

## **KM in the U.S. government sector**

- [Alex Motsenigos and Jocelyn Young](#) of International Data Corporation (IDC)

By Alex Motsenigos and Jocelyn Young

Critical challenges, such as the threat of terrorism, siloed and bureaucratic organizational structures and an aging work force among others, are creating a need for U.S. government agencies to embrace knowledge management solutions. IDC ([idc.com](http://idc.com)) expects investment in KM software and services in that sector to increase over the next two years.

Knowledge management is recognized as a key enabler of internal efficiencies and a competitive differentiator across many types of companies and various vertical industries. Knowledge management will assume a different shape and form in the government sector than in the private sector. The not-for-profit orientation of government has different motivators and stakeholders to please. In contrast to the private sector, in which the bottom line rules, the government's ultimate directive is to better serve and protect its citizens. However, the driving principles behind KM in government remain quite consistent with the KM drivers in the private sector.

### **Current challenges facing government agencies**

#### ***Information sharing and information access***

Information is a powerful tool. When managed successfully, it can be used to enhance government agency operations by raising employee productivity. Yet, the mismanagement of that same information can contribute to serious lapses or points of exposure. Federal, state and local government agencies alike have focused on the need for increased information sharing and access within agencies and among agencies. Those concerns have increased because of such legislation as the Paperwork Reduction Act and the Freedom of Information Act (FOIA), which demand an infrastructure and process for capturing, managing and accessing information efficiently.

However, the concept of information sharing and access varies greatly across government agencies. Only the more process-oriented agencies are prone to information integration in the sense that they are handling information that can be shared. For agencies that handle highly sensitive information, such as local police departments, the prominent challenges are the ability to secure access and provide just-in-time access to information.

#### ***Security issues: from IT security to homeland security***

The issue of security takes on several layers of meaning for government agencies. As related to an agency's IT infrastructure, transmission of information must be secure, access to information must be controlled and sensitive information must be accessible to different audiences at different times and for different purposes. Those challenges are addressed through intrusion protection, user authentication and encryption in government. The tragic events of 9/11 made clear the paramount need to capture and share intelligence across government agencies, and raised KM to an issue of national security.

As the need for increased security at all levels of an agency's IT infrastructure continues, government agencies face multiple challenges to meet the needs of civilian, defense and intelligence functions within the government.

Among them are:

### ***Retaining IT professionals: dealing with a retiring IT work force***

The retention of qualified IT professionals is crucial to maintaining the government's ongoing IT operations while upgrading to and evaluating new technologies.

Recruiting and retaining qualified IT personnel are key challenges because nearly half of the nation's state-level IT staff will retire in the next five to seven years. The federal government sector faces a similar scenario. IT salaries in government tend to be lower than in the private sector, and career advancement opportunities are not as plentiful.

Initiatives such as [Sandia National Labs'](#) Knowledge Preservation Program, which is aimed at capturing the nuclear weapon development expertise of retiring scientists, is but one example of a number of initiatives within government to address the threat of a retiring work force.

### **The role of KM in government today**

Despite the importance that has been placed on KM recently, it is equally important to look at what government agencies actually think about KM and what challenges they face in making KM a reality. In this section, IDC ([idc.com](#)) highlights some key findings from a recent survey that it conducted in partnership with KM World.

IDC collected 740 responses, 6% of which represented KM decision makers from federal and local governments. The majority of respondents were from the United States.

Of the government respondents whose organizations are currently involved in a KM initiative, the top reasons for pursuing KM included enhancing internal collaboration, capturing and sharing best practices, and providing e-learning. Driven by the need for greater internal collaboration and accelerated by homeland security initiatives, as well as by the anticipated exodus of employees, government agencies are embracing KM solutions to create knowledge-sharing organizations, as well as to capture and make better use of best practices.

