IUID in the Supply Chain

Discrepancy and Deficiency Workshop
Ellen Hilert, DoD SDR System Administrator

April 27, 2011
Agenda

- Goals for today’s IUID Discrepancy/Deficiency Workshop
- Reporting Discrepancies via Supply Discrepancy Report (SDR) vs. Reporting Deficiencies via Product Quality Deficiency Report (PQDR)
- DoD WebSDR and DLMS Transaction Exchange
- Current Procedures
- Proposed Procedures
  - Report and Response Time Standards
  - SDR Distribution Rules
  - Overlapping Reporting Criteria for SDR vs. PQDR
  - Discrepancy Scenarios
- Way Ahead
Goals for Discrepancy/Deficiency Workshop

- Achieve consensus on new and expanded requirements for discrepancy and deficiency reporting upon integration of IUID within the supply chain
  - When is the Supply Discrepancy Report (SDR) process invoked?
    - What are the business rules, codes, and interfaces?
    - What are the time standards?
    - Are there near and/or long term implementation strategies available?
  - When is the Product Quality Deficiency Report (PQDR) process invoked?

- Agree to work together to advance this requirement in a standard, collaborative fashion

- Move forward to draft the necessary Defense Logistics Management System (DLMS) Changes where applicable

- Encourage Component ERP designers to begin thinking about future integration of new requirements
Reporting Supply Discrepancy via SDR
Reporting Quality Deficiencies via PQDR

- SDR appropriate reporting vehicle: upon receipt at wholesale storage location, upon receipt at retail/tactical storage location
  - Typical supply-related discrepancies include:
    • Shortage/Overage/Non-receipt
    • Wrong item
    • Supply condition not consistent with documentation
    • Mismatch between documentation and IUID received

- PQDR appropriate reporting vehicle: upon issue to end user, upon issue to maintenance, failure while in use
  - Typical quality-related deficiencies related to IUID include:
    • Incorrect placement of data matrix
    • Unsatisfactory application
    • Incorrect encoding of the data matrix
DoD WebSDR and DLMS SDR Transaction Exchange

- **SDR Transformation Initiative**
  - Transitioned mixed-environment to interoperable DoD Standard
  - DLMS-compliant process, set in motion by OSD in 2004

- **WebSDR architecture based upon Defense Automatic Addressing System (DAAS) hub for communication and centralized data management**
  - Eliminates the need for numerous point-to-point communications links
  - Transaction driven process eliminates the need to re-key SDRs within separate Component systems
  - Automatic e-mail reply to customer triggered by reply transaction eliminates action activity manual steps to print/mail/fax
SDR Processing and IUID
Current Procedures

- IUID-specific discrepancies related to the packaging label, including automated identification technology (AIT); the item marking, including AIT; supply documentation; the due-in record; and/or a mismatch between the item and any of the above
  - Elements which comprise unique identification are: UII and/or serial number

- Receiving activities are required to report discrepancies involving IUID for items under current Unique Item Tracking (UIT) program requirements or for new procurement items as contractually required under IUID program policy

- Concealed IUID discrepancies which result in incorrect information within the IUID registry must be reported via a SDR and corrective action taken
  - Concealed discrepancies applicable to IUID data are not subject to SDR time standards for reporting
Current Procedures - New Procurement

- Additional requirements for new procurement receipt process
  - Discrepancies identified during receipt of new procurement material must be reported concurrent with acceptance process, and may preclude acceptance
  - Material placed in a suspended condition pending resolution (suspend based on specific discrepancies)
Current IUID Specific Discrepancies

- Reporting criteria defined as:
  - Item unique identification on label missing, damaged or unreadable
  - Item unique identification on item missing, damaged or unreadable
  - Item unique identification on supply documentation missing, damaged or unreadable
  - Item unique identification not provided on shipping notice
  - Non-conformance to unique identification requirements under terms of contract
  - Multiple containers without separate unique identification data listings
  - Mismatch between item unique identification on item and label
  - Mismatch between item unique identification on item and shipping documentation
  - Mismatch between item unique identification on item and due-in or shipping notice
  - Mismatched or missing item unique identification discovered upon opening a sealed pack
  - Duplicate item unique identification

Notes:
*Red text identifies conditions requiring new procurement items to be suspended pending resolution
Proposed IUID SDR Requirements

