Lessons Learned from the Army's Largest ERP Implementation

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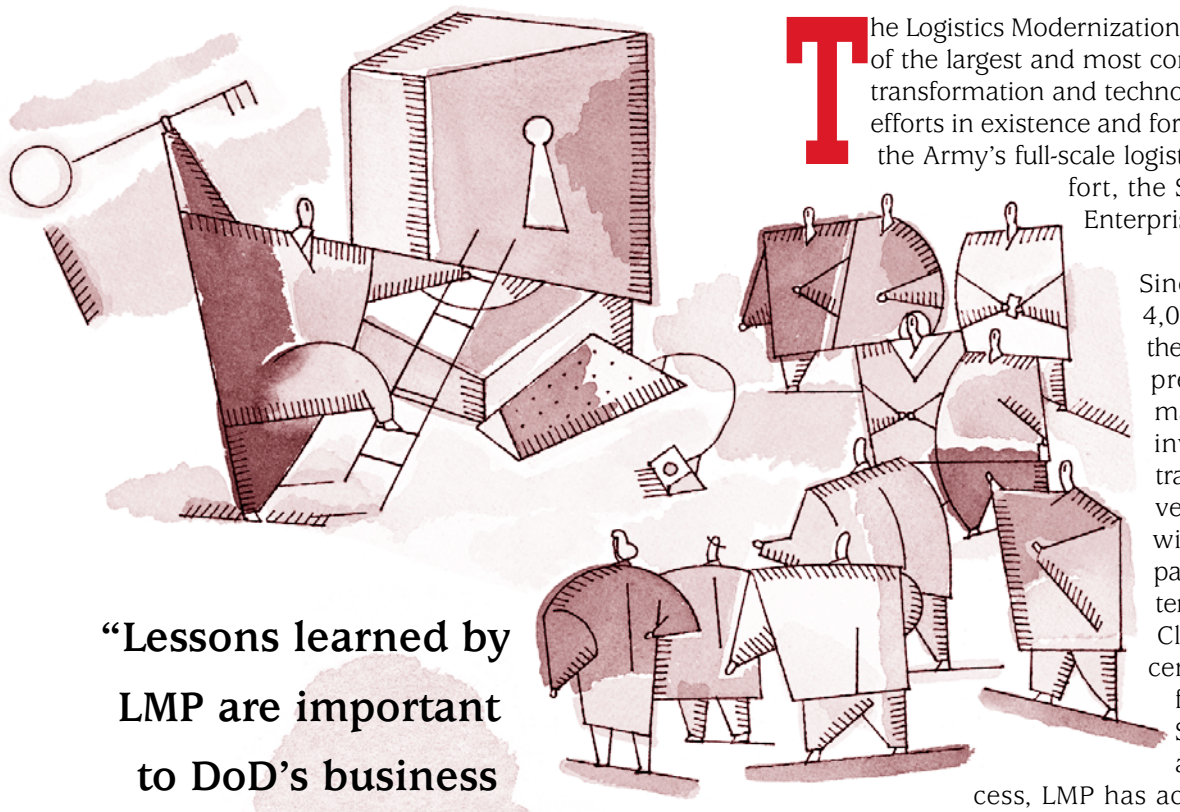

"Lessons learned by LMP are important to DoD's business transformation effort. LMP is now on a path to success through emphasis of key transformation principles, senior leadership engagement, effective governance, and effective change management."

Paul Brinkley,
deputy under secretary of defense
(business transformation)

The Logistics Modernization Program (LMP) is one of the largest and most comprehensive business transformation and technological modernization efforts in existence and forms the cornerstone of the Army's full-scale logistics transformation effort, the Single Army Logistics Enterprise (SALE).

Since first deploying to 4,000 users in July 2003, the LMP has delivered impressive results. LMP manages $4.5 billion in inventory, processes transactions with 50,000 vendors, and integrates with more than 80 Department of Defense systems. Compliant with the Clinger-Cohen Act and certified by the DoD Information Technology Security Certification and Accreditation Process, LMP has achieved these accomplishments while sustaining two large legacy systems simultaneously and concurrently with enterprise resource planning (ERP) development and deployment. On March 8, 2006, under the direction of Kevin Carroll, the Army's Program Executive Office Enterprise Information Systems (PEO EIS) assumed operational control of LMP to offer its expertise managing large-scale systems implementations.

LMP hasn't made such strides without challenges. In reviewing what the program has done right and wrong, there is significant value in communicating lessons learned to other program managers, many of whom may be embarking on their first information technology-related programs. PMs can take the lessons learned and leverage the good decisions while avoiding those that were less than advantageous. In doing so, we ensure America's warfighters get the products and services they need at the best

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price without entangling taxpayer dollars in bureaucratic red tape—an approach that is crucial in wartime.

