




DEFENSE STANDARDIZATION PROGRAM

CASE STUDY

Consolidated Acquisition of Standards-Related Information



This case study describes how the Army Materiel Command (AMC) consolidated the acquisition of standards-related information into a single contract managed by a single office. Not only are quality, access, and oversight greatly improved, but the cost savings are substantial—more than \$1 million per year, or about a third lower than the costs under the old business model.

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BACKGROUND

AMC develops and acquires the materiel needed by warfighters. That materiel ranges from meals ready to eat, uniforms, ammunition, and communications systems, to complex, sophisticated weapon systems. AMC also is responsible for sustainment of the materiel, including maintaining and distributing spare parts. In short, AMC's responsibilities span the entire materiel life cycle from innovative idea to factory to foxhole.

To fully optimize its development, acquisition, and sustainment missions, and thus ensure readiness throughout each system's life cycle (which can be 30 years or more), AMC maximizes its use of military and other government standards, as well as commercial standards. To put it another way, AMC capitalizes on the wealth of knowledge from all communities—sister military services and other government agencies, foreign partners, industry, and academia—to find the right solutions for the tough acquisition and sustainment issues that affect the Army's warfighting capability.

AMC's libraries, life-cycle management commands (LCMCs), and other units purchase standards-related information through a commercial information provider. Over the 3-year period from

2005 through 2007, AMC spent about \$3.4 million a year, or a total of about \$10.2 million, to purchase standards and standards-related information.

PROBLEM

AMC is a Lean Six Sigma organization that prides itself on periodically reviewing its business practices to identify and address defects. A review, by the AMC command librarian, of the practices used to



obtain standards-related information revealed two key defects:

- Multiple AMC units, including the 12 AMC libraries and various AMC engineering shops, had established their own contracts with a commercial information provider. Because these units operated independently, they had no way to know whether the information they needed had already been purchased by another AMC unit.
- AMC units were paying the commercial provider for government-owned information—including AMC-owned information such as military standards and specifications, Logistics Support Activity (LOGSA) information, and so on—that is available elsewhere at no cost.

These practices not only were expensive, due to duplicative purchases and purchases of information already available at no cost, but were inefficient. For example, no overall coordination existed among the various contracting offices and the LCMCs. Moreover, because of the individual contracts, knowledge management professionals employed by AMC's libraries had no influence or oversight of the quality of the standards-related information being obtained.

APPROACH

Because the business model of obtaining standards-related information independently was entrenched in the AMC culture, the command librarian realized that he would need to develop a well-documented

and comprehensive analysis of the current practices before he could propose and implement a solution to address the defects. In other words, stakeholders would need to be convinced that a new business model would be beneficial.

To develop the case for a new business model, the command librarian assembled a team of knowledge management professionals; users of standards-related information, including scientists, engineers, and specialists in such fields as weapon development, manufacturing, and logistics; information technology (IT) specialists; and acquisition professionals.

Develop the Business Case

The team began by surveying AMC library representatives and standards users within the LCMCs and other AMC units. The team found that multiple searches for the same information are counted separately by the commercial information provider and are billed accordingly, leading to widespread inefficiencies and redundancies. The team also found that it was a common practice to use the commercial information provider to retrieve government standards and specifications and to allow the provider to bill AMC for this service.

Considering its findings, the team designed a combined subscription/pay-on-demand business model. The new model uses information management principles to centrally manage an information database that supports a buy-once but use-often approach to standards and specifications.



The AMC team's solution has three critical components:

- *Consolidate all standards-related information requirements—specifically, all command standards and specification subscription services—into a single competitive contract managed by a single contract office.* Working closely with AMC acquisition specialists, the team developed a solicitation that, among other things,
 - required standards-related products to be accessible to AMC personnel through a central point within the AMC IT architecture and
 - guaranteed round-the-clock online services with a system availability rate of not lower than 98 percent.

Using a competitive solicitation in the knowledge management field, which has experienced very little competition in the past, had the desired effect. AMC is convinced that the winning offeror made a special effort to ensure its success in the competition.

