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**GAO****Testimony**Before the Committee on Rules and Administration  
United States Senate

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**MANAGING TECHNOLOGY  
CHANGE****Challenges and  
Opportunities for the United  
States Senate**

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Policies and Issues  
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Mr. Chairman and Members of the Committee:

I am pleased to be here today as you begin this important new effort to help capture the full potential of the information age for the United States Senate. In our work over the years, we have found that real improvements in the use of information technology begin when the top executives of an organization make a personal commitment to take action on this critical issue. This Committee is to be commended for its initiative in the area and its continuing commitment to use technology effectively to further the mission of the Senate.

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## Overview

The information age is filled with opportunities and fraught with perils. During the past 15 years, GAO has reviewed hundreds of information management issues in virtually all federal agencies. We have uncovered many examples of how hundreds of millions of tax dollars have been wasted on technology projects that have not met the critical needs of federal agencies. We have seen good ideas for the use of information technology fail to bear fruit because of poor management at both the senior executive and project management level.

But we have also seen important successes. Our work with leading private sector and state organizations has taught us how they used information technology to dramatically reduce costs of operations, improve their response time to their customers, and increase the quality of their products and services.

The good news is that there are many lessons to be learned about how to manage technology effectively. As you create your own agenda for the information age, you are in an excellent position to profit from the experiences of successful organizations and the lessons they have learned.

Today, I would like to discuss the following three issues:

- First, although the Senate has characteristics that make it a unique institution, it does have enough similarities to private and public sector organizations to make learning from their experience useful.
- Second, information technology offers many opportunities for the Senate and the entire legislative branch to improve its services to constituents, its accessibility to the public, its legislative processes and decision-making, and its committee and office operations. Legislatures around the country

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and the world are using information technology to make improvements in many of these same areas.

- Third, our research of successful public and private organizations highlights the need for key management practices that can spell the difference between success and failure in using information technology to achieve performance improvements. The key lies in developing the organizational strategy and support needed to harness the power of information technology and avoid the costly mistakes that others have made.

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## Although Unique, the Senate Faces Issues Similar to Others

Unlike other organizations, an elected legislature is unique. The types of decisions that the Senate makes through its legislative, oversight, and appropriations functions involve complex factors with huge implications for the whole country and the world. The flow of information in and around the Senate is unceasing, complex, and difficult to manage.

At the same time, however, the Senate and the legislative branch as a whole have similarities to other organizations in requiring numerous business and administrative processes to conduct their work. These include:

- internal customers (committees, members, and staff) and external customers (interest groups and constituents) who have a wide variety of needs that hinge on the exchange of information.
- decision-making responsibilities which need to be supported by timely, quality information,
- work processes that structure how it functions—whether through lawmaking, oversight, or appropriations—to produce outputs, such as laws, oversight actions, funding decisions, and constituent services, and
- the need to maximize the effectiveness and productivity of the legislative and support operations—such as financial management, accounting, payroll, capital equipment and services management—through which the Senate, the committees, and members' offices conduct and manage their day-to-day business.

In all of these areas, the effective use of information technology can play a key role in improving timeliness and quality, as well as reducing costs.

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## Opportunities to Use Information Technology Are Growing, as Is the Urgency to Take Advantage of Them

Organizations that are leaders in the use of information technology to support their missions have achieved impressive improvements in their performance and competitiveness. Along with these opportunities comes a sense of urgency to take advantage of them. In the private sector, the need to remain competitive has led organizations to push ahead of their rivals by managing information with technology that helps to provide better products and services at lower cost, and that allows the business to be more responsive to their customers.

In the public sector, the need to cut the cost of government and streamline operations is creating this same sense of urgency to use information technology to best advantage. There is a large and widening gap between the public's expectations for efficient, modern service and the government's performance—a gap that is undermining the credibility of our institutions. Further, declining budgets and shrinking workforces have created the need to do more with less. Changes in the relationships between the executive agencies and state and local governments, such as the increased use of block grants, also call for new approaches to the way the federal government works.

There are many areas where technology can be used to promote excellence in the operations of the Senate, its committees, and members and to address some of these pressures for change. Additionally, opportunities exist throughout the legislative branch for selected common technology initiatives that can improve collaboration and integration. Here are a few examples.

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## Improving Constituent Services

Private sector organizations, as well as some federal and state agencies, are using information technology to make dramatic improvements in customer service. There are many familiar examples in this area. Automated Teller Machines give customers access to their bank accounts 24 hours a day. Mail order firms take orders any time of day. Leading organizations have established single points of contact for customers to resolve problems during a single telephone call. Overnight deliveries can be tracked in real time.

