U.S. Army Logistics Process Automation Based on SAP NetWeaver Technology

Thomas R. Gulledge
George Mason University

Greg Huntington
Enterprise Integration, Inc.

Wael Hafez
IDS Scheer, Inc.

Georg Simon
IDS Scheer, Inc.

Summary

The Army logistics system is a complex series of processes, organizations, doctrines, procedures and automated systems. Historically, the system has been separated into two management levels: wholesale, which typically includes Army Materiel Command (AMC), Defense Logistics Agency (DLA), and the industrial base; and retail, which includes all customer organizations at theater and below. Doctrinally, however, the system is segregated into three levels: strategic, operational, and tactical. In recent years, decisions have been made to enable these domains using commercial standard software whenever appropriate. This paper describes an architectural planning approach for designing a standard software solution that combines the two management levels of Army logistics.

Key Words

Logistics, Enterprise Architecture, Standard Software, ERP, SAP, Public Sector, NetWeaver, Master Data Management
1 Project Background

The Army enterprise vision is "A fully integrated environment that builds, sustains, and generates war-fighting capability through a fully integrated logistics enterprise based upon collaborative planning, knowledge management, and best-business practices." To bring the vision to fruition, the Army is exploiting new Information Technology (IT) through the Logistics Modernization Program (LMP) and the Global Combat Support System - Army (G-Army) programs. The Army has selected the SAP standard software solution to enable these modernization efforts. Through business process reengineering (BPR) and by adopting the best business practices embedded in the SAP software, the Army intends to develop the Army Logistics Enterprise (ALE). These modernization efforts focus on an integrated and seamless information system end-state. Currently, there is a plethora of other systems that support Army logistics operations. Action is being taken to integrate, consolidate and delete the old and stovepiped systems as the Army transitions to the SAP standard software solution. The opportunity for the Army to define a fully automated end-to-end logistics enterprise is greatly enhanced through its option for the SAP solution.

The Army fielded its first SAP deployment in July of 2003. The eventual full operational capability (FOC), which occurs in December 2003, will modernize the current two major logistics sustainment IT systems (e.g. Commodity Command Standard System and Standard Depot System). G-Army (SAP) is scheduled for deployment starting in FY2005 with FOC in FY2007. The Army is committed to a sound strategy based on architectural planning which will frame the scope and establish a baseline for follow-on extended enterprise implementations.

To support the transition to a fully integrated solution, the Army was seeking an enterprise architecture that provided for an integrated logistics value chain. The Army's goal was to employ logistics operations knowledge and SAP systems knowledge to develop creative solutions to leverage SAP technology to provide the utmost operationally effective solution to enable the logistics vision.

Hence, the Army made a contract with Enterprise Integration, Inc. (EII) and IDS Scheer, Inc. (IDS) to provide a review and analysis of ongoing activities associated with current logistics programs, along with specific programs and plans that may be expanded to contribute to the desired solution. EII and IDS were asked to develop a solution architecture that supports a web-based SAP solution strategy, taking all Army logistics business processes into account, to include disconnected operations and taskforce reorganization. The scope includes the functions of supply, maintenance, packaging and handling of material, and associated logistics financial functions, ensuring engineering product data is managed and utilized, warehouse functions, industrial base, connectivity to automatic identification technology, and combat support systems such as medical, transportation, personnel, finance, and legal. The enterprise architecture was required to span all major commands (MACOMs) and all echelons in the Army (to include fixed-base and