GAO

GOVERNMENT REFORM

Legislation Would Strengthen Federal Management of Information and Technology

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064173/154789

Mr. Chairman and Members of the Subcommittee:

It is a pleasure to be here today to discuss the Information Technology Management Reform Act of 1995 (S. 946), introduced by you and Senator Levin. The federal government will never be able to greatly improve its operations and services to taxpayers unless it learns how to take better advantage of the tremendous opportunities offered by modern information technology. Your legislative proposal offers many constructive ways to strengthen the government's management of information and technology and help reduce the many low-value, high-risk information systems projects that continue to be developed at great expense without fully applying modern management practices.

To help frame the urgent need for reform in this area, today I will

- provide a brief overview of the pervasive nature of the government's information management problems,

- underscore how leading organizations manage information technology as contrasted with typical federal agencies, and

- highlight selected provisions in your legislative proposal that could go a long way to address key accountability and implementation problems that have been stumbling blocks towards getting real results.

The Urgent Need for Information Management Reform in the Federal Government

Growing budget pressures and widespread dissatisfaction with the government's performance in providing taxpayer services and benefits have heightened the urgency to reform how federal agencies acquire and manage information technology to modernize their operations. Federal agencies must close the large and widening gap between the public's expectations for efficient, modern service and the government's performance--a gap that is undermining the effectiveness and credibility of our government's institutions.

More and more, the American people are enjoying the everyday benefits of technology-driven service improvements in the private sector, such as 24-hour one-stop customer service numbers, automated bank tellers, overnight package delivery, and point-of-sale or telephone credit card payment. Consequently, citizens are perplexed by the government's inability to provide equivalent levels of high-quality service at reduced cost.

Much of this disparity can be attributed to the tremendous problems being encountered by federal agencies as they attempt to take advantage of information technology to improve mission process, business functions, and control costs. Most agencies have not kept pace with evolving management practices and skills necessary to (1) precisely define critical

information needs and (2) select, apply, and control changing information technologies. The result, in many cases, has been wasted resources, a frustrated public unable to get quality service, and a government ill-prepared to measure and manage its affairs in an acceptable, businesslike manner.

The results of this situation are amply detailed in the Chairman's own report, entitled "Computer Chaos," released last year. In that report, you described dozens of examples of failed information technology efforts, underscoring how the government uses old, obsolete computer systems while wasting millions of dollars in failed modernization efforts.[1]

Similarly, GAO's reviews have also found that the government's information system projects are frequently developed late, fail to work as planned, and cost millions--even hundreds of millions--more than expected. We consistently find huge, complex computer modernizations at great risk because of two basic management problems: (1) the failure to adequately select, plan, prioritize, and control system and software projects and (2) the failure to use technology to simplify, direct, and reengineer functional processes in ways that reduce costs, increase productivity, and improve service quality. These problems permeate critical government operations in