Private sector improvements in service have greatly raised the expectations of the public. As a result, the public is becoming increasingly impatient with government offices that take days, weeks, or months to resolve a problem or provide a piece of information. The public's growing expectation to deal with a single point of contact and get quality problem

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resolution is leading them to be intolerant of bureaucratic office procedures that result in being handed off from one employee to another or superficial responses. The opportunities to provide better service, coupled with customers' growing expectations for quick, quality service, have obvious implications for how the Senate deals with its constituents.

- Some legislative chambers such as the California, Louisiana, Michigan, and Missouri Senates have constituent management systems that can provide features such as text processing, correspondence tracking, office budgeting, and voter lists. Correspondence tracking features can provide information on cases, constituent contacts, and case resolution. A growing number of legislators have individual Internet electronic mail accounts that enable correspondence with constituents. In Vermont, constituents can contact their legislators through a single Internet address maintained in the office of the Sergeant-at-Arms.

The ability of the Senate to provide high-quality constituent services absolutely depends on the effective use of information technology. This goes far beyond installing desktop computers and establishing electronic communications within the Senate and between members' Washington offices and home offices. It involves the ability of members and staff to rapidly access and integrate the information needed to resolve constituent concerns, whether the information sources are in the Senate, an executive branch department, a regional office, a state agency, or a member's home office.

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## Enhancing the Quality of Decision-Making Through Better Information

Good decisions depend on relevant, high-quality information being provided to the right people at the right time. Information technology is a tremendous tool for improving decision-making. Technology provides new means of navigating the sea of information that surrounds the Senate, and extracting what is pertinent and relevant to the specific issues at hand. Automated research tools, for example, can help committees, members, and staff to access and manipulate a growing number of computerized sources of information and opinion. Obtaining information quickly is becoming more and more essential to the Senate, given the rapid pace of events and the variety of issues that must it must deal with. By speeding up access to quality information, information technology can greatly increase the ability get the right information to the right people, at the right time, in a form that is most useful to the members.

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- Technology is being used in a number of state legislative chambers to help handle the growing volume and complexity of information and to use legislators' time more efficiently. For example, following the lead of the Michigan Senate, which was the first to install personal computers for legislators' use on the floor, an increasing number of states are making personal computers available to legislators to use in legislative chambers to access amendments, bills, other legislative information, and electronic mail. Most states have selected portable computers for legislators' use so as not to change the historic nature of their chambers. Indiana selected wireless laptop computers for legislators to use in the chamber because of the difficulty of installing wiring in the historic capital building.

Innovations such as executive information systems, for instance, could help give members and staff ready access to critical information and analysis. Up to date information on agency performance could be accessed electronically in real time, rather than relying on annual reports or special requests for such data. Just as important, the format of the information can be customized to the special needs of individual members.

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### Opportunities to Reduce Costs and Increase the Reach of the Senate

The nation's rapidly growing information infrastructure provides the Senate and its members with many opportunities to increase its ability to deal more directly with the American people on a regular basis and reduce the costs of doing so.

The Senate can continue to develop its use of the Internet to provide the public with timely information on Senate activities at an insignificant cost. Electronic bulletin boards provide additional opportunities for Senators, interest groups, and constituents to exchange viewpoints and information.

- The State of Hawaii has an on-line computer service that provides governmental and educational information to citizens across the state's 1,500 mile arc of scattered islands via toll-free access by personal computers or computers installed in schools, public libraries, and selected state buildings. This service includes the Hawaii State Legislature's information service which enables citizens to access the text of bills, resolutions, notices, and committee reports; status, sponsor, and voting information for any measure; and descriptions of the legislative process and how citizens can participate in it. Additionally, an interactive electronic networking service allows residents to communicate with legislators and other citizens using electronic mail and electronic conferencing.

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Equally exciting are the opportunities for interactive communications to break down the perceived isolation of Washington from the rest of the country. Senate committee hearings, for example, can use video technology to include a greater variety of witnesses at less cost to both the Senate and the witnesses in terms of time and travel dollars. At GAO, for example, we have used video conferencing between our Washington and field offices to save hundreds of thousands of dollars in travel costs. Video "town meetings" can greatly increase the personal contact of Senators with their constituents. Technology can be an important tool for individual members to keep close touch with grass root perceptions and concerns, and inform constituents about their positions and decisions, particularly in distant or rural areas.