However, government respondents indicated that they face key obstacles in adopting KM, especially a lack of executive-level buy-in and a lack of funding. Among those government respondents who had not yet adopted KM, the majority indicated that they are in the exploratory stage. Although KM is a high priority in the government, especially because of the focus on information sharing to tighten national security, many agencies struggle with the how-to's. In addition to buy-in and funding issues, government agencies are still in the early stages of determining how KM can be adopted within their functional area.

Another survey finding that illustrates challenges in adopting KM is a lack of understanding or metrics to measure the success of KM projects. Seventy-six percent of government respondents indicated that they do not have measures in place to evaluate the success or effectiveness of their KM initiatives. That is higher than in the private sector, which was 66%. Such a disparity is not entirely surprising because government is not held to metrics the same way that the private sector is. However, as KM matures and government IT budgets are scrutinized more carefully, government agencies must evaluate the ROI of KM investments when possible.

Looking at the audiences for KM initiatives in government, IDC's survey indicated that executives are often the key target, suggesting that executives often use KM to support decision-making. KM initiatives in government also target specific, internal audiences, such as human resources, finance and sales. KM is also becoming more prominent in the delivery of customer service. More than 28% of government respondents indicated that customer service is a target audience for their KM initiatives. In many cases, such initiatives may help feed into broader e-government initiatives.

The survey showed that approximately 78% of the KM government budget will be spent on services and software—with spending on services greater than on software. Government buyers showed more interest in IT services than in business services. In fact, government respondents indicated they are going to allocate two-thirds of their budget to IT services, and one-third to business services. From the broad mix of business and IT services that will be required to support KM initiatives, IT consulting will be the type of service most widely purchased. Interest level in various applications to support KM initiatives was concentrated in the following software categories (among others):

- document management software,;
- collaborative applications,;
- search engines,;
- enterprise information portals, and;
- workflow.;

Interest was also expressed in expertise tracking and business intelligence tools to help government users better understand data to support decision-making.

### **Applications of KM in government**

A number of KM initiatives are currently taking place in the government sector. Many of them involve portals, content and document management, and collaboration. Federal agencies that appear particularly active in KM are defense-related agencies, such as the Navy, Department of Defense, Army and Air Force, as well as civilian organizations such as the General Services Administration (GSA), Environmental Protection Agency (EPA) and National Aeronautics and Space Administration (NASA). A number of KM initiatives underway involve the intelligence community, and KM projects related to homeland defense are likely materialize in 2003, pending consensus on the organizational structure, membership, leadership and budget of the Homeland Security Office.

At the state and local levels, revenue-generating agencies have, in general, led the knowledge management movement in government. Frequently KM applications involve:

- Tax processing and unemployment reporting (state government), and;
- Imaging and GIS technology for land records applications (local government).;

Other emerging applications of KM include:

- Tracking technologies. Child welfare is adopting new technologies to track parents who are out of compliance with mandatory federal requirements.;
- Correspondence management technologies. Local governments have been burdened by FOIA requests, driving interest in adopting knowledge management systems to help organize information for compliance.;
- Data capture and research purposes. Government agencies such as Secretary of State offices must track business debts and trademark registrations—a function that technology can perform to avoid the

cost of hiring a research firm or law firm to track information.;

### **Sizing the market opportunity**

Total government external IT spending in the United States reached \$28.9 billion in 2001. IDC forecasts that the market will reach \$42.2 billion by 2006, demonstrating a five-year compound annual growth rate (CAGR) of 7.8%.

Total discrete external KM spending for services in the United States reached \$1.4 billion in 2001. IDC forecasts that the market will reach \$2.9 billion in 2006, exhibiting a five-year CAGR of 15.5%.

Spending on discrete KM services projects in the U.S. government sector amounted to \$98.6 million in 2001, or about 7% of the entire U.S. KM market. IDC forecasts the market will grow to \$257.4 million in 2006, representing a five-year CAGR of 21.2%.

Growth in government spending is expected to surpass overall industry growth rates. This year and next year are expected to be strong years for spending on KM-related initiatives. The spending will be fueled not only by homeland defense–related initiatives but also by an accelerated need for many organizations to effectively prepare for a retiring work force. Inhibiting the growth of spending in KM initiatives will be the economic slowdown, which has resulted in a decline in tax dollars.

