

Headquarters U.S. Air Force

Integrity - Service - Excellence



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Overview

- **AF Steps for marking and registering**
- **AFEMS Solution**
- **IT Accomplishments**
- **Verification**
- **AF Vision Statement**



- **Vast majority of policy/guidance from DoD-level**
 - a) **Air Force-level policy directing implementation developing**
 - b) **HQ AFMC identified to lead planning for IUID coordinated with AFSPC and AFSOC**
 - c) **AFI implementation developing based on DoD directives and instructions on IUID**
- **Current Developments**
 - a) **DoD Instruction 4151.19 on SIM released 26 Dec 06**
 - b) **Effort underway to incorporate IUID, SNT, SIM, and AIT to AFI 63-101**
 - 1) **Draft AFI 63-101 released for coordination Jul 07**
 - 2) **Final version of AFI 63-101 anticipated to be published Nov 07**
 - c) **Latest IUID policy update released 6 Feb 07 refined requirements**
 - 1) **IUID weapon system program implementation plans required within 90 days of ACAT designation and annual updates for those previously completed**
 - 2) **Phased approach specified for select serially managed assets required to be entered into DoD IUID Registry starting 30 Sept 07**



Implementation Planning

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- **Status of Air Force IUID implementation plans:**
 - a) **Non-ACAT 1D reporting to OSD includes 'acquisition' only**
 - b) **Individual weapon system plans must address task of engineering analysis and physical application of UIIs**
- **Way forward is to coordinate list of Non-ACAT 1D plans between AF/A4ID, SAF/AQXA, and SAF/USAP**
 - a) **Consolidate by weapon system**
 - b) **Evaluate plans for content**
 - c) **Content will include list of items by NSN/part number meeting IUID criteria**
 - d) **Require annual update**



- Each item meeting IUID criteria must have engineering analysis performed
 - a) Determine marking location and method
 - b) Ensure safety concerns are addressed and marking does not affect original form/fit/function
- Significant up front cost to IUID implementation
 - a) Taking steps to streamline this process
- Currently prioritizing items based on identified lists of items meeting IUID criteria
 - a) Projected opportunity to mark
 - b) Bulk of items
 - c) Difficulty/impact of marking



UII Marking

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- **Consists of two activities**
 - a) Physical marking of 2-D barcode containing the UII
 - b) Registry of UII and associated data in AIS
- **Physical marking of 2-D barcode - two methods**
 - a) New acquisition implemented by DFARS clause 252.211-7003
 - b) Opportunistic marking of legacy assets as cycle through maintenance, repair and overhaul activities
 - 1) Depot MRO viewed as most significant opportunity
 - 2) CIRFs and other intermediate repair activities may be needed to hasten
 - c) Managed by Triad software
- **Registry occurs by transmitting to DoD IUID Registry**
 - a) AIS connection from asset marking activities using Triad software still under construction (Sep 07 completion)
 - b) Will include collection of data in Air Force Serial Database (AFSDB) and merger with data from Data Services



UII Reading

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- **Uses automatic data capture during supply chain events**
 - a) **Preliminary analysis identified generic 'Touchpoints'**
 - b) **Includes transactions based on acquisition, inventory/supply, transportation, maintenance, and disposal**
- **Current and future focus**
 - a) **Leverage existing and developing Automatic Identification Technology initiatives and implementations**
 - b) **Require AIT using organizations to budget through POM process for barcode reading capabilities**
 - c) **SNT/UIID project office will continue to involve AFMC organizations, HQ USAF/A4, and MAJCOMs**



Serialized Item Management

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- **Represents end-state**
 - a) **Total asset visibility on high-value and high-impact assets**
 - b) **Ability to manage assets by NSNs as a discrete individual population in SIM or as multiple populations in SAM**
- **Requirements**
 - a) **Data collection at supply chain ‘touchpoints’**
 - b) **AIS to store data**
 - c) **Graphical user interface (‘dashboard’) to allow manipulation and integration of data for use in decision processes**
- **Air Force Common Operating Picture (AF-COP) represents early iteration of ‘dashboard’ based on static historical data**