- The State of North Carolina through its OPEN/net program provides citizens with live satellite broadcasts of state government events, as well as special programming, and follow-up viewer call-in sessions. OPEN/net provides North Carolina residents with heightened access to state and local government officials by offering one hour of unedited coverage of state government meetings on cable television, followed by one hour of interactive viewer phone-ins to question or respond to the meeting's officials. Thus, citizens have the opportunity to receive information, instruction, and services directly from state leaders while also being able to ask questions, make suggestions, and influence the officials. Additionally, OPEN/net has expanded its offerings to include a call-in program on state-wide issues and a program on national issues. The State of Minnesota and the State of Washington have adopted similar versions of the network.

In addition to enhancing contact with constituents, information technology can also increase the speed of interaction with a proliferating number of national, local, and international news services, who routinely gather information electronically. Internet WEB pages, for example, can provide quick dissemination of press releases and news items.

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## Getting Things Done Faster and Better

Information technology offers many opportunities to speed up information exchange and facilitate decision-making and production processes. On an elementary level, for example, it is no longer necessary to base work processes on the physical flow of paper from office to office, and from person to person. Drafts, documents, and correspondence can be reduced to electronic format and transmitted anywhere instantaneously, whether



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across the hall of a Senate office building, from a committee to a federal agency, or from Capital Hill to a Senator's home office. This can greatly increase responsiveness, speed up decision-making, and enormously reduce the burden of managing huge amounts of paper.

- Increasingly, state legislatures are drafting bills and other legislative documents using desktop computers that are usually networked. Off-the-shelf software, some of which can include capability to research and access state laws and track bills, is used for bill drafting. Some state legislatures, such as North Carolina and Wisconsin, use commercial word processing or desktop publishing software for photocomposition of bills. Many states use customized or commercial software for bill status systems that track all actions and all versions of bills and resolutions. A number of states, including Arizona and Virginia, have integrated bill drafting and bill status systems that can provide authoring, amendment processing, calendaring, publishing, printing, and viewing functions and support the creation of Internet-ready bills. In Virginia, the General Assembly has been able to reduce staffing for data entry, cut down on the amount of paper used, and reduce the amount of filing space required for printed documents.

Such state-level examples have obvious applications to speeding up the process of drafting and marking up a piece of legislation in Senate committees and managing the flow of legislation and information through the Senate.

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## The Senate Can Benefit From the Lessons Learned by Leading Private and Public Sector Organizations

The biggest issue in taking advantage of information technology is not identifying opportunities to use it. Rather, the challenge is to organize an institution to take advantage of technology. An organization's capability to manage technology effectively must be in proportion to what it is trying to achieve. Ambitious technology plans require a disciplined, integrated management approach. This is the greatest lesson to be learned from organizations that have been successful in using information technology to dramatically improve their performance.

Leading organizations have found, through experience, that successfully taking advantage of information technology depends on using a consistent set of management practices to improve mission performance.<sup>1</sup> Although these organizations applied these practices in different management

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<sup>1</sup>These practices are described in our report entitled Executive Guide: Improving Mission Performance Through Strategic Information Management and Technology—Learning From Leading Organizations (GAO/AIMD-94-113, May 1994)

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settings, our case study work shows a strong association between their consistent, effective use and successful performance outcomes.

Several of these practices have been embodied in federal law and regulation. For example, many are incorporated into the latest revision of the Office of Management and Budget's (OMB) Circular A-130, which establishes major governmentwide policies for managing information technology. The recently reauthorized Paperwork Reduction Act also contains specific provisions embodying these practices. In addition, we have used these practices as a framework for helping several federal agencies improve their information management activities.

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## Involving Top Leadership

In the information age, top executives have the responsibility not only to define the business goals of the organization, but also to initiate, mandate, and facilitate major changes in information management to support the achieving of mission goals.

The first lesson for the effective use of information technology, therefore, is to get the organization's top executives personally involved in understanding the relative costs, benefits, risks, and returns associated with information technology investments they are making decisions about. Unless top executives make these linkages, meaningful change can be slow and sometimes nearly impossible. In leading organizations, top executives make a personal commitment to improve the use of information technology and get their line managers and staff involved in critical information management decisions. Information technology has become so central to improving business operations that its management cannot be left exclusively to the technical staff. For the Senate, this means that Senators need to consider who will take on leadership roles in determining the strategic direction for the use of technology to support operations.

