

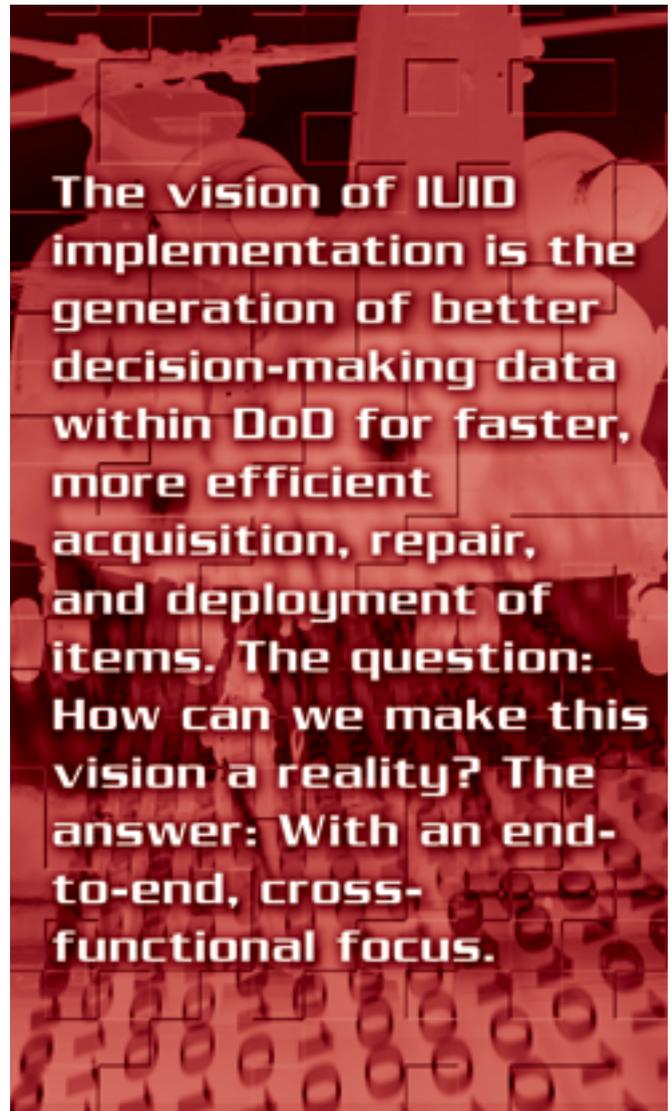
IUID: An End-to-End Look at Cross-Functional Relationships

Kimberly Meyer

Since its introduction in July 2003, the initial emphasis of item-unique identification (IUID) implementation has been on new acquisitions because of the myriad decisions to be made on a case-by-case basis: where to mark, testing and certification after marking, cost of marking and reading equipment, contracting implementation, and many other issues. However, now that the initial implementation processes are maturing for new items, it's time to take a more comprehensive look at integrating IUID requirements across the Department of Defense.

Recent IUID forums and policy documents have, in fact, expanded their focus to include the three main areas requiring IUID: new items, legacy items, and property in possession of the contractor (PIPC, formerly known as government-furnished equipment or GFE). A Feb. 6, 2007, policy update signed by Ken Krieg, former under secretary of defense for acquisition, technology and logistics, reinforces this expanded focus by placing emphasis on "sustaining momentum toward achieving paperless management of property in the possession of contractors in FY2007 and furthering depot planning and implementation." While these processes are receiving more emphasis, there is still little discussion of the three areas in relation to each other and the processes, initiatives, and functions impacting each area. This article relates the three key areas for an end-to-end, cross-functional perspective of implementing IUID on new items, legacy items, and PIPC. (The end-to-end concept is represented pictorially in a graphic available on the Acquisition Community Connection Unique Identification special interest area at <http://acc.dau.mil/iuid> > .)

The program manager is ultimately responsible for implementing IUID on Department of Defense programs, whether new items, modifications, or legacy items. When structuring a program to implement IUID, the PM must take a broader, cross-functional perspective of UID and look beyond how and where to mark an item. While the paths to implementing IUID for new and legacy items are somewhat different, there are many tasks in common that the PM needs to consider. Once items are marked, the culmination of IUID implementation is entry into the IUID Registry—but that is certainly not the end of the



process. Data and information contained in the IUID Registry must be fed back into multiple asset-management data systems across the Department. These systems, with the common data key of an IUID, will allow the PM insight into managed assets and will provide better data for decision making.