- **All DoD is required to uniquely identify tangible items**
 - a) The Chief Financial Officers (CFO) Act of 1990 requires complete, reliable, timely, and consistent information for better management of assets
 - b) The acting Under Secretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)) issued policy to uniquely identify tangible items
 - c) HQ USAF/A4 directed HQ AFMC/A4 to initiate Serial Number Tracking (SNT) as part of eLog21
- **OSD mandated milestones All items marked and entered into registry by 31 Dec 2010**
- **~5.2M AF Equipment items (AFEMS) next in marking process**
- **AFEMS pilot project marking ~25K assets at WPAFB**
 - a) Marking scheduled to begin at WPAFB mid February 08
 - b) Lasts approximately 43 work days
 - c) Initial WPAFB effort plots the course for global implementation
- **AFEMS project executed AF-wide by prioritized, geographical region**



■ **~5.2M Assets**

a) Will not have data label:

- 1) 71K – vehicles (UII equivalent)
- 2) 619K – small arms (direct part mark)
- 3) 391K – equipment in storage (virtual UII)

b) Anticipated to have data label: (78%)

- 1) 140K – cryptologic equipment
- 2) 38K – capital equipment
- 3) 1.4M – non-capital equipment
- 4) 2.2M – automated data processing equipment



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- Purpose
 - a) Leverage “economies of scale” utilizing mass produced standard labels
 - b) Target “low hanging fruit” (i.e. easiest marks first)
 - c) Enable “seek and mark” strategy

- Benefits
 - a) Aggressively achieve “critical mass” of parts marked
 - b) Free organic maintenance resources to focus on core area of expertise
- Phased strategy approach

Bottom Line: Aggressively achieve “critical mass” of assets marked



■ **Phase 1:**

- a) Air Force Equipment Management System (AFEMS) pilot project marking approximately 25K assets at WPAFB.
- b) Assists in defining processes, responsibilities and rules for extracting asset data from AFEMS
- c) Outlines utilization of base equipment managers and custodians for direct part marking.

■ **Phase 2:**

- a) Execute AFEMS project by prioritized, geographical region
- b) Produce and ship data labels for approximately 5.2M assets



■ **Phase 3:**

- a) “Seek & Mark” strategy targeting easily accessible groups of assets tracked in other systems, regardless of type or location

■ **Phase 4:**

- a) Implement process for outsourced label production
- b) Conduct process review at each Air Force Maintenance facility
- c) Integrate “Just in time” label placement into current maintenance processes