- Driven by budget constraints, one chief executive in our case study sample benchmarked existing systems development capabilities against industry standards. The CEO discovered that the company was only getting a small fraction of expected benefits from systems investments, while taking twice as long and four times the resources to deliver these systems compared to an industry standard. To correct this, the CEO fostered partnerships between business unit managers and IT professionals that focused on building information systems with measurable benefits. Within 3 years, some tangible payoffs from this approach were occurring. Returns on

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information technology investments rose from \$2 million to \$20 million per year, applications development and productivity improvements increased steadily, and staff resources were moved from maintaining existing computer applications to more strategic, reengineering development and support.

It is also a critical practice for top leadership to take action and maintain momentum behind the efforts being used to achieve real improvements. Taking advantage of technology means adopting new techniques, new work processes, and new ways of doing business. The organizational change that this entails typically encounter many barriers. Top leadership involvement is needed to overcome these barriers, create incentives for change, educate the organization, and set strategic direction, goals, and milestones. This hearing today is a good example of how the Senate can begin creating the momentum for change.

It is important that executives and line managers have the skills and knowledge to identify important information issues and opportunities. In the Senate, committees, individual members, and their staff—working with the Senate's information technology professionals—will need to consider how much time to invest in defining the specific business requirements and processes that need to be supported by information systems. Without this involvement, it will be impossible to create a focus on achieving lasting improvement in information management.

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## Focusing on Improving Business Processes

New technology, in and of itself, will not improve performance or solve problems. It is merely a tool—albeit a powerful one—that supports work processes. If these processes are inherently inefficient, then technology will have little substantive impact. Leading organizations know that accomplishing dramatic improvements in performance requires streamlining or fundamentally redesigning work processes.

Consequently, information technology initiatives must be focused on improving the way work is done, rather than automating outmoded work processes. The Senate needs to determine which business processes are most susceptible to improvement with information technology and what the appropriate performance goals are. Information systems projects that do not consider business process reengineering typically reach only a fraction of their potential. Using business process reengineering to drive information systems initiatives can lead to order-of-magnitude improvements in customer satisfaction and cost savings, rather than the

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marginal efficiency gains common with initiatives that use technology to do the same work, the same way—only faster.

- In one company, long customer waits and unacceptable error and rework rates were threatening successful business growth. Business unit executives and information technology professionals worked together to redesign existing work processes and systems. As a result, a customer process that used to involve 55 people, 55 procedural steps, and a 14-day service delivery was reduced to one person, one phone call, one step with a 3-day service delivery.

Using technology for process improvement efforts requires consideration of the technical platform, or architecture, of the information systems. If several process improvement efforts are pursued in an unintegrated fashion, they may result in the creation of many new information systems that are isolated from each other. This fragmentation may seriously inhibit the organization's ability to share information assets or leverage the benefits of new technology across the organization. It can lead to duplication of systems and data that will lower productivity and waste money. Rapidly evolving technologies, such as networking and imaging, that have organizationwide impact need to be integrated systematically into redesigned work processes. For example, to maximize the benefits of process improvements across an entire organization and reduce risks, it is vital to establish certain shared standards and rules for processes, data, and components. The importance of developing and managing an integrated information architecture is one reason why sound strategic information planning is so critical.

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## Establishing a Strategic Information Management Process

As noted above, information technology is a means to an end. Unless an organization defines specifically where it wants to go and what it wants to achieve, the infusion of technology will do little to improve performance or achieving critical goals. At the leading organizations we reviewed, their strategic business and information system plans were almost always linked to satisfying explicit, high-priority customer needs. This emphasis on fulfilling customer needs helps an organization understand the sources, nature, and priority of the demands on its resources.

Customers can be broken down into two groups: outsiders with whom the organization interacts and serves (external customers) and people within the organization (internal customers). The needs of both groups will be different and must be identified and assessed in order to develop an

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effective business plan and strategic information plan. In the Senate's case, the external customers include interest groups, constituents, and other parties interested in learning about the Senate's activities and providing input to the legislative process. Internal customers include members, committees, and staff.

- In one state revenue collection agency we examined, they decided to use the external customer—the taxpayer—as the focus for rethinking and redesigning its services. Using customer focus groups, comprised of individual taxpayers, small businesses, and large corporations, they redesigned the revenue collection process. Information systems and technology were used to maintain customer profiles to assist the agency in responding to questions, problems, and special situations for each taxpayer.

