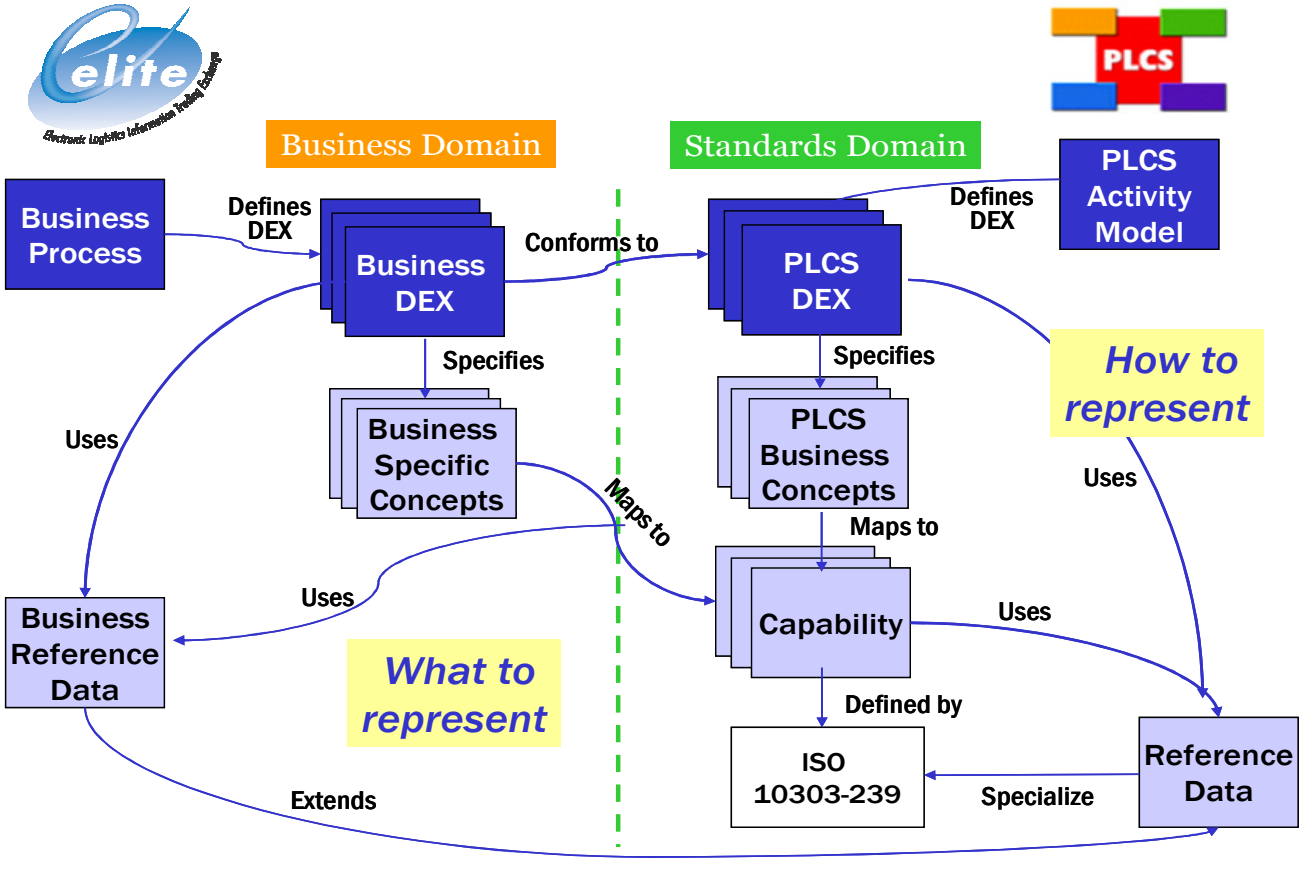
IUID Item Unique Identification

Joint Maintenance Acquisition Data Sharing: Product Life Cycle Support

Unique Identification Policy Office Integration Project



To improve the identification, tracking, and management of Department of Defense (DoD) assets, the Office of the Secretary of Defense has funded multiple projects, including the Joint Maintenance Acquisition Data Sharing: Product Life Cycle Support Integration Project.