- Expand business rules for communicating the UII/serial number to selected supply chain discrepancies involving IUID items: shortage, overage, wrong item, and misdirected shipments

- Component modernization efforts should integrate receiving and discrepancy reporting functions to facilitate capture of IUID via AIT
  - Systemically perpetuate UII on SDR from discrepant receipt in the scenarios
    - Require use of data fields vice remarks for UII/serial number identification
      - WebSDR currently supports up to 25 UIIs per SDR.
    - Which approach is most appropriate for SDRs: database vs. pass thru

- Set new timeframes for SDR processing based upon level of intensity
Current Report and Response Time Standards

- SDR procedures prescribe an expedited time standard for SDR submission and reply associated with Arms, Arms Parts, Ammunition, and Explosives
  - Report within 24 hrs. of discovery/Respond within 25 days
  - Applicable to: shortage/overage/non-receipt/misdirected/wrong item
  - CIIC used to recognize applicable materiel: classified or sensitive, plus pilferable codes associated with arms and ammunition

- Expedited processing expanded to include NWRM per your OSD memo (draft DoD 4140.01-M, Volume 11)
  - Criteria clarified to include selected UII mismatches
  - 24 hour reporting/24 hour acknowledgement w/15 day comprehensive response
Alternative Report and Response Time Standards

- Time standard breakdown by FLIS code for UID items: High/Standard
  - Expedited time standard linked to intensively managed item
  - Considerations:
    - Scope of items to be designated High not yet defined
      - Small arms/light weapons may not meet the definition
      - Current standard does apply to small arms/light weapons
    - Increase in volume could overwhelm Component personnel

- Apply time standard applicable to “High” for batch/lot controlled ammunition
SDR Distribution Rules

- Varies by Component policy and level of implementation today
- Policy will require UIIs designated as High to be maintained on the owner’s record
- Standardize distribution rules under long term implementation
  - Report
    • Action copy to shipping activity
    • Distribution copy to owner/manager
  - Shipping activity response
    • Action copy to owner/manager
    • Distribution copy to submitter
    • Distribution copy to other interested parties
  - Owner/manager response (if required)
    • Action copy to submitter
    • Distribution copy to other interested parties
Overlapping Reporting Criteria: SDR vs. PQDR

- **BLUF:** Overlap in reporting criteria allows customer flexibility and insures there is no gap in reporting requirements
  - Most significant overlap in reporting criteria is applicable to missing or unreadable IUID tag/data matrix
  - Submitter’s location and role in supply chain may contribute to selection of most appropriate reporting method
  - Focus is on reporting and resolution
    - Both provide feedback on contractor performance
    - Both allow the party responsible for discrepancy/deficiency to be held accountable
Discrepancy Scenario: IUID Mismatch/Missing (scenarios highlighted in red)

- **Required Action**
  - Identify discrepant quantity and discrepant UIIs received
  - New Procurement: Suspend mismatched items pending resolution
  - Stock Issue: Segregate mismatched items pending resolution

- **Submission Time Standard**
  - High (NWRM and Serially managed AA&E): 24 hours from discovery (U.S. & FMS)
  - Standard: 60 days CONUS/120 days Overseas from date of shipment/FMS LOA terms

- **Response Time Standard**
  - High (NWRM and Serially managed AA&E): 24 hours acknowledgment / 15 days research & reply
  - Standard: 55 days (30 days for Distribution Depot)

- **Interim Rules**
  - Use expedited processing time standards
  - If single item and no interface/AIT, inclusion of UII/serial number encouraged

- **Long Term Implementation**
  - Integrate receipt/SDR process, pass UII from receipt to SDR module
  - Automated IUID capture via AIT if subsequent to receipt
  - Revised SDR distribution rules
Discrepancy Scenario: Shortage/Non-receipt

- **Required Action**
  - Identify discrepant quantity
  - For shortage, identify *all* UIIs received

- **Submission Time Standard**
  - High (NWRM and Serially managed AA&E): 24 hours from discovery (U.S. & FMS)
  - Standard: 60 days CONUS/120 days Overseas/FMS LOA terms

- **Response Time Standard**
  - High (NWRM and Serially managed AA&E): 24 hours acknowledgement / 15 days research & reply
  - Standard: 55 days (30 days for Distribution Depot and FMS Total Non-Receipt)