Opportunistic cart-based marking will continue



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(18S) CAGE + S/N

(17V) OEM CAGE

(30P) Part Number

(20S) AFEMS#



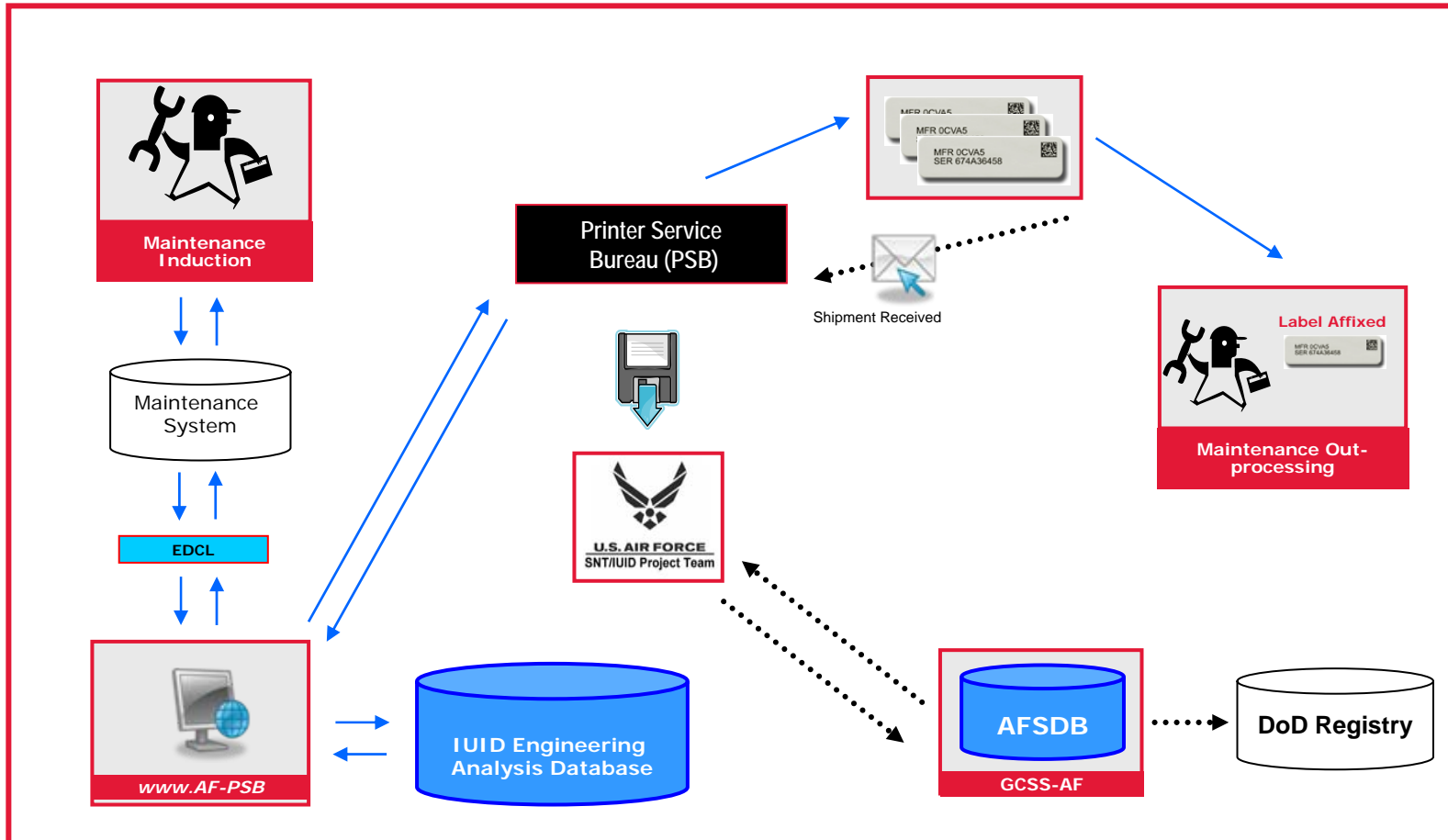
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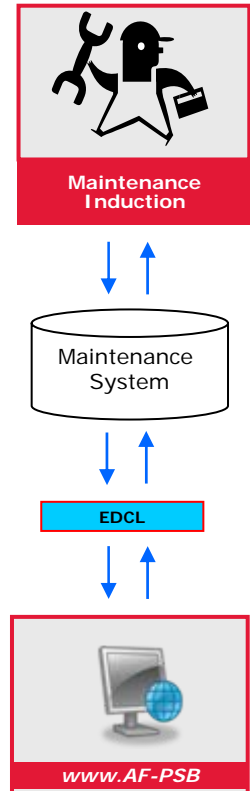


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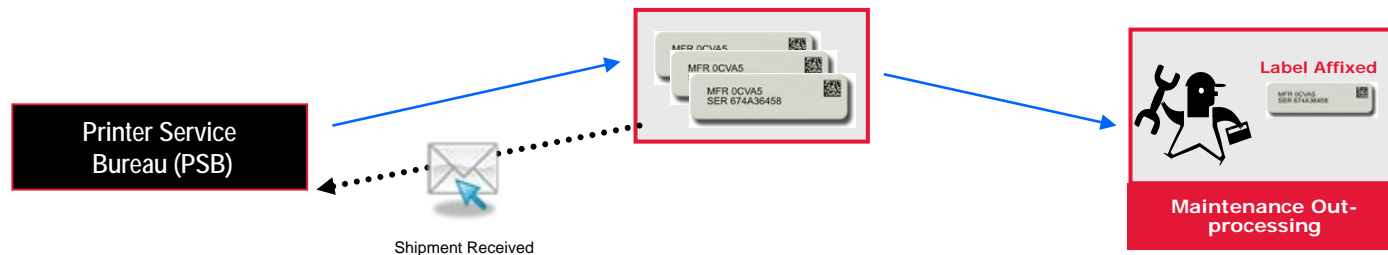
1. User visits dedicated website to view AF IUID guidance and ordering instructions
2. User requests username and login (role-based login)
3. User downloads spreadsheet template of required data elements (AFSDB compliant)
4. User completes & uploads a separate spreadsheet for each custodian
5. User enters contact information & shipping instructions for each custodian





