

JCALS

Joint Computer-Aided Acquisition and Logistic Support

System Description

The Joint Computer-aided Acquisition and Logistic Support (JCALS) system is a Shared Data Environment for exchanging digital information between the Joint Services and other Department of Defense (DoD) agencies. JCALS provides an Information Management System (IMS) to support DoD business areas, particularly weapon systems, throughout their entire life cycles.

Some examples of JCALS applications follow:

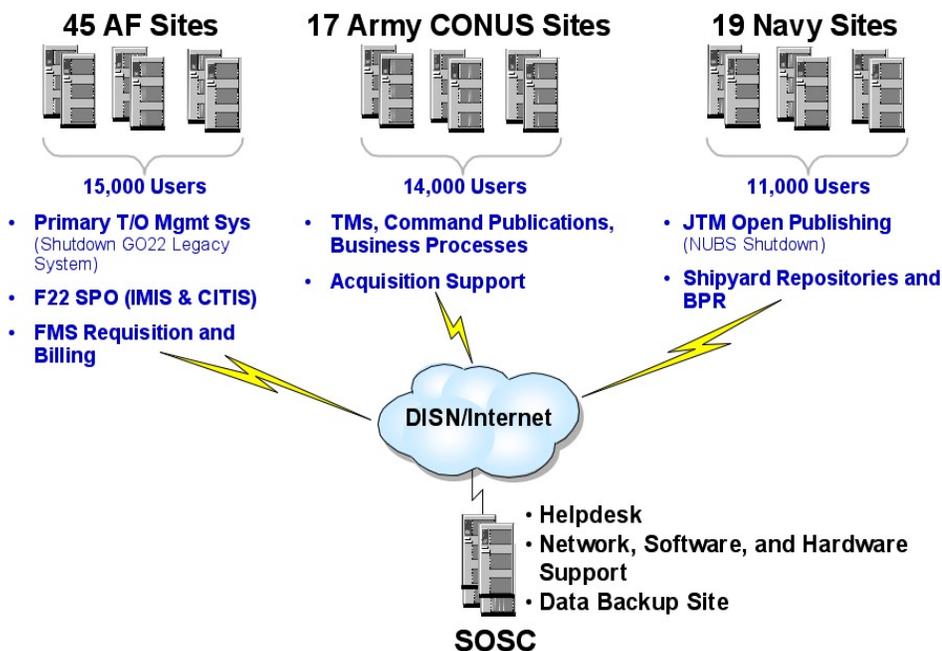
- **Technical Manuals (JTM):** The JCALS project provides for the management, acquisition, improvement, publication, stocking, and distribution of electronic Technical Manuals. The conversion of Technical Manuals to electronic format has saved an enormous amount of paper — over 100 tons of printed manuals in the case of a single aircraft carrier!
- **Joint Electronic Folders (JEF):** The JEF creates a paperless operating environment for acquisition and logistics functions. The JEF allows users to organize their documentation into Acquisition Item Electronic Workfolders, thereby enhancing productivity by reducing acquisition lead-time specific to the contracting and provisioning processes within the Acquisition Life Cycle.
- **Product Data Management (PDM):** JCALS currently supports transparent integration of Autotrol's CENTRA 2000 PDM. Thus, the JCALS user gets the added functionality of the PDM within the framework of the system he or she already knows. The flexibility of the JCALS infrastructure allows for the integration of the most useful aspects of new PDM applications while subsuming redundant functionality.

Electronic Invoicing (eDD250): The DD250 Inspection Report is used to ensure that equipment is shipped in the proper condition and quantity. Errors in filling out this form can hold up delivery. To increase the efficiency of the process, a Web-based electronic form, the eDD250, was created. Errors and omissions are now detected automatically by the application. Digital signatures ensure that authorized personnel have reviewed the form and that the form can be tracked electronically through each stage of delivery.

JCALS Infrastructure

JCALS is built on a standards-driven, scalable, Open System Architecture, which consists of automated data processes, as well as network hardware and application software. It provides support for logistics, acquisition, engineering, manufacturing, configuration management, materiel management, and other life cycle processes. At the heart of the infrastructure is a Global Data Management System (GDMS), the middleware connecting JCALS users with legacy data repositories. Data residing in the JCALS system, or in any system with which JCALS interfaces, is transparently available to JCALS users.

JCALS Enterprise



Workflow

JCALS provides a flexible, enterprise-wide Workflow Management capability that allows the user to define, activate, and monitor ad hoc jobs and business processes. Workflows share data between workgroups and allow key personnel to be notified of upcoming jobs well in advance. They also capture business processes for automation, metrics, maintenance, and improvements. The JCALS Workflow Manager automatically provides users with the documents and application functionality they need and allows administrators to track the status of workflow processes.

