits in the DoD Supply Chain

- **DoD Business Processes**

  - **Facilitates Hands-Off Data Capture**

  - **Improves Data Accuracy**

  - **Enhances Asset Visibility**

- **Downstream Derivative Improvements**

  - **Optimizes Transport/Lift Utilization**

  - **Reduces Logistics Footprint**

  - **Improves Manpower Utilization**

  - **Improves Force Tracking**

  - **Improves Logistics Processing Time**

  - **Enhances Interoperability with Industry**

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Passive RFID Initial Implementations

- **Technical Demonstrations**
    - **Combat Feeding Global Asset Visibility demonstration**

- **Operational Implementation**
    - **FISC Norfolk Ocean Terminal**
    - **Individual Protective Equipment (IPE)**

- **Planned Implementation Projects**
    - **Strategic Depot to Operational Unit**
    - **Electronic Military Shipping Label (MSL)**

WHEN does Implementation take Effect ?

- **Active RFID – Operational; Implementation Continuing**

- **Passive RFID**
  - **DoD – Implementation underway now**
  - **Suppliers – Effective Jan 2005 for all new solicitations issued after October 1, 2004 for delivery of materiel on or after January 1, 2005.**

DoD Next Steps

- **POLICY**

  - **Drafting DFARS Clause – Apr 04**

  - **Publish revised RFID Policy – May 04**

  - **Complete analysis of RFID initial implementations – Jun 04**

  - **Publish Final RFID Policy – Jul 04**

- **IMPLEMENTATION**

  - **Publish proposed DFARS Rule for passive RFID – May 04**

  - **Issue final DFARS Rule – Sep 04**

    - *Solicitations issued after 1 OCT 04 for delivery after 1 Jan 05*

  - **Use EPC Compliant technology – Jan 05**

Industry Compliance Outreach

- **Industry Association Meetings**
  - **Meetings held Aug '03 and Mar '04**
  - **Quarterly meetings to be scheduled to discuss updates**
- **Summits**
  - **Scheduled as needed to continue dialog with suppliers**
- **Websites**
  - **Latest information available on:**
    - **www.dodait.com**
    - **www.acq.osd.mil/log/rfid/index.html**

Summary

- **Supporting *Current Operations* with Active RFID**

- **Implementing Passive RFID**

- **Finalizing EPC requirements**

- **Developing final policy**

Sets the foundation for future supply chain improvements…TODAY!