- **Interim Rules**
  - Use expedited processing time standards
  - If single item and no interface/AIT, inclusion of UII/serial number encouraged

- **Long Term Implementation**
  - Integrate receipt/SDR process, pass UII from receipt to SDR module
  - Automated IUID capture via AIT if subsequent to receipt
  - Revised SDR distribution rules
Discrepancy Scenario: Overage

- **Required Action**
  - Identify discrepant quantity and **all** UIIs received
  - New Procurement: Suspend overage pending resolution
  - Stock Issue: Segregate overage pending resolution

- **Submission Time Standard**
  - High (NWRM and Serially managed AA&E): 24 hours from discovery
  - Standard: 60 days CONUS/120 days Overseas/FMS LOA terms

- **Response Time Standard**
  - High (NWRM and Serially managed AA&E): 24 hours initial / 15 days research & reply
  - Standard: 55 days (30 days for Distribution Depot)

- **Interim Rules**
  - Use expedited processing time standards
  - If single item and no interface/AIT, inclusion of UII/serial number encouraged

- **Long Term Implementation**
  - Integrate receipt/SDR process, pass UII from receipt to SDR module
  - Automated IUID capture via AIT if subsequent to receipt
  - Revised SDR distribution rules
Discrepancy Scenario: Wrong Item

- **Required Action**
  - Identify discrepant quantity and wrong item UIIs received
  - New Procurement: Suspend wrong item pending resolution
  - Stock Issue: Segregate wrong item pending resolution

- **Submission Time Standard**
  - High (NWRM and Serially managed AA&E): 24 hours from discovery (U.S. & FMS)
  - Standard: 60 days CONUS/120 days Overseas/FMS LOA terms

- **Response Time Standard**
  - High (NWRM and Serially managed AA&E): 24 hours initial / 15 days research & reply
  - Standard: 55 days (30 days for Distribution Depot)

- **Interim Rules**
  - If single item, inclusion of UII/serial number encouraged
  - If single item and no interface/AIT, inclusion of UII/serial number encouraged

- **Long Term Implementation**
  - Integrate receipt/SDR process, pass UII from receipt to SDR module
  - Automated IUID capture via AIT if subsequent to receipt
  - Revised SDR distribution rules
IUID Discrepancy Scenario: Misdirected

- **Required Action**
  - Identify misdirected quantity (if known) and misdirected UIIs (if known)
  - Segregate pending disposition instructions

- **Submission Time Standard**
  - High (NWRM and Serially managed AA&E): 24 hours from discovery (U.S. & FMS)
  - Standard: 60 days CONUS/120 days Overseas/FMS LOA terms

- **Response Time Standard**
  - High (NWRM and Serially managed AA&E): 24 hours acknowledgement / 15 days research & reply
  - Standard: 55 days (30 days for Distribution Depot)

- **Interim Rules**
  - If single item, inclusion of UII/serial number encouraged
  - Use expedited processing time standards

- **Long Term Implementation**
  - IUID capture via AIT
  - Revised SDR distribution rules
Discrepancy Scenario: Supply Condition not Consistent with Documentation

- **Action Required**
  - Identify discrepant UIIs received
  - New Procurement: Suspend discrepant item pending resolution
  - Stock Issue: Segregate discrepant item pending disposition

- **Submission Time Standard**
  - Standard and High: 60 days CONUS/120 days Overseas/FMS LOA terms

- **Response Time Standard**
  - Standard and High: 55 days (30 days for Distribution Depot)

- **Interim Rules**
  - If single item and no interface/AIT, inclusion of UII/serial number encouraged

- **Long Term Implementation**
  - Integrate receipt/SDR process, pass UII from receipt to SDR module
  - Automated IUID capture via AIT if subsequent to receipt
  - Revised SDR distribution rules
Discrepancy Scenario: Documentation (impacting receipt processing)

- **Action Required**
  - Identify discrepant quantity
  - If receipt cannot be processed:
    - New Procurement: Suspend discrepant item pending resolution
    - Stock Issue: Segregate discrepant item pending disposition

- **Submission Time Standard**
  - Standard and High: 60 days CONUS/120 days Overseas/FMS LOA terms

- **Response Time Standard**
  - Standard and High: 55 days (30 days for Distribution Depot)
Discrepancy Scenario: Packaging