The vision of IUID implementation is the generation of better decision-making data within DoD for faster, more

Meyer is a professor of program management and business, cost, and finance at DAU. She is currently consulting on numerous IUID projects with the Office of the Secretary of Defense.

efficient acquisition, repair, and deployment of items. The question: How can we make this vision a reality? The answer: With an end-to-end, cross-functional focus. There are three key tasks common to new items or to modifications and legacy items at the depot that significantly impact the success or failure of IUID implementation within a program; they are the focus of this article:

- Integrated product teams (IPTs)
- Contracting for IUID
- Data entry into the IUID registry.

The Importance of Cross-Functional Involvement

IUID implementation is a very broad and complex initiative, and for successful implementation, the PM must have a team of dedicated, knowledgeable, functional experts to ensure all IUID requirements have been fully understood and incorporated. This IPT must include personnel from multiple functions such as program management, contracting, financial management, engineering, logistics, property, item management, and equipment management. The participation of all these functions is necessary so that no important areas are forgotten when planning for IUID implementation. Lack of cross-functional involvement in planning can have far-reaching consequences for the program and the Department as a whole—but in the end, it is the warfighter who bears the brunt.

What are some situations where lack of effective IPT involvement could lead to less-than-successful IUID implementation? One example is a poorly written contract that does not clearly lay out the IUID requirements for the contractor; another is a contract that can't be enforced when items are delivered improperly marked. If contracting personnel aren't brought into the team during the planning stages, it may be very difficult to construct the contract in the required format for IUID. When IUID was first implemented in the Department, many program offices followed the guidance and included the DFARS (Defense Federal Acquisition Regulation Supplement) clause in the contract but did not fully identify for the contractor the items they intended to be marked. When the contractor delivered the items at the end of the contract and they weren't marked, the government had no recourse but to accept them because the government's communication of requirements to the contractor had not been clear.

Another example (overheard at the February 2007 San Diego, Calif., UID Forum) described a problem reading the IUID mark after items were delivered to the government. The part in question required direct part-marking by etching to a particular depth. Following the etching, the part was then painted to enhance its structural integrity. Unfortunately, the required layers of paint were thicker than the depth of the mark, rendering it unreadable. If the government engineers had been involved in the up-front

IUID Reference Sources

UID Home Page: < www.acq.osd.mil/dpap/UID/ >

IUID Toolkit: < www.iuidtoolkit.com/ >

DAU IUID Special Interest Area:

< <https://acc.dau.mil/uid> >

Depot Maintenance UID Concept of Operations:

< www.acq.osd.mil/log/mrmp/UID_maintenance.htm >

planning for the item, the part-marking methodology could have been analyzed and adjusted so government funds would not have been spent to etch an item with a mark that subsequently couldn't be read.

Lack of cross-functional involvement can also lead to a less-than-optimal prioritization of items to be marked, causing scarce resources to be spent on marking items that may seem the easiest but don't return the greatest benefit to the organization. Cross-functional involvement can help mitigate such risks, and IPTs are a key tool to support that involvement.

Contracting: A Key Player

Effective contracting, our second key task, is integral to all three areas of IUID implementation, and a properly structured contract helps ensure the government receives the product or service it intended. A proper contract will include the DFARS clause 252.211-7003, "Item Identification and Valuation," to communicate contractual requirements to potential offerors. In addition to the inclusion of the appropriate clause in the request for proposal, contract structure is very important. Items requiring IUID have to be delivered on a contract line-item number (CLIN), sub-line-item number (SLIN), or exhibit line-item number (ELIN), or a combination of the three. CLINs, SLINs, or ELINs are established when the contract is structured prior to award and should be assigned to each type of item for which the government will take delivery. Prior to structuring the contract, the government IPT needs to fully identify which items will require marking, including those items with an acquisition cost over \$5,000; those under \$5,000 identified by the PM as requiring tracking; and those that are embedded subassemblies, components, and parts. Items under \$5,000 or embedded components will need to be identified.