Hardware/Software

The JCALS system is based on commercially based client-server architecture. Personal Computers with client software are used as the user interface to the system. The supporting servers are predominantly Hewlett Packard mid-tier computers. The system's functionality is based on over 100 commercial products. The Global Database Management System (strong middleware) and workflow manager comprise the principal developed software system components.

Telecommunications

The JCALS system employs Local Area Networks/Campus Area Networks locally, and the Defense Information Systems Network (DISN) for wide area communications.

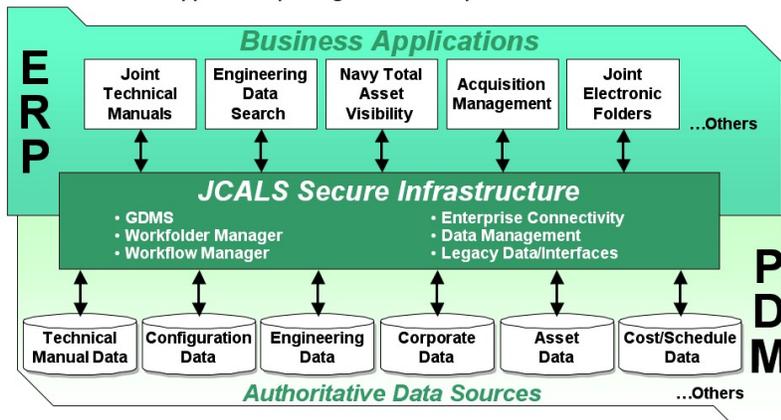
Security

JCALs is an operational Evaluation Assurance Level 3 compliant system that handles sensitive but unclassified acquisition and logistics data.

Benefits

The chief benefit of JCALS is increased productivity and efficiency, resulting from the use of an Open System Architecture, Common User Interfaces, automated Workflow Management processes, elimination of redundant systems, and the inherent flexibility of the JCALS architecture. Also, electronic communications eliminate most of the cost, bulk, and time delay of traditional paper mail. JCALS thus reduces both the cycle time and the cost required to move weapon systems from the factory to the field.

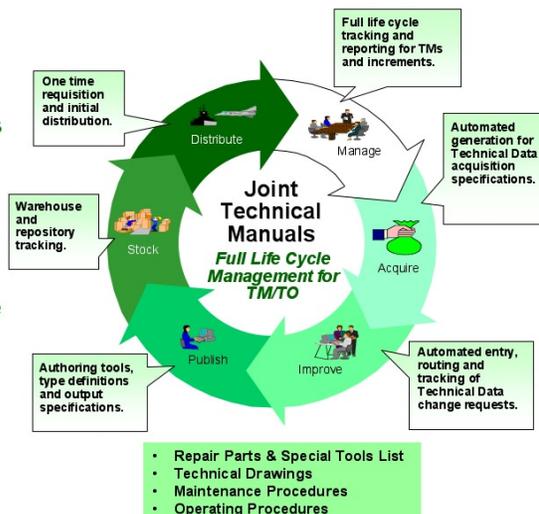
JCALs is Built to Support Multiple Logistics and Acquisition Business Processes



JCALs delivers technical data within the DoD community

JCALs Business Applications: Joint Technical Manuals (JTM)

- JTM provides a standards-based capability to manage the life-cycle of technical information in a paperless environment
 - Supports both weapon system acquisition and logistics life cycle processes
- JTM helps make accurate and timely information available to all participants in the logistics support chain -- at the right time, and in the right place



- Repair Parts & Special Tools List
- Technical Drawings
- Maintenance Procedures
- Operating Procedures

Fielding Status

While fielded at approximately 110 sites, a subset of 81 sites in the Army, Navy, and Air Force comprise the JCALS enterprise that permits the transparent sharing of data among approximately 40,000 users with active accounts. The JCALS system is not physically located on the battlefield; however, it directly supports the war fighter by ensuring that current, accurate technical data about weapon systems is available for training and mission accomplishment. The JCALS infrastructure and JTM capabilities currently exist in depots, shipyards, air force bases, inventory control points, major commands, arsenals, and installations in the Army, Navy, and Air Force.

Project Manager Logistics Information Systems (LIS)
COL David Coker, QM

Assistant Project Manager JCALS
Mr. Thomas Sepka

DEPT OF THE ARMY
ASSISTANT PROJECT
MANAGER JCALS
ATTN: SFAE-PS-RS-JCL
BLDG 2700, Room OA418
FORT MONMOUTH, NJ 07703

TEL: COMM: 732-532-0400
DSN: 992-0400
FAX: COMM: 732-532-0403
DSN: 992-0403

www.pmlis.lee.army.mil
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