- **Action Required**
  - Identify discrepant quantity

- **Submission Time Standard**
  - Standard and High: 60 days CONUS/120 days Overseas/FMS LOA terms

- **Response Time Standard**
  - Standard and High: 55 days (30 days for Distribution Depot)
Discrepancy Scenario: Quality-Related Receipt Notification

- “Piggy-backs” SDR transaction exchange to accommodate material owners with special programs requiring immediate visibility
  - SDR w/three-position Q Discrepancy Code provides notification of quality deficient (or potentially deficient) material received at a Distribution Depot

- Action Required
  - Identify quantity and UIIs received

- Submission Time Standard
  - Created at time of receipt

- Response Time Standard
  - 55 days

- Interim Rules
  - Pass UII from receipt to SDR module
Quality-Related Receipt Notification Discrepancy Codes

- Q11, Returned or stock screen item, PQDR exhibit deficiency
- Q66, Customer return or stock screen item failed under use
- Q22, New procurement receipt, customer return, redistribution order or stock screen item quality deficiency, contractual noncompliance
- Q33, Returned, redistribution order, or stock screened item suspected material deficiency (DLA Customer Returns Improvement Initiative (CRII) Program items only)
- Q44, New procurement receipt, customer return, redistribution order or stock screen item contracting deficiency, for specification and/or technical data deficient
- Q55, Item under investigation
- Q77, New receipt, customer return, redistribution order or stock screen item identified as a Critical Safety Item (CSI)
- Q99, New receipt item received for “First Article Test”
Way Ahead

- Assess and evaluate the feedback provided
- DLA Logistics Management Standards to draft Proposed DLMS Changes
- Components begin planning for integration of discrepancy reporting from within ERP in association with receiving functionality
- Component shipping activities begin planning for capability to reconcile Ull/serial numbers reported vs. Ull/serial number shipped
Backup Slides
IUID Basic Tenets - Marking

A compliant IUID Mark – Syntax & Semantics

• Using the syntax of ISO/IEC 15434, either of the three formats (TEIs, AIs, or DIs) can be used and Construct #1 (serialization within company), Construct #2 (serialization within Part/Lot/Batch) or DoD accepted equivalent are acceptable.

• This interoperability of formats permits enterprises to use their prevailing machine-readable marking processes.

• Resulting Unique Item Identifier (UII) is globally unique serial number

Formats:
ATA: Text Element Identifiers (TEIs)

\[R_s^{12G_sMFR \ 0CVA5\_S^{G_sSER\ \ 674A36458}\_R^{S_EO_T}}\]

GS1: Application Identifiers (AIs)

\[R_s^{05G_s800406141411A0B9C3D6}\_R^{S_EO_T}\]

MH 10.8.2: Data Identifiers (DIs)

\[R_s^{06G_s17V0CVA5\_S^{G_s1P1234}\_S^{G_s786950}\_R^{S_EO_T}}\]
Receiving Controlled Items by IUID UII (Distribution Depot & Retail Site) - Additional Business Process Requirements

1. When prompted, receiver uses AIT to collect UII(s) from outside of unit packaging* via PDF 417:
   1. Military Shipping Label
   2. Outside packing list (unclassified)
2. If UII prepopulated by ASN, the collected UIIs are systemically compared to the ASN UII
3. If UII(s) are not available on the exterior packaging, the receiver uses the UII in the ASN to place new label w/UII on packaging,
4. System will prompt user to indicate evidence of tampering/damage. If yes, then system will prompt user to open packaging to collect UII(s) from the item(s) and repackage by P&P.
5. If new procurement, there is an extra acceptance step for the receiver (WAWF)
6. If no UII in MSL or ASN and/or user finds UII mismatches, the system will prompt user to execute discrepancy instructions. (See Discrepancy Reporting Slides)

* Requires enforcement of MIL-STD 129 marking requirement (add to UID contract clause?) During transition period, if there is a serial numbered item, collect it and associate it w/appropriate UII on receipt

** If the package cannot be opened, see alternate procedures.
Receiving Items by UII from New Procurement (Distribution Depot) - Additional System Requirements