Communications: Critical to Manage User, Stakeholder Expectations

ERP implementation is about business transformation, not technology. Business transformation cannot occur without well-planned and -executed communications activities to deliver the context people need to understand the goals of the project. This is particularly critical to the success of long-term projects affecting thousands of users and contributing to national security objectives. In fact, communications in such circumstances are crucial when you take into account the natural resistance users feel on being asked to give up a homegrown system to learn new processes required by an ERP.

In most cases, soldier-users have been employing the legacy systems for years to accomplish their daily work. They thoroughly understand the old systems, and even as they curse old systems' shortcomings, many users have come to judge themselves as experts in their use. And there is a certain level of comfort, confidence, and pride inherent in that attained expertise. The implementation of an ERP solution will upset this apple cart. This is where an active change management, communications, and outreach program becomes necessary.

Today, Army G4, Army Materiel Command, and PEO EIS engage in frequent communications with LMP's current and potential customers as well as stakeholders in the Army and DoD. LMP has made it a priority to make the community more aware of the success as well as the challenges of LMP. This outreach involves keeping everyone informed of the program's progress and ensuring the new PM office, G4, Army Materiel Command, and the customers all have a clear line of common factual knowledge and understanding among them. Communications and outreach to all interested stakeholders, but especially to the users, play a pivotal role in ensuring the system deployment exceeds all positive expectations.

A lack of effective communications contributed to a falloff in support for LMP from executive-level and middle management staff. Specifically, LMP failed to set realistic expectations about initial productivity. It is a fact in any systems implementation that productivity levels decline temporarily during the initial period after deployment. Because of the huge productivity improvements that are available with ERP, failing to adequately communicate expectations led to a distorted perception about what the system could *immediately* achieve. The effects have persisted until today, even though the system consistently exhibits superior performance according to all metrics.

These lessons haven't been lost on the Communications-Electronics Life-Cycle Management Command, one of the first LMP deployment sites. C-E LCMC commanders have advised senior leadership to get users involved early on in the process and to explain the importance of the program and how it fits into the bigger picture. While bracing team leaders to expect a dip in productivity to go along with the learning curve, LMP has learned that good communications up front will be instrumental in making that learning curve shallower and shorter.

Another key lesson learned by LMP: Any approved changes to processes and procedures need to be effectively communicated through a series of planned notifications. In addition, Army and other government management structures need to be thoroughly briefed and educated on any aspects of the project that affect all the organizations collecting, owning, and using the logistics data contained within the system. These communications activities enable more effective and structured management reviews and greater understanding of any course corrections required during the project.

In any large ERP implementation, improved communications activities have pervasive effects throughout the project, even impacting the technical performance of the system. For example, during early phases of the project,

LMP Communication Tools

Among the LMP communication tools are:

- User satisfaction manager
- Monthly newsletter
- User editorial board
- User town hall meetings and roadshows
- Articles in respected publications
- Videos and Flash presentations
- Speaking engagements and exhibits at conferences and other forums
- Talking points cards
- Fact sheets and brochures

LMP Fast Facts

- World's largest fully integrated supply chain MRO planning and execution solution
- Integrates with 80+ DoD systems
- Manages $4.5B in inventory with 50,000 vendors
- Clinger-Cohen-compliant and DoD Information Technology Security Certification and Accreditation Process-certified
- Handles 1.6M transactions daily
- 17,000 users upon full deployment

You're the Judge

Darleen Druyun, a senior procurement official at the Department of Defense negotiating the Boeing tanker lease, entered into a contract to sell her house on Oct. 21, 2002. John Judy, a member of the Boeing general counsel's office, who was himself engaged in the Boeing tanker lease, purchased her house for $692,000. The purchase price represented a gross profit of $77,747 for Druyun on the house she had purchased in August 2001. Druyun formally recused herself from any discussions involving Boeing on Nov. 5, 2002. The settlement date for the house sale was Jan. 3, 2003, the date on which Druyun went to work for Boeing as a senior vice president. DoD reached an agreement with Boeing to supply 100 tankers in May 2003. Judy appears to still own the house.

Did Darleen Druyun violate any laws in the sale of her home to a Boeing executive?

The verdict is on page 46.

it is important to communicate how all key processes and transactions are mapped to user roles within the organization. In doing so, the project team can more easily work with users to restrict roles to functional levels, and more readily configure the solution to meet higher-level business requirements (as opposed to aligning the system to meet specific job responsibilities, which nevertheless must be modified to realize the goal of delivering standardized data). As a result, the system has fewer variables to manage and maintain; managers and end-users get a more simplified view of the new environment; the system has a cleaner data feed into security systems; and training and technical support activities are simplified.

Training: The User Glue

One of the important factors LMP had to address regarding training was an initial failure to have the new business processes fully documented before going into training. In addition, the team found that some of the hesitancy related to implementing the system had to do with a subset of end-users who needed a more in-depth explanation of the new processes—an explanation that went beyond what was needed to operate the system. For example, in supply and demand planning exercises, some individuals readily gravitated to the new operations, while others needed a complete picture of the underlying reasoning behind why the processes were changing.