Description

The Joint Maintenance Acquisition Data Sharing (JMADS) project applied the ISO10303 AP239 Product Life Cycle Support (PLCS) model to the production phase of the Electronic Logistics Information Trading Exchange (ELITE) with NAVAIR, Army Aviation, and Sikorsky Aircraft using the Aviation Maintenance Data Exchange (AVDEX) to transfer delivery and maintenance data.

This network served to support the development of a capability to automate the exchange of maintenance-related data including Unique Item Identifiers, operational usage information, and maintenance history in order to advance data management and further the DoD goal of implementing a shared, integrated digital-data environment.

Achievements

The ELITE program was conducted in independent, synergistic phases. The first phase was performed from March 2005 to July 2006 as a proof of concept and an operational demonstration. Phase 1 applied the Enterprise Interoperability Framework and associated methodologies based on emerging commercial best practices and commercial tools.

This phase defined a shared data environment for the exchange of weapon systems acquisition data for the logistics support environment and demonstrated the automated electronic exchange of maintenance record data among multiple active participants, including: prime contractor Sikorsky Aircraft (SAC), the Army Maintenance Management System – Aviation (TAMMS-A) Sustainment environment located at the Aviation and Missile Command (AMCOM), and NAVAIR's LITMUS Lab Optimized Organizational Maintenance Activity Oracle Top Tier 3 staging tables. The H-60 was the chosen prototype weapons system.

Initial development focused on the Direct Exchange of aviation maintenance data from the Army's Component Removal and Repair/Overhaul Record (DA Form 2410) and was further expanded to include data mapping of log books in preparation for full Navy implementation. Maintenance data exchanges were enabled by using the PLCS data exchange model.

ELITE testing was conducted among AMCOM, NAVAIR and SAC from 20 June to 22 June, 2006 in order to demonstrate the technical capability of the system to exchange valid data. The testing consisted of:

- 1,975 transactions sent from AMCOM to both NAVAIR and SAC
- 1 transaction sent from SAC to both AMCOM and NAVAIR
- 17 transactions sent from NAVAIR to SAC

Data was successfully exchanged among AMCOM, NAVAIR, and SAC. The test results supported the decision to proceed to production.

Challenges & Obstacles

Challenges for this project included:

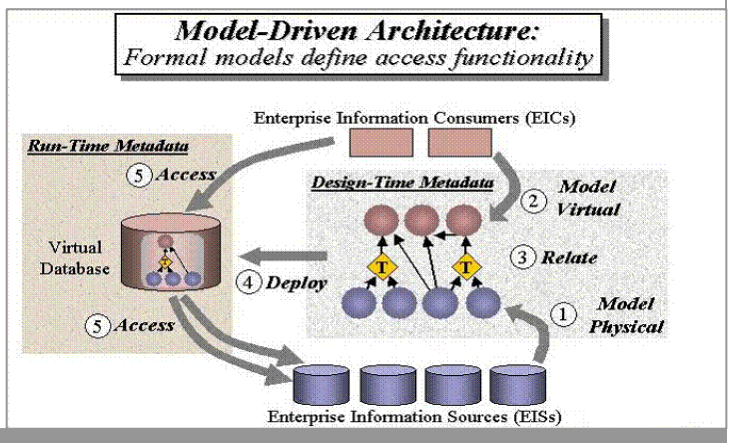
- Difficulty acquiring FAM and NMCI approval for this application and associated tool sets
- Requirements needed further clarification and sufficient lead time to re-establish and maintain network connection for LITMIS Lab testing
- Issues occurred with the interface code resulting from the initial ELITE operational demonstration

Benefits

The ELITE program harnesses the advantage of using an international community standard for data exchange, which allows the services and industry to continue the use of existing data systems and at the same time exchange data between currently disconnected and incompatible systems.

The ELITE initiative was built on an XML-based framework that provides a network where Unique Identification maintenance information is shared freely across organizations. This capability produces resultant gains due to re-engineered business functions, increased availability to accurate, timely data, and greater use of automated tools.

ELITE specifically addresses maintenance data exchanges that are currently not automated, replacing each paper-based exchange with a fully automated process, reducing labor burden and producing enhanced capability.



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IUID

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