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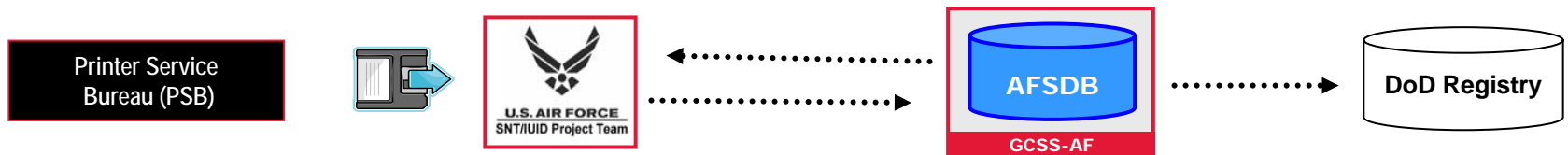
6. PSB sends user(s) & custodian(s) e-mail confirmation and instructions
7. PSB sends each custodian a package containing standard labels, policy letter, instruction sheet, item checklist, and return envelope
 - a) Custodian labels items during next scheduled inventory
 - b) Labels for items not located (or requiring alternate label) are placed on checklist sheet with comment and returned to PSB
8. PSB scans returned labels and deletes item data
9. PSB ships custom order labels for items requiring alternate labels





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10. PSB tracks each custodian shipment to ensure compliance (sends e-mail reminders)
11. PSB submits clean data to Project office (AFSDB compliant format)
12. Project office e-mails flat file to AFSDB administrator (BearingPoint) for upload





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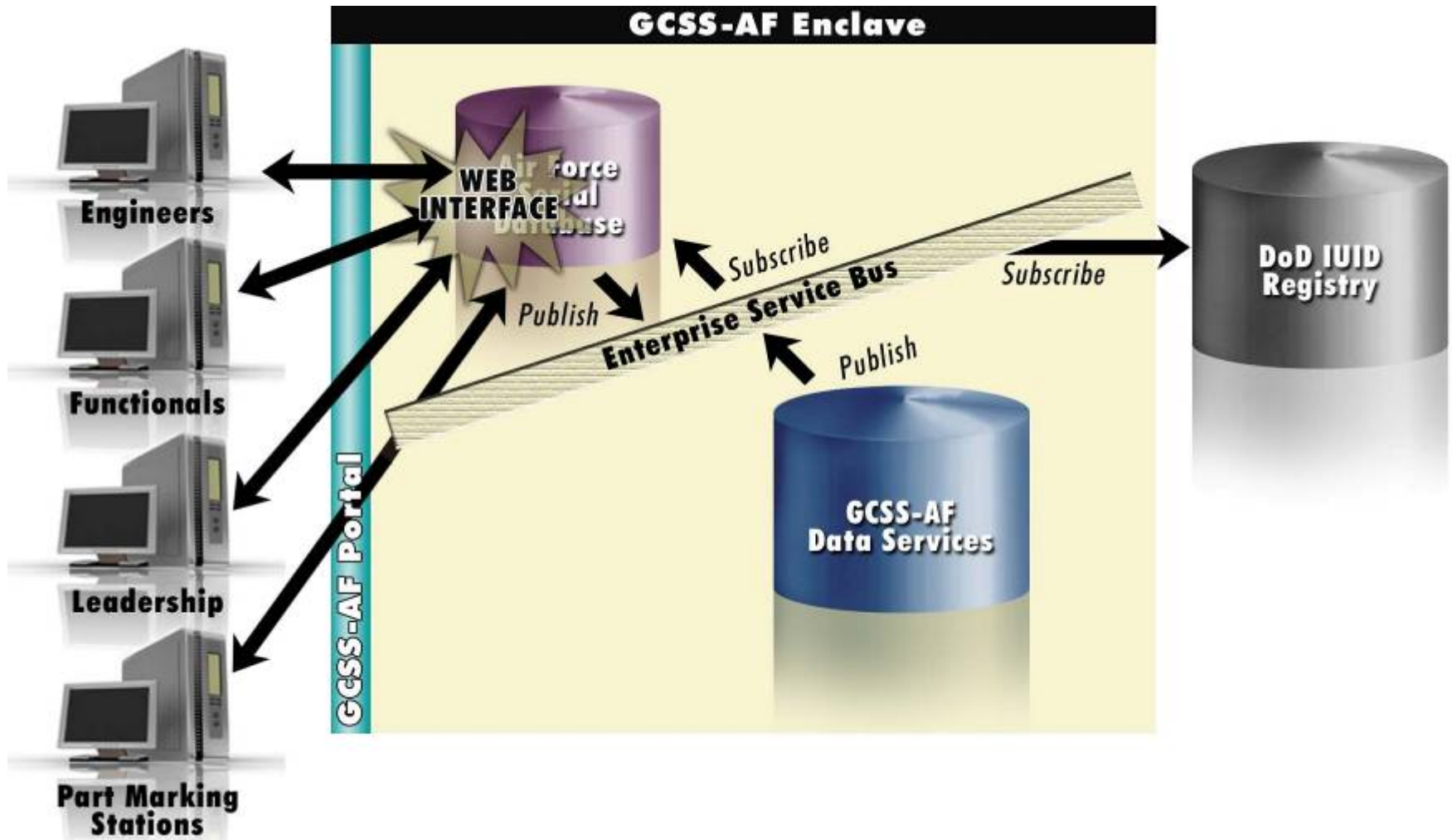
Streamlined Data Entry

