DEFENSE LOGISTICS AGENCY
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IN REPLY
REFER TO DLMSO

MAR 0 4 2004

MEMORANDUM FOR: SUPPLY PROCESS REVIEW COMMITTEE MEMBERS

SUBJECT: Proposed DLMS Change (PDC) 122, Unique Identification (UID) of Items and Radio Frequency Identification (RFID) in DLMS Shipment Status (856S) (Supply)

We are forwarding the attached proposed change to DOD 4000.25-M, Defense Logistics Management System (DLMS), for evaluation and submission of a single coordinated Component position. The interface requirement relating to this proposed change is shown to assist in your internal coordination. However, omission of such a requirement does not relieve you of the responsibility to assure full coordination of the proposal within your Component.

Request you review the attached proposed change and provide your comments/concurrence to DLMSO not later than **45** days from the date of this memorandum. If nonconcurrence is provided, please provide an alternate method to meet the requirement being addressed.

Addressees may direct questions to the DLMSO points of contact listed below. Others must contact their Component designated representative.

- Ms. Ellen Hilert, Chair, Supply Process Review Committee, 703-767-0676, DSN 427-0676, or e-mail: ellen.hilert@dla.mil
- Ms. Mary Jane Johnson, DOD MILSTRAP System Administrator and Chair, Unique Item Tracking Committee, 703-767-0677, DSN 427-0677, or e-mail: mary.jane.johnson@dla.mil.
- Ms. Vermella Savage, DOD MILSTRIP System Administrator, 703 767-0674, DSN 427-0674, or e-mail: vermella.savage@dla.mil.

James A. Johnson

JAMES A. JOHNSON
Director
Defense Logistics Management
Standards Office

Attachment

cc:
ADUSD(L)SCI
UITC
JSAG
JPIWG
LMI

Proposed Defense Logistics Management System (DLMS) Change (PDC) 122
Unique Identification (UID) of Items and Radio Frequency Identification (RFID)
in the DLMS Shipment Status (856S)

1. ORIGINATOR:

a. Service/Agency: Defense Logistics Management Standards Office (DLMSO)

b. Sponsors:

(1) Supply Process Review Committee, Chair: Ellen Hilert, DLA DLMSO (J-6411), 703-767-0676 (DSN 427), ellen.hilert@dla.mil

(2) Unique Item Tracking Committee (UITC)/MILSTRAP Chair: Mary Jane Johnson, DLA DLMSO (J-6411), 703-767-0677 (DSN 427), mary.jane.johnson@dla.mil

2. REFERENCES:

a. All DLMS Supplements listed in this memorandum are posted to the DLMSO web site at http://www.dla.mil/j-6/dlmso/elibrary/TransFormats/x12.asp. Federal Implementation Conventions are available at http://fedebiz.disa.mil/cgi/advsearch.cgi.

b. UII policy and associated documentation are available at: http://www.acq.osd.mil/UID/index.html.

c. DUSD AT&L memorandum dated February 20, 2004, subject: Radio Frequency Identification Policy – UPDATE.

3. FUNCTIONAL AREA: Primary: Supply

4. REQUESTED CHANGE:

a. Title: PDC 122, UID of Items and RFID in DLMS Shipment Status

b. Description of Change: This change updates the DLMS Shipment Status to carry UID information and passive RFID tag information. Since policy and procedures are not fully defined, this PDC is considered a planning tool for establishing techniques for accommodating UID and RFID tag data within transactional exchanges under the DLMS. As procedures are developed, additional DLMS changes will be staffed. This is provided as a first step in documenting changes which may be used to support business process improvements. Component system changes which are required to support the integration of the UII or RFID tag data requirements are not identified in this change.

(a) The revised shipment status structure provides the flexibility to identify the non-parsable UII value and each of its component elements separately. There will be a separate Hierarchical Level (HL)

loop for each item identified. The available data fields are: UII, serial number, enterprise identifier, original part number, current part number, batch/lot number, and UII type.

(b) The revised shipment status also provides the flexibility to identify up to three levels of packing to which an RF tag may be identified. Only those levels which are applicable are used in a given transaction. There will be a separate HL loop for each of the level. Available levels are: UID packaging; mid-level packing, e.g., carton, box; and highest level packing, e.g. tri-wall, pallet.

(c) A parent/child relationship may be established between the UID and the UID packaging level (to associate the UID item with the RF tag on its packaging). In addition, a parent/child relationship may be established between each of the packing levels (e.g., to associate which package is in which pallet).

(d) The field size of the UII has been subject to fluctuation; however, it is understood that the maximum will be at least 50 characters and at most 78. To allow for the longer length of the UII it is mapped to an ANSI text field (vice the shorter reference number field).

(e) The transaction structure will accommodate DLMS unique item tracking by serial number. This is a transitional requirement which may be employed until tracking by UII is implemented across DOD.

(f) This transaction is provided using ANSI Version 4030. The existing implemented 4010 version will continue to be supported until Components migrate to the higher level.

(g) The original 4010 structure was intended to permit multiple shipment status transactions to be included in a single 856S using multiple HL loops. The 4030 structure is intended to reflect only a single shipment status transaction. The ANSI transaction could support multiple transactions plus all the new HL loops for UID and RFID, but such a complex transaction is not desirable. All current implementations of the 856S use only a single HL shipment status loop.