Following a customer-driven approach as a basis for strategic information planning provides a sound basis for developing accurate, detailed descriptions of requirements and specifications for designing and developing information systems. Prioritizing these requirements allows strategic information planning to focus on the most important customer needs and mission goals.

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## Linking Technology Investment to Performance Measurement

Leading organizations have scarce resources to spend on information technology. Consequently, they make sure that they get a high return on their dollar investments in technology. They expect meaningful bottom-line improvements in the outcomes of key business processes that are critical to meeting mission goals, reducing operational costs, and satisfying their customers. For this reason, they carefully measure the performance of their processes, including the contribution of technology to them.

Part of performance measurement involves identifying the key business processes that produce the products and service delivered to customers. By focusing on these processes, an organization can direct its attention and resources to areas that are most likely to yield dramatic improvements in outcomes meaningful to customers, rather than on low value, internally-focused activities. Equally important, successful organizations rely heavily on performance measures to operationalize mission goals and objectives, quantify problems, evaluate alternatives, allocate resources, track progress, and learn from mistakes. These measures can focus on quality of program outcomes, resource

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consumption, elapsed time (“cycle time”) of specific work processes, activities, or transactions.

- One leading organization uses a “portfolio” investment process—based on explicit decision criteria for assessing costs, benefits, and risks—to select, control, and evaluate information systems projects. As a consequence of more carefully scrutinizing proposed benefits and measuring actual performance results, the organization witnessed a 14-fold increase in the return on investment from information systems projects within 3 years.

Focusing on desired performance outcomes helps successful organizations to manage information systems projects as investments, rather than expenses. These projects are viewed as mission improvement efforts, with senior management being personally involved in project selection, control, and evaluation. The basis for deciding whether to fund a project involves an explicit set of criteria for assessing the mission benefits, risks, and costs of each project. With a disciplined investment process, organizations can identify early—and avoid—investments in projects with low potential to provide mission benefits. Conversely, without a centralized process to select, control, and evaluate information system projects as investments, organizations have become entangled in a host of difficult problems, such as major unmanaged development risks, low-value or redundant projects, and an overemphasis on maintaining old systems at the expense of using technology to redesign outmoded work processes. The Senate will need to consider what types of performance measures and investment management will be required to assure members they will get the most for their technology dollar.

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## Establishing an Organizational Focus for Information Management

Senators and their staff should consider the benefits of having one place to go for help and advice on technology issues both in the Senate and the legislative branch. Having a single organizational focal point greatly aids the process of defining, debating, and resolving the many issues involved in defining strategic information goals and user needs, managing information assets, and establishing technical standards. This single organizational focal point is particularly important in establishing and maintaining an integrated approach to information technology—one that promotes and maximizes the efficient and effective use of information resources.

Leading organizations have found that one important means for establishing a clear organizational focus for information management is to

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position a Chief Information Officer (CIO) as a senior partner with the organization's top executives. The CIO's main job is to help build an organizationwide capability to manage information and technology effectively. A CIO serves as a bridge between top executives, line management, support staff, and information technology professionals. The CIO advises top executives and senior managers on major technology decisions and investments. The CIO also plays a lead role in working with managers to define the role of information management in supporting the organization's mission, designing and managing the system architecture, and setting appropriate technical standards to facilitate the efficient and effective use of information resources.

- In one organization, prior to establishing a CIO, the cost of maintaining and enhancing existing systems consumed nearly all of the organization's information technology budget. There was no one to focus senior management attention on critical information management and technology decisions. Once an experienced CIO was put in place, technology investment decisions became highly visible and executives were held accountable for the business case underlying these decisions. The CIO focused on improving the speed, productivity, and quality of information management product and services.

A key CIO responsibility is to promote a productive relationship between users of the technology and the information management staff who support them. We found that managers in leading organizations recognize that they are the customers of information services. They assert control over the funding for information system projects. They assume responsibility for identifying specific mission goals, redesigning work processes to meet the goals, and defining the critical information and technology needed to support their work. The information management professionals, then, act as suppliers, working to support efforts to meet management objectives, make critical decisions, or solve business problems. Often, a great deal of facilitation and mediation is needed to reach a consensus on how best to balance the needs of individual business units and offices with the corporate needs of the organization. The CIO, as a member of top management, helps make this process work smoothly.