1. Receive advance UII data (i.e. 856) *(H, S)* (see Note 1)
2. Prompt user to collect UII(s) via AIT *(H, S)*
3. Based on business rules, e.g. evidence of tampering, user may collect UII(s) on the item *(H, S)*
4. Send 527R Receipt to ICP with UII data (ICP keeps track of UIIs by storage depot) *(H)* (see Note 2)
5. Notify WAWF of acceptance (e.g. 861 or direct WAWF web entry) *(H, S)* (see Note 3)
6. Store UIIs in warehouse mgt system *(H, S)*
7. When prompted by receiver, print new packaging label with UII(s) in PDF 417 format *(H, S)*

8. **If UII mismatches occur between advance UII data and UIIs received, system will prompt discrepancy actions** *(H, S)*

Note 1: H (High), S (Standard) = Notional FLIS IUID Designator Levels

Note 2: 527R includes UII(s) for all items received by supply condition, regardless of acceptance.

Note 3: 861 is sent with UII(s) for any partial quantity received and accepted. UII(s) are not sent for total quantity accepted or total quantity not accepted.
Receiving Items by UII from Redistribution Orders (RDOs) Materiel Returns Program (MRP) and Other Returns (Distribution Depot) - Additional System Requirements

1. Receive advance UII data (i.e. 856S (RDO) or 856R (MRP) (H, S) (see Note)
2. Prompt user to collect UII(s) via AIT (H, S)
3. Based on business rules, e.g. evidence of tampering, user may collect UII(s) on the item (H, S)
4. Send 527R receipt to ICP with UII data (ICP keeps track of UIIs by storage depot) (H)
5. Store UIIs in warehouse mgt system (H, S)
6. When prompted by receiver, print new packaging label with UII(s) in PDF 417 format (H, S)

7. If UII mismatches occur between advance UII data and UIIs received, system will prompt discrepancy actions (H, S)

Note: H (High), S (Standard) = Notional FLIS IUID Designator Levels
Below Wholesale Receiving Items Requisitioned – Received from Depot Stock – Additional System Requirements

1. Establish due-in based on requisition submission
2. Receive advance UII data based on 856S (H, S) (see Note)
3. Prompt user to collect UII(s) via AIT (H, S)
4. Based on business rules, e.g. evidence of tampering, user may collect UII(s) on the item (H, S)
5. Process receipt into below wholesale inventory with UIIs and store UIIs in warehouse mgt system (H, S)
6. Send 527R MRA to ICP with UII data (See alternative approaches) (H)
7. When prompted by receiver, print new packaging label with UII(s) in PDF 417 format (H, S)
8. If UII mismatches occur between 856S and materiel received, system will prompt discrepancy actions (H, S)

Note: H (High), S (Standard) = Notional FLIS IUID Designator Levels
Below Wholesale Receiving Items Requisitioned - Received from DVD - Additional System Requirements

1. Establish due-in based on requisition submission (see Note 1)
2. Receive advance UII data based on 856 (H, S) (see Notes 1 & 2)
3. Prompt user to collect UII(s) via AIT (H, S)
4. Based on business rules, e.g. evidence of tampering, user may collect UII(s) on the item (H, S)
5. Process receipt into below wholesale inventory with UIIs and store UIIs in warehouse mgt system (H, S)
6. Send 527R MRA to ICP with UII data (H)
7. For destination acceptance at Ship-to, notify WAWF of acceptance (e.g. 861 or direct WAWF web entry) (see Note 3) (H, S)
8. When prompted by receiver, print new packaging label with UII(s) in PDF 417 format (H, S)
9. If UII mismatches occur between 856/856S and materiel received, system will prompt discrepancy action (H, S)

Note 1: 856 needs requisition document number. Due-in needs to be updated for contract number provided via supply status.
Note 2: H (High), S (Standard) = Notional FLIS IUID Designator Levels
Note 3: 861 is sent with UII(s) for any partial quantity received and accepted. UII(s) are not sent for total quantity accepted or total quantity not accepted.
1. Receive update from depot of which UII(s) have been received (i.e. 527R Receipt) (H) (see Notes 1 and 2)

2. New Procurement Only - Receive update from WAWF for acceptance (i.e. 861 - see Note 3) (H)

3. ICP stores UII(s) by storage site on ICP inventory records (H)

Note 1: H (High), S (Standard) = Notional FLIS IUID Designator Levels

Note 2: 527R includes UII(s) for all items received by supply condition, regardless of acceptance

Note 3: 861 is sent with UII(s) for any partial quantity received and accepted. UII(s) are not sent for total quantity accepted or total quantity not accepted.