Many contracts since the IUID requirement was implemented have not properly structured the CLINs, SLINs, or ELINs, and that leads to issues when items are delivered, particularly when invoices or acceptance are requested via wide-area workflow (WAWF). [WAWF is a system for performing electronic acceptance and invoicing on DoD contracts that provides a direct electronic feed to the

payment system as well as to other DoD applications.] In many instances, CLINs have been represented as “QTY/UNIT = 1 LOT” rather than “QTY/UNIT = 50 EA [each].” WAWF will allow items to be accepted as part of a lot and the lot’s IUID information recorded; however, unless there is significant manual intervention, the contractor cannot be paid until all the items in the lot have been delivered and accepted. This can cause concern for the contractor, but it can easily be avoided by following proper contract structure as outlined in DFARS 204.71.

In addition to ensuring contracts are structured properly, contracting personnel can contribute significantly to the IPT and success of IUID implementation by early involvement in strategy formulation. For example, an Army program that buys support using contractor logistics support—CLS—worked with the Office of the Secretary of Defense to identify a contract structure for CLS. The structure included an attachment of all items to be marked rather than a detailed listing in Section B of the contract. The team then worked with the contractor to keep costs to a minimum by having the parts marked as they entered the CLS warehouse instead of at every small business or subcontractor facility. Another example involved Army locomotives purchased by the Department of Transportation. After consulting with a contracting officer, the U.S. Army PM decided it would be more cost-effective to amend the solicitation and have the contractor mark the three-generator set of locomotives and major components with an acquisition cost greater than \$5,000 (axle, motor, etc.) rather than accept the items and then mark them as legacy items. Both of these examples highlight the importance of IPT involvement early in the process and of effectively structuring the contract to achieve desired results.

Data Delivery

Once the IUID requirement has been included on the contract or in the implementation plan, there are two main processes involved in implementation itself: item marking and delivery of item data. Delivery of data, our third key task in the end-to-end, cross-functional examination of IUID, is accomplished through the IUID Registry where all IUID data are captured and stored. The registry will contain information on new acquisitions as items are delivered and accepted, and on legacy items as they are marked. The registry is the repository of IUID information and will contain all the pedigree information on the item, including a description of the item, its original owner, its initial value at acquisition, whether any major modifications have been made, its serial and part numbers, acceptance information, and any embedded items.

Once items are marked, there are several data-entry methods. For new items, the primary method is through WAWF. Use of electronic invoicing was mandated by law in the 2001 National Defense Authorization Act, subse-

quently codified in DFARS 52.232-7004 and implemented contractually through the clause at DFARS 252.232-7003, “Electronic Submission of Payment Requests.” The DFARS specifically mentions WAWF as one of the accepted methods for electronically invoicing.

Though WAWF is the primary method for new procurements, it is not used by depot maintenance facilities marking legacy items and is still not used by all contractors; however, recent DFARS updates mandate its future use by all contractors. Those entities not employing WAWF can enter data into the IUID Registry through electronic data interchange input by direct electronic submission or manually via the UID Web entry site at <www.bpm.gov/iuid>. When marking legacy items at a depot maintenance facility, each Service has its own rules and processes for entry into the registry, and most use an interim system to collect data from the depot marking entities to then transmit to the registry. Once IUIDs are entered into the registry, the data will facilitate effective and efficient accountability and control of DoD assets and resources in support of DoD business transformation and warfighter mission fulfillment. The end goal is to enter data once and reuse them often, reducing the need to manually enter data in many different systems. As DoD systems move towards a more net-centric environment, the registry will

- Support life-cycle visibility for tangible items by integrating financial, maintenance, and accountability systems
- Enhance quality of information available for configuration management, systems engineering, logistics support, and operational planning
- Enable paperless management of DoD property.

We’re Not There Yet

By April 2007, over 1.3 million items had been entered into the IUID Registry, but there are many more items still needing to be marked and registered, particularly legacy items already in the Department’s inventory. Estimates place the total number of items requiring IUID marking at over 100 million.

A cross-functional framework is necessary for the successful implementation of IUID across DoD. We must bring in the right players, effectively structure contracts or statements of work for the depots, and enter data efficiently into the data repository. As you take the steps to implement IUID on your programs, you’ll find support and training on the IUID home page at <www.acq.osd.mil/dpap/UID/> and through other resources listed in the sidebar on the previous page.

The author welcomes comments and questions and can be contacted at kimberly.meyer@dau.mil.