- **Obtain the needed data for verification and engineering analysis from GCSS-AF Data Services and store within AFSDB**
- **Cross reference part marking stations based against candidate pools within the engineering data**
- **Submit only the minimal identifying data**
 - **Verify part identity**
 - **Keep Data Entry Clean**



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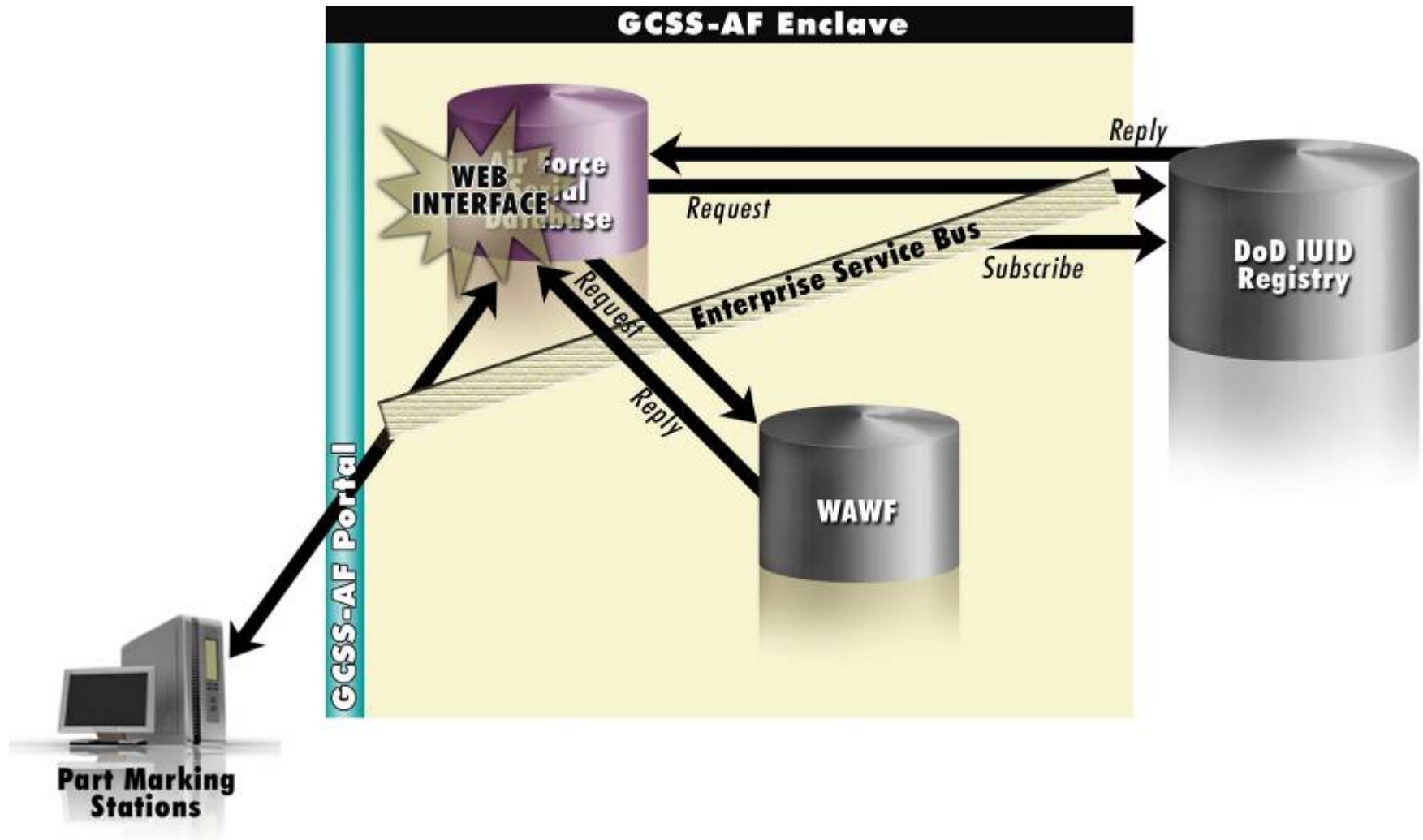
Web Based Architecture





