Unique Identification (UID) of Items
DoD Challenges¹

- Almost half of DoD’s $63.3 billion inventory as of September 2001 exceeds war reserve or current operating requirements
- DoD is unable to maintain adequate accountability over material shipped between contractors and DoD
- The services all experience operations and maintenance problems because of a lack of key spare parts, specifically aviation spares
- The services are not adequately monitoring, reporting, or getting reimbursement for defective spare parts received from contractors

¹ GAO-03-98 DoD Challenges
To implement a policy establishing a strategic imperative for uniquely identifying tangible items relying to the maximum extent practical on international standards and commercial item markings and while not imposing unique government data requirements.

Uniquely identified (UID) tangible items will facilitate item tracking in DoD business systems and provide reliable and accurate data for management, financial, accountability and asset management purposes.
The Department of Defense (DoD) established a joint international/industry/government Integrated Product Team (IPT) to achieve the following goals:

- Identify the UID data standard
- Develop a feasible and rapid implementation strategy

Initial four simultaneous efforts

- Policy development
- Standards definition & procedures
- DFARS case (regulations updates)
- Implementation planning
UID Role - Business Enterprise Architecture

- Improve Data Quality and Interoperability
- Enhance Total Asset Visibility
- Improve Life-Cycle Item Management
- Achieve Clean Audit Opinions on Property, Plant and Equipment &
Unique IDentification (UID) is ....

UID is . . .

... the set of data for tangible assets that is globally unique and unambiguous, ensures data integrity and data quality throughout life, and supports multi-faceted business applications and

<table>
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<th>EID</th>
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<td>Serial Number</td>
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UID Constructs

The components that make up the UID are identified in the table below. Each enterprise has two options for creating the UID.

<table>
<thead>
<tr>
<th>Based on current enterprise configurations</th>
<th>UID Construct #1</th>
<th>UID Construct #2</th>
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</thead>
<tbody>
<tr>
<td>If items are serialized within the Enterprise</td>
<td>Issuing Agency Code*</td>
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<td>Enterprise ID</td>
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Data Identified on Assets Not Part of the UID (Separate Identifier)

| Current Part Number | Current Part Number |

*The Issuing Agency Code (IAC) represents the registration authority that issued the enterprise identifier (e.g., Dun and Bradstreet, EAN.UCC). The IAC can be derived from the data qualifier for the enterprise identifier and does not need to be marked on the item.*
UID Interfaces

- Joint Financial Management Improvement Program (JFMIP)
- Planning/Systems Engineering
- DoD CFO Accountability
- Configuration Management
- Acquisition & Procurement
- Financial Management
- Industry

Other federal agencies; GSA, TSA, NASA

What items are needed? How are items marked? How is uniqueness assured?

What item am I buying? How do I buy the item?

How many items are there? How much are the items worth?

What items are available? Where are the items en route to a location?

How is the item located? How is the item transported? How is the item managed?

How is the tech data managed?

Industry

Operations & Deployments

Logistics/Materiel Management

Property Management

Joint Total Asset Visibility

What items are there? How are the items accounted for?
Final UID policy released on July 29\textsuperscript{th} established UID as a mandatory DoD requirement on all solicitations issued on or after January 1, 2004.

UID is required for all property items delivered to the Government if:

- Acquisition cost is more than $5,000
- Item is serially managed, mission essential, or controlled inventory piece of equipment or reparable; or a consumable item or material requiring permanent identification
- Item is a component of a delivered item and PM requires UID
- UID or DoD-recognized equivalent is available

Wide Area Workflow (WAWF) will be modified to capture UID and WAWF will be a mandatory payment requirement no later than January 1, 2005.
UID Policy Overview

- Approval of a new format code to ISO/IEC 15434 to allow Text Element Identifiers (TEIs) is required and being pursued.

- An interim DFARS rule for capturing the acquisition cost of tangible items and placing UID on them at acquisition was published on October 10, 2003.

- A DoD UID Program Management Office will be established to manage UID implementation.

- Specific guidance related to UID requirements can be found by referring to the following sources:
  - DFARS dated 10 October 2003
  - DoD Guide to Uniquely Identifying Items
  - www.acq.osd.mil/uid
Which Items Require a Unique Identifier

Start

- Item $\geq$ $5,000$?
  - NO: Is the Item Equipment?
    - NO: Is the Item Reparable?
      - NO: Is the Item Material?
        - NO: Is the Item a Consumable?
          - NO: Commercial Item Identification
        - YES: Permanent Identification Needed?
          - NO: Commercial Item Identification
          - YES: Changes Form in Manufacturing?
            - YES: Serially Managed?
              - NO: Controlled Inventory?
                - NO: Mission Essential?
                  - NO: Commercial Item Identification
                  - YES: Commercial Item Identification
              - YES: Commercial Item Identification
            - NO: Commercial Item Identification
      - YES: Changes Form in Manufacturing?
        - YES: Serially Managed?
          - NO: Controlled Inventory?
            - NO: Mission Essential?
              - NO: Commercial Item Identification
              - YES: Commercial Item Identification
            - YES: Commercial Item Identification
          - YES: Commercial Item Identification
        - NO: Commercial Item Identification
  - YES: Commercial Item Identification