- *Make standards-related information—both government and commercial—accessible to the entire AMC enterprise through a central, web-based portal.* The team explored the feasibility of a portal with IT specialists both within the AMC and with representatives from Army Knowledge Online (AKO), the Army's integrated enterprise portal. AKO is operated and maintained by the Army Chief Information Office (CIO), which is responsible for communications, computers, and

IT. The CIO assisted the AMC librarians with the development of the web-based central portal concept. The winning offeror in the competitive solicitation also assisted with the portal's development. The standards portal has been developed on the AKO website and is available on the AMC portal. In addition, the AMC team provided for user support by knowledge management professionals. The portal, managed at the Redstone Scientific Information Center, has already become the central access point for standards-related information across AMC.

- *Eliminate the practice of paying for government standards.* The team recognized that eliminating the widespread practice of paying the commercial information provider to retrieve government-owned information would require a command directive. Although the merits of eliminating this unnecessary expense were self-evident, it was nevertheless a challenge to draft a compelling command directive and to get it through the reviewing chain of command. The reviews were extensive and thorough, but persistence and well-reasoned documentation made the strength of the case irrefutable. The AMC commanding general signed the directive in December 2007.

The AMC team conducted a detailed, comprehensive cost-benefit analysis comparing the old model with the new one. The team was careful to recognize areas, such as administration, for which it was difficult to estimate costs and, accordingly, used conservative estimates. The team also identified



assumptions crucial to the successful implementation of the new model (notably, the requirement for a command directive prohibiting purchases of government-owned information) and recognized constraints (such as pushback from field units concerned about their continued access to the needed information) that would need to be overcome. In short, the team's assessment was realistic and evenhanded. As a result, the cost-benefit analysis was a persuasive tool for convincing stakeholders that implementing the new business model would be highly beneficial both to them and to AMC as a whole.

The new model was approved up to the AMC executive deputy, who signed for the AMC commanding general. Once approved, the new model was made an AMC budget summit item and was subsequently approved by the subordinate commanders.

Obtain Resources

To implement the new business model, the AMC team needed resources. Although resistance was stiff, the team was able to convince AMC units to relinquish the funds they had been using to obtain their own contractual access to the commercial information source. The team—with the help of resource managers at the subordinate commands, who recognized the compelling business case—overcame the resistance by pointing out the cost savings, the more efficient processes, and the importance of enterprise-wide access to standards and standards-related information (which is integral to the daily opera-

tion of the materiel enterprise), as well as the command-level support for the new model. The team used the relinquished funds to establish the single competitive contract to provide centralized AMC-wide access to standards-related information.

The AKO and AMC CIO assisted with the development of the portal. In addition, the Army CIO was willing to devote two full-time equivalents from the Headquarters AMC library to provide centralized management and user support. In addition to that support, the AMC team provided for extensive online user training on access, retrieval, and management processes related to standards.

Obtain Stakeholder Buy-In

Because of the significant differences between the old model and the new one, the AMC team knew that resistance and pushback would be unavoidable. To obtain buy-in, the team had to refute the misinformation circulating in the user community. For example, some argued that a competitive procurement was pointless, because only one comprehensive source of standards-related information existed; in other words, the marketplace for standards-related information contained few if any competitors. The team pointed out that the AMC libraries, in particular, the Redstone Scientific Information Center, had accounts with several vendors. Other users maintained that historical U.S. military standards and specifications are not available except through commercial organizations; the team pointed out that ASSIST has most of the historical standards



and specifications, although many are in hard-copy format.

The team also had to convince stakeholders that the purpose of switching to a central web-based portal was not to eliminate access to standards-related information but to make retrieval of that information simpler and less expensive. The team explained that the SharePoint portals (at Headquarters AMC and each subordinate command) would be integrated, allowing access to standards and specifications through AKO, AMC's primary portal to the commercial information provider. The team has distributed detailed guidance on how to access AKO through official AMC channels, and the AMC command librarian spent the first few months personally contacting people at the subordinate commands and known users to ascertain that they understood the guidance.

In addition, the LCMCs were concerned that changing the way standards-related information is retrieved would affect AMC production in vital areas of life-cycle management. Field units were concerned that the existing way of doing business with the leading standards-related information repositories was going to be eliminated by the proposed consolidated approach. It was necessary to convince them that the subscriptions with these repositories would still be in place and the information needed would remain available.

Through persistence, the team was able to make the case that searches for and retrieval of standards-

related information would continue much as before. Users would be able to retrieve information at will, but with the added advantage of a professional researcher available when needed. Specifically, the AMC command librarian will step in upon request, for example, by a user who has a gap (usually a bad citation) or simply needs training. In addition, the librarian will send e-mails and make telephone calls to make sure the end users are having no problems. The program also has points of contact for troubleshooting and solving access problems. The program is now serving more than 20,000 engineers and scientists with one full-time librarian.