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Improved Verification





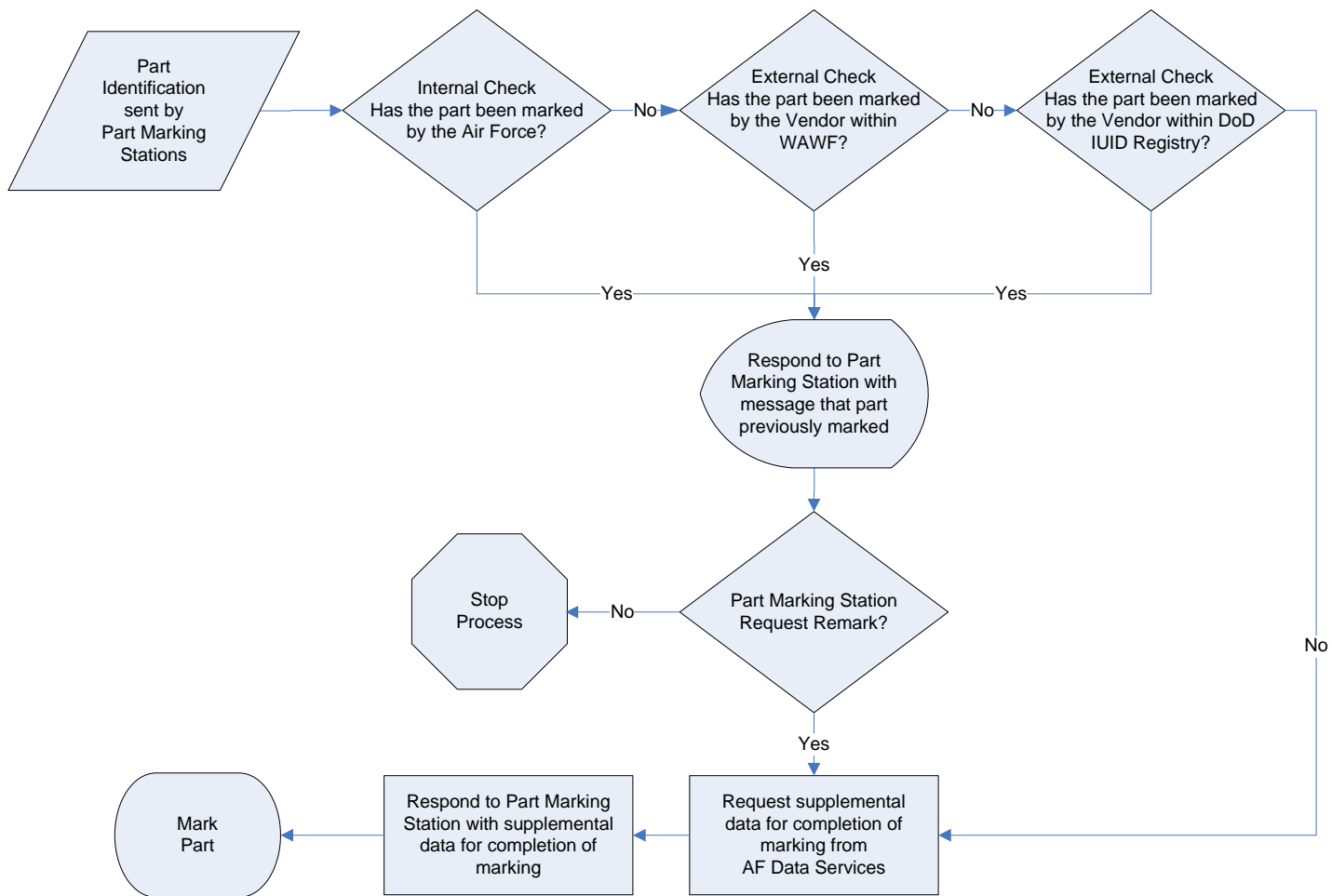
Improved Verification

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- **Failure to Load Response**
 - **Working with DoD IUID**
 - **Caused by Duplicate/Missing Data and Changes in schema**
 - **Reporting back to AFSDDB – currently no automation in place within DoD IUID**
- **Expansion of AF inventory systems**
 - **REMIS and FLIS (DLA Supply)**
- **Visibility into Procurement Parts**
 - **Currently blind to OEM marked parts appearing for remark**
 - **Procured parts**
 - **Contract Line Items Number parts entered into Wide Area Work Flow**
 - **Embedded item parts entered directly into DoD IUID Registry**
- **Utilization of Web Services to obtain verification**
 - **Request and Reply**
 - **Active logic for instance specific data need**
 - **Point in time references with small batch, quick return data**



Improved Verification





IT Accomplishments to Date

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- **AFSDB Migration Activities:**
 - Preparation of DB for migration
 - Implementation of “Super Island Mode”
- **Release of Triad Upgrade**
 - 18S Marking Construct Implementation
 - Super Island Mode with back-up capability
- **Security Upgrades**
 - Installation of Internal Router on Cart PCs
 - Solution to Verifier Camera Concerns
 - Update to security documentation resubmit through process
 - Implementation of AF Standard Desktop*
 - Implementation of CAC Authenticated Login*
- **Platform Upgrade**
 - Upgrade to SQL 2005

*To be implemented upon reconnection to network