Commercial item identification examples are the Universal Product Code and Health Industry Bar Code.
UID in the Supply Chain

**Product Data**
- **Prime**: End Item Specs
- Tier 1: Subassembly Specs
- Tier 2: Component Specs
- Tier 3: Part Specs

**Supply Chain**
- PN 200H0028
- PN 210H0611
- PN 216H1439
- PN 218H2861

**Unique Items**
- End Item Specs
- Spares
- End Item

**UID **
- UN194532636200H0028003896 (List of Hardware UIDs)
- UN040535536210H0611006392 (List of Hardware UIDs)
- UN080907280216H1439020890 (List of Hardware UIDs)
- UN083949107218H2861105742 (List of Hardware UIDs)

UID = Unique Identifier; EI = Enterprise Identifier; PN = Part Number; SN = Serial Number

* Serialized within the part number using DUNS

**UN = Issuing Agency Code for DUNS**

Optional:
**UID/ Logistics Outcomes**

- Comprehensive, timely data about each uniquely identified item throughout the supply chain
  - Generation, collection and analysis of maintenance data
  - End-to-end tracking and traceability of unique items
  - Reliability and maintainability information on each item throughout its life cycle

- Improved supply chain efficiency
  - Administrative cost reduction
  - Reduced stock levels
  - Simplicity, standardization, speed and certainty in automated data capture and electronic information exchange

- Integrated transportation and movement of individually identified items

- Leveraged commercial technologies and practices
UID Data Capture

◆ UID Capture
  - WAWF
    • Fixed price
    • Third party shipping
    • Cost type
  - Other collection scenarios
    • Reporting of embedded UIDs
    • Charge Card
    • Non-contractual acquisition
    • Internal DoD (Depot) marking
    • Other government agency marking

◆ UID Data Retrieval
  - DoD Registry development
  - Registry access rules
  - Use of third party UID-equivalent registries
## UID Data Capture Schedule

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<th>1FY04</th>
<th>2FY04</th>
<th>3FY04</th>
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UID “Pedigree”

Data

End Item Data (15)
- UID (Concatenated)
- Descriptive Data
  - UID Components (5)
  - Item Description
  - Unit of measure
- Acquisition Data
  - Contractor
  - Contract Number
  - CLIN/SLIN/ELIN
  - Price
  - Acceptance Code (identifies acceptor)
  - Acceptance Date
  - Ship to code

Embedded Items of End Items (10)
- UID (Concatenated)
- Descriptive Data
  - UID Data Elements (5)
  - Item Description
  - Unit of measure
- Parent UID as of delivery date
- GFP flag

Item Tracking (TBD)
- Current parent
- “As of” date
Interim UID Timeline

- **Jan ‘04**: Fixed Price End Item
- **May 03 ‘04**: Cost Type End Item
- **Jul ‘04**: Component s of End Items
- **Future**: Data Capture

**Fixed Price End Item**
- WAWF

**Cost Type End Item**
- Interim Solution
- 10/04
- WAWF

**Component s of End Items**
- Other (DID + XML?)
Valuation of UID CLINs

UID = Unique Identifier; EI = Enterprise Identifier; PN = Part Number; SN = Serial Number; **UN = Issuing Agency Code for DUNS

Supply Chain

Items Qualifying for UID

Item Markings

EI 19453263636
PN 200H0028
SN 003896*

Delivery to Govt
End Item

Item Markings

EI 040535536210H0611
SN 006392*

Delivery to Govt
Spares

Item Markings

EI 080907280216H1439
SN 020890*

Delivery to Govt
Spares

Item Markings

EI 083949107218H2861
SN 105742*

Delivery to Govt
Spares

UID ** Deliverables

UN194532636200H002800
3896
CLIN Valuation

UN040535536210H061100
CLIN Valuation if delivered separately

UN080907280216H143902
CLIN Valuation if delivered separately

UN083949107218H286111
CLIN Valuation if delivered separately

* Serialized within the part number using DUNS
Key DoD & External UID Stakeholders

DoD Stakeholders

• OSD
• All Services
• Joint Staff
• Defense Contract Management Agency
• Defense Logistics Information Service
• UK MoD

Industry Stakeholders

• Aerospace Industries Association (AIA)
• Government Electronics Association (GEIA)
• Uniform Code Council (UCC)
• Air Transport Association (ATA)
• Various AIT suppliers
• New York City Transit Authority
• UK Council for Electronic Business

UID background materials and actions items are available
www.acq.osd.mil/uid
UID Policy Implementation Timeline

Policy
✦ Final UID policy (Implementation effective Jan 2004) - July 2003
✦ RFID policy - October 2003
✦ UID Implementation for Contracts with Govt Furnished Property - Jan 2005

DFAR Cases
✦ Advanced Notice of Public Rulemaking released - May 2003
✦ Public Hearing - May 2003
✦ DFARS Rule Published in Federal Register - 10 Oct 2003
✦ Comments Due on DFARS Rule - 10 Nov 2003

ISO 15434 Change Request
✦ Finalize “New Work Item Proposal” - January 2004
✦ Gather change request support - ongoing
✦ ISO 15434 amendment issued - Jun 2005

WAWF Modifications
✦ UID Capability IOC - April 2004