The team also pointed out that the significant reduction in cost and the improved management of government-owned intellectual property would increase the stability, security, access to, and use of standards-related information across the AMC enterprise.



BENEFITS

The use of true competition and a one-subscription business model has had a sweeping effect on the quality of and access to standards-related information and has improved oversight:

- Competition among offerors resulted in higher quality technical and cost proposals.
- Military standards are available at no cost.
- Desktop access and single-point portal access, combined with a common database, make it easy for users to obtain standards and specifications.
- Site license restrictions on access to standards-related information are removed, enabling users, regardless of their location, to have direct access to the information.
- Program management by experienced librarians and knowledge management professionals

ensures user support in areas of research, training, and vendor interface. This, in turn, frees higher-cost scientific and engineering personnel to engage more fully in research and development and in life-cycle management.

- Professional information and budget management personnel have an overview of the acquisition and utility of standards-related information, which should lead to the development of best practices.
- Management of funds is centralized, greatly improving oversight of funds expended.

Not only are quality, access, and oversight greatly improved, but the cost savings and cost avoidance are substantial—more than \$3.5 million per year. The estimated cost savings alone total more than \$1 million per year and are due to a small reduction in contract costs plus a large reduction in contract management costs, as shown in Table 1.

Table 1. Cost Savings Realized with New Business Model

Business model	Contract cost	Contract management cost	Total
Old: 35 contracts 25 separate contract offices 1/3 person-year per office	\$2,640,000	\$758,000	\$3,398,000
New: 1 contract 1 contract office 1 person-year	\$2,260,000	\$91,000	\$2,371,000
Savings			\$1,027,000



In addition to cutting its costs, AMC has avoided the costs of research time. In other words, the availability of an online “one-stop-shopping” source of standards-related information has substantially reduced the users’ need for the services of scientists and engineers. The AMC librarian estimated that if only half of AMC’s 5,000 scientists and engineers saved as few as 10 hours per year doing searches, the cost avoidance would approach \$2.5 million per year (10 hours × 2,500 employees × \$50 per hour).

FUTURE EFFORTS

AMC anticipates that the cost savings and cost avoidance will continue. The portal should prove itself to be even more efficient and effective in retrieving standards-related information as the users become increasingly aware of it and more comfortable with its use.

AMC also anticipates further savings when all LOGSA products are acquired through the portal. AMC plans a detailed analysis to identify the LOGSA products currently being purchased through other commercial vendors.


Because of AMC’s success in developing an enterprise approach to the procurement of industry standards and specifications, other scientific and technical organizations—notably, the U.S. Army Corps of Engineers, the Air Force Research Laboratory, and NASA—have expressed an interest in emulating the AMC program or piggybacking their standards-related information retrieval onto the AMC contract.

LESSONS LEARNED

The following are the key lessons learned from the AMC effort:

- *Understand the problem.* It was critical that enough research be done and enough information gathered to be able to present a case for the consolidation of standards-related information retrieval.
- *Assemble the necessary expertise to develop the new business model.* Pulling together the various aspects of the new model required the expertise of knowledge management professionals, users of standards-related information, IT specialists, and acquisition professionals.
- *Develop a solution and build a coherent case for its implementation.* The normal resistance to change





must be overcome. Doing so requires clearly demonstrating the solution's merits, in terms of both cost and efficiency. In addition, each stakeholder's issues must be explicitly addressed.

- *Identify and remove the defect.* Borrowing from the Lean Six Sigma approach, it is important to recognize the significant flaws in the processes and endeavor to take the steps necessary to correct them. In this case, nothing less than a command directive was necessary to break established habits.
- *Reeducate the community.* Some members of the AMC user community held some significant erroneous beliefs. The team had to correct those misconceptions before it could present an alternative to their way of doing business.

- *Be realistic when assessing the present practices and the proposed future ones.* An evenhanded, realistic stance was more convincing and productive than trying to maximize the existing problems or minimizing the issues in implementing a change. In the cost-benefit analysis, the team clearly identified the assumptions as well as the constraints. In order to obtain stakeholder buy-in, the case had to be straightforward and realistic.
- *Solicit stakeholder support.* Whenever proposing new business practices, it is necessary to convince the stakeholders of the benefits to them and to their budgets.