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## Steps to Take to Manage Technology Changes in the Senate

The management practices described above provide a tested framework for building the information management and technology environment that the Senate needs to achieve meaningful improvements in its operations and outcomes. By taking advantage of the lessons learned by

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leading organizations, the Senate can increase the probability of success in making a great leap forward in its own efforts, and reduce the chances of having information technology projects that fail or critical information needs that remain unmet.

On the other hand, organizing its information technology efforts under a sound management framework can help the Senate avoid pitfalls that have plagued federal agencies for so many years. Despite spending many billions of dollars on information systems, agency after agency still lacks critical information needed to analyze issues, manage resources, control expenditures, and demonstrate a good return on their technology investments. Moreover, federal agencies are falling farther behind the private sector in using information technology to streamline their operations and improve service to the public. Numerous major ongoing systems development projects have been highlighted by us, OMB, and the General Services Administration as being at high risk of not meeting requirements and/or running well over estimated costs.<sup>2</sup> Eleven of the 18 major agencies that represent 90 percent of federal IT obligations have a system designated as high risk.

Following the strategic information management practices of successful organizations will help the Senate focus on how to organize itself to address the use of technology. They will help define the right needs to be met, create the organizational capability to deliver appropriate systems, and control technology investments so that they stay focused on achieving strategic mission goals.

As a start, the Senate can analyze the strengths and weaknesses of its information management against the practices of leading organizations. Weak information management practices need to be identified and an action plan developed to strengthen them or to establish practices that are not yet in place. There are many basic questions that the Senate needs to ask itself, such as the following:

- Are members and senior staff taking an active leadership role in defining the Senate's strategic information management issues and needs?

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<sup>2</sup>See *Information Technology Investment: A Governmentwide Overview* (GAO/AIMD-95-208, July 1995); *High-Risk Series: An Overview* (GAO/HR-95-1, February 1995); and *Government Reform. Using Reengineering and Technology to Improve Government Performance* (GAO/T-OCG-95-2, Feb. 2, 1995). For summaries of chronic problems over the past decade, see *Information Resources: Summary of Federal Agencies' Information Resources Management Problems* (GAO/IMTEC-92-13F, Feb. 13, 1992); and *Information Management and Technology Issues* (GAO/OCG-93-5TR, December 1992).



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- Has the Senate assessed its current spending on information technology, comparing costs to the quantitative and qualitative benefits it receives?
  - Is there a central organizational focal point, equivalent to a Chief Information Officer, for planning and managing information technology for the Senate? And is it delivering quality, speedy, and efficient service?
  - Is there an effective, ongoing process in place—involving members and staff—to select, control, and evaluate the Senate’s portfolio of existing and planned information technology projects?
  - Are performance measures in place for tracking the impact of information technology in improving legislative and office operations, reducing administrative costs, and improving responsiveness to constituents?

To help organizations work through questions such as these, we have developed a self-assessment toolkit that provides a structured approach that enables organizations to compare their current strategic information management practices with those of successful, leading organizations.<sup>3</sup> This toolkit has recently been used by several federal agencies, such as the IRS, the Coast Guard, and the Department of Housing and Urban Affairs, to ascertain where they need to improve their information management practices. We stand ready to assist the Senate in performing such a self-assessment.

While assessing the strengths and weaknesses of its information management, the Senate should also consider how to focus its attention on developing a vision and detailed agenda for the next decade. The agenda should include the development of a strategic information management planning process for the Senate, embodying the successful practices of leading organizations. This agenda should also include awareness education for the members and staff on the uses of technology. The innovations being used in state legislatures and some foreign legislatures can provide real-world examples of powerful uses for technology in the Senate. This awareness education might also include setting up a model Senate office to demonstrate and experiment with some of ways in which work processes can be improved through information technology.

Implementing the resulting agenda is bound to be a difficult task since it will require people to change the familiar ways in which they have done their work. Managing resistance to change is a necessary part of using technology to best advantage. This is why creating an awareness of the

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<sup>3</sup>Strategic Information Management (SIM) Self-Assessment Toolkit (GAO/AIMD Exposure draft, version 1.0, Oct. 28, 1994).

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potential for technology in the legislature and a common language with which to discuss it is so important. Leading organizations spend a lot of "up front" time working with their executives, mid-level managers, and staff to show them the advantages of using technology to revamp work processes and responsibilities. They have learned that getting substantive changes implemented is a formidable task. But it is a task that must be addressed in order to share in the tremendous benefits of the information age.

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Mr. Chairman, this concludes my prepared statement. I would be pleased to address any questions that you or the other members may have.

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