Training must ensure that users understand the value LMP brings to the warfighter. Logistics transformation allows soldiers on the front lines to have insight immediately into the supplies they need. When applied to LMP, an effective training approach ultimately allows soldiers to get supplies faster at a time when having supplies means the difference in mission success.

Moreover, users are more interested in a new system and new business processes when they can provide input on how to improve them. This mutual exchange of information within training and other site-readiness activities creates a more knowledgeable workforce and lowers anxiety levels. In addition, the project staff needs to assure site personnel that they are equal contributors within a single team, together managing the training resources and the training content.

To achieve this total-team approach, LMP leaders recommend including site-training coordinators, operational experts, functional experts, and managers who contribute to defining training requirements in the training mix. Training coordinators and instructors need to work with project personnel to plan for available training facilities and equipment, review and refine the description of new roles and responsibilities, and conduct overview training on the new software's capabilities. In addition, Army subject matter experts need to participate in quality-assurance and dry-run activities to ensure that new system requirements are adequately addressed in course material.

Comprehensive Data Cleansing: A Must-Do

Eager to meet the urgent needs of wartime logistics, in July 2003, LMP and C-E LCMC jumped to convert legacy systems over to LMP. The lesson for both the program office and the deployed sites was clear: Doing what one can to understand the data in one's legacy systems, and very carefully following the procedures to prepare the data will pay off. It is not so easy to go back and fix data once the conversion has taken place.

Whenever any organization undergoes a transition from using a large number of systems to a single-system environment, conflicting sets of data must be reconciled to provide an accurate view of reality. LMP learned that Army subject matter experts could have simplified much of the complexity underlying the data cleansing efforts. Much of the data interaction between systems is a government-customer function, and the Army understands these data. The appropriate role of contractors in data migration should be to guide the Army in understanding the end-state data requirements, which reflect the much more disciplined approach inherent in an ERP system.

LMP found that factors such as a lack of serial numbers and invalid inventory locations compounded the transfer of data between legacy systems and the new envi-

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ronment. Before the staff could perform any data migration to the new environment, item names, units of measure, unit price, and obsolete items to be deleted all had to be precisely identified. For example, if the bill of material of any acquisition is inaccurate, personnel at the receiving end are often confronted with a situation where a shipment lacks a simple part to complete the installation or configuration of a needed solution.

Thorough data cleansing activities are critical to achieving the total asset visibility enabled by LMP. In addition, the system reduces the time spent on activities that would otherwise require follow-up work stemming from discrepancies among numerous systems. For example, legacy systems often contain multiple versions of a single business transaction, which makes logistics and finance information difficult to reconcile.

System Support: Helping the Customer the Smart Way

Lessons learned during the initial LMP deployment resulted in the team's implementing several improvements to system support activities. Support personnel now use a root-cause-analysis procedure to establish the source of all problems and identify the appropriate fixes. LMP leaders have worked to ensure that support procedures take advantage of the knowledge of end users, functional experts, and other subject matter experts—people who are already familiar with the new environment—to develop scripts for support personnel responding to user requests. In addition, by establishing rules for properly categorizing all help desk calls, support personnel now serve as a feedback loop, contributing to information the project team uses to improve the system.

LMP found that automated help desk tools, processes, and procedures complemented a strong site-support staff. Problem tickets are documented using the Advanced Help Desk Tool, which assigns tickets to workflow coordinators and improves response time; and support staff document repeat conditions in the system for use by other personnel. The key lesson learned is that developing and implementing a support strategy make a significant difference in system availability and customer satisfaction. As a result, LMP has achieved a sustained 99.998 percent level of system availability, beating the industry-accepted standard of 99.5 percent.

LMP: Poised to Deliver the Full Benefits of ERP

LMP is operational, proven, and has been supporting the requirements of warfighters around the world, including soldiers on the frontlines in Iraq and Afghanistan, on a daily basis since 2003. As LMP worked through quality issues and strengthened project-management controls, the system's performance markedly improved and is well-positioned to achieve its ultimate, intended benefits: delivering real-time situational awareness, vastly improved decision-making capabilities in logistics and finance, significantly reduced costs, and major productivity improvements.

LMP requires Army logistics professionals to adopt new business processes, policies, and procedures to fully realize the benefits of the system. All organizations have an inherent resistance to change, so making the transition from multiple systems and localized processes to a unified logistics information environment requires a commitment to change. The transition often involves sacrificing previously established methods for new, standardized processes, but the benefits are enormous. These new processes result in the delivery of data applicable to all organizations across the Army, rather than a system marked by isolated islands of information difficult to reconcile, and errors that make the entire organization less efficient and flexible.

When fully deployed to 17,000 users, LMP will deliver total situational awareness of Army assets within five seconds of submitting a request, enabling more rapid decision-making capabilities and improving soldier readiness. Inventories will be significantly reduced because LMP allows logisticians to better plan and allocate resources, which will also dramatically reduce theater footprint. In addition, by delivering the capability to improve planning for maintenance and supply activities, LMP will have a direct effect on weapon systems' operational availability and will positively impact operational readiness.

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