- **Reporting to the DoD IUID Registry**
 - **Aircraft direct registry**
 - **Over 9,000 aircraft managed by AF have been registered**
 - **Air Force Serial Database**
 - **Lockheed Martin task**
 - **Scheduled for completion 30 Nov 07**
 - **Utilizes AF Serial Database (AFSDB) presence within GCSS-AF Enclave**
 - **Employs the GCSS-AF Enterprise Service Bus (ESB) for XML based communication between systems**
 - **New connection between AFSDB and GCSS-AF Data Services**
 - **New connection between AFSDB and DoD IUID Registry**
 - **Obtains D043 data for verification and addition of legacy attributes**



- **The next steps in maturing the capability**
 - **Migration into a web based design**
 - **Streamlines access and visibility into data**
 - **Expands utilization of GCSS-AF services**
 - **Improved verification process**
 - **Employ web services to verify uniqueness against procurement data**
 - **Streamlined Data Entry**
 - **Only identifying data is needed for entry**
 - **Capitalize on enterprise availability of data**
 - **Enterprise reporting via GCSS-AF Data Services**
 - **Predefined reporting through dashboards**
 - **Ad hoc reporting via data mart specific to the needs of SNT/UIID**



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Vision Statement

Find It-Mark It-Use It or Lose It!!!

Uniquely identify, mark, and register 100% of Air Force equipment items by 2010. This innovative approach will provide internal and external customers improvements in accountability, financial reporting, and position equipment data for migration to Expeditionary Combat Support System (ECSS).