The market size and forecast numbers provided above represent total external spending on discrete KM services. IDC's survey suggested that the majority of government sector budgets allocated for KM initiatives represent internal spending.

### **Market drivers**

The following market trends are driving adoption of KM solutions at all levels of government. In many cases, those drivers are similar to trends driving the adoption of KM in the private sector. The drivers include:

- Government agencies need to capture and share best practices internally. That need for collaboration applies within a specific government agency and across agencies with similar functions. ;
- KM plays a strong role in the delivery of training information electronically. As KM becomes an effective way to capture and transfer knowledge within an agency, it is increasingly providing training to employees.;
- KM plays a strong role in improving the productivity of a government work force. KM not only seeks to capture and leverage an internal knowledge or skill set, it minimizes redundant efforts that occur across the agency or among similar agencies throughout the United States.;
- The events of 9/11 brought to the forefront issues that government has long struggled with, such as the need to share information across agencies. The events have also led to the reconfiguration of some aspects of government and the pursuit and establishment of new initiatives and entities to better cope with the future threat of terrorism. As soon as there is consensus on the nature and operational role of the Homeland Security Office, key cross-agency and intra-agency initiatives will be rolled out to increase the effectiveness of information sharing and promote greater collaboration. Such issues are fundamentally KM-related, involving deep expertise in technology, process and people. Vendors that have deep capabilities in those areas, either internally or through partnerships, should be well positioned to take advantage of the opportunity. ;

## Market inhibitors

Several challenges to KM adoption in the government hinder market development. The key market inhibitors include:

- Managing organizational change and dealing with political or cultural issues within the agency (or among agencies) are perhaps the most palpable barriers to KM adoption. ;
- Layers of policy in the government sector often slow the decision process. Layers of oversight lead to slow responsiveness when implementing KM solutions;
- The fragmented nature of government agencies across the United States (especially at the state and local levels) poses challenges. Initiatives are as fragmented as the agencies in which they reside. Working with existing initiatives and incompatible systems hinders agencies from seeking KM solutions.;
- The economic slowdown will certainly have an impact on tax revenue flowing into government and will likely influence spending budgets. Although government budgets will be slow to change because of budget cycles, some impact may eventually be felt in government IT spending. IDC believes that the problems that KM addresses are important and are likely to face little threat from any impending budget cuts.;

## Essential guidance

IDC offers the following recommendations to vendors targeting the government sector for potential KM projects:

- Most KM projects are being pursued via existing contract vehicles, not new contracts. Prime contractors with long-term, existing relationships with the government are in the best position to capture those opportunities. If you are not partnering now, seek out partnerships with the large, traditional contractors to the government, such as Lockheed Martin ([lockheedmartin.com](http://lockheedmartin.com)), CSC ([csc.com](http://csc.com)) or EDS ([eds.com](http://eds.com)), and align offerings and organizations to pursue opportunities. ;
- Rarely is technology the main obstacle to adopting KM. Gaining top-level leadership buy-in is part of the equation, but so is getting support from the bottom up--from the employees who will use and benefit from the KM system. Furthermore, change management services offerings will play an important role in addressing people- and culture-related challenges. ;
- Start small and build quick wins into your approach with government clients. Building on those short-term, more immediate wins will help develop believers within the organization and will allow for incremental change and pieces of technology.;
- Attract top government officials and talent into your organization. Competing in the government often requires deep knowledge of the culture, people and processes. Such talent can help navigate your organization through the government waters.;

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Alex Motsenigos is senior analyst, Globalization, Localization and Knowledge Management Services at IDC ([idc.com](http://idc.com)), e-mail [amotsenigos@idc.com](mailto:amotsenigos@idc.com). Jocelyn Young is program manager, U.S. Vertical Industry Research at IDC, e-mail [jsyoung@idc.com](mailto:jsyoung@idc.com).