(h) The 856S provides UID and RFID information applicable to the initial TCN. Consolidations and breakdowns of the shipment unit resulting in a new hierarchical (parent/child) relationship by TCN will be addressed separately. An 856A, Consolidated Shipment Notice, based upon the TAV/TAW transactions is under consideration.

c. Procedures: Modify DOD 4000.25-M, Defense Logistics Management System Manual as follows:

(1) Update DLMS manual front matter:

Terms and Definitions:

Enterprise Identifier (EID). An activity identifier code assigned to the entity that is responsible for assigning the unique item identification to an item. EID codes are uniquely assigned by a registration (or controlling) authority (e.g., Dun & Bradstreet's Data Universal Numbering System (D-U-N-S), Uniform Code Council (UCC)/European Article Number (EAN), Commercial and Government Entity (CAGE) code, NATO CAGE (NCAGE) Code.

Issuing Agency Code (IAC). The IAC represents the registration authority that issued the enterprise identifier. The value for the IAC is assigned by the Registration Authority for ISO/IEC 15459-2, Registration Procedures. The current Registration Authority of ISO/IEC 15459-2 is NEN – Nederlands Normalisatie-instituut. The IAC can be derived from the data qualifier for the enterprise identifier and does not need to be marked on the item or carried in the DLMS transaction.

Radio Frequency Identification (RFID). RFID systems consist of an antenna, a transceiver with a decoder and a transponder, typically called an RFID tag. Depending on the type of tag used, the RFID tag may contain a simple "license plate" uniquely identifying the specific tag, or it may be programmed with application-specific information. The antenna acts as a link between the tag and the transceiver. Often, the antenna is packaged with the transceiver and decoder to become a reader, also known as an interrogator. Interrogators can be handheld or fixed-mount devices. The reader decodes the data and passes that information to a computer for processing. The information can be used for a wide variety of inventory management or other identification applications through a central database.

Passive RFID tags have no on-board battery and they provide short communication ranges (1-5 meters). These tags have a low data bandwidth and cannot initiate communications, they must be read.

Semi-passive RFID tags have an internal power source for tag circuitry which allows the tag to complete functions such as monitoring of environmental conditions and which may extend the tag signal range.

Active RFID tags allow extremely low-level RF signals to be received by the tag and the tag (powered by its internal source) can respond by generating a high-level signal back to the reader/interrogator. Active RFID tags can hold large amounts of data, are continuously powered, and are normally used when a longer tag read distance is desired.

Unique Identification (UID) of Items. The application of a set of data elements that is globally unique and unambiguous, ensures data integrity and data quality throughout life, and supports multi-faceted business applications and users.

Unique Item Identifier (UII). An identifier used ~~in unique item tracking programs~~ to uniquely identify an individual asset used within DOD. ***The UII may be derived from a DOD-approved commercially-accepted identification methodology [e.g., Vehicle Identification Number (VIN)] or a composite structure defined by the DOD [refer to UID Construct 1 and UID Construct 2]. Formation of the UII relies upon two primary methods of serialization: (1) Serialization within the enterprise and (2) Serialization within the original part number of the enterprise. Regardless of which numbering system is used, the UII must include the Enterprise Identifier. Refer to OSD policy and supporting documentation for specific guidance at http://www.acq.osd.mil/UID/index.html. Refer to MIL-STD-130L for specific guidance marking of U.S. Military property.***

Unique Item Identifier (UII) Type. A designator that identifies the specific structure and syntax of a type of UII. Specific examples of the UII Type are: Vehicle Identification Number (VIN), UID Construct I (UID1), UID Construct I (UID2).

Unique Identification (UID) Construct I. This is a concatenated UII based upon serialization within the enterprise. The UII contains the IAC, EID, and serial number.

Unique Identification (UID) Construct II. This is a concatenated UII based upon serialization within the part. The UII contains the IAC, EID, original part number, and serial number. For legacy material, a subset of UID Construct II (referred to as Construct IIA) contains a batch, lot number, or other production run number required for uniqueness of the serial number within the part.

Acronyms and Abbreviations:

EID Enterprise Identifier

IAC Issuing Agency Code

RFID Radio Frequency Identification

UII Unique Item Identifier

UID Unique Identification

(2) Update DLMS Supplements. Mapping and associated notes for ANSI ASC X12 formats are identified at Enclosure 1. Changes will be applied to XML equivalent transactions.

(3) Update DLMS Chapters. Not available at this time.

5. REASON FOR CHANGE: OSD policy for the UID states that the Unique Item Identifier shall be the primary pointer or key data element for the AIS in all computational functions including inventory acceptance, item accountability, storage, issue, receipt, valuation, maintenance, and disposal. In support of this requirement, future logistics transactions must identify the UII. This change is required to incorporate the UII as currently defined within DLMS logistics exchange transactions and provide maximum flexibility. [Note: The UII is terminology currently carried in DLMS is comparable to the serial number, but does not equate to a UII under the new DOD definition since it lacks "uniqueness" when used alone. This change introduces the revised understanding of the term "UII."] OSD policy for passive RFID is being finalized. As currently defined the policy requires implementation of RFID for item packaging for items requiring UID and for all case/pallet (2^{nd} level packaging).

6. ADVANTAGES AND DISADVANTAGES:

a. Advantages: Supports implementation of UID/RFID policy within the supply functional area.

b. Disadvantages: None specifically identified; however, policy is evolving and additional changes may be required to modify or enhance the transactional exchange as outlined in this proposal.

7. IMPACT:

Publication(s): DOD 4000.25-M, DLMS, and 856S Federal IC and corresponding DLMS Supplement. Revisions to Federal ICs will be submitted to the EDISMC/Logistics Functional Work Group for coordination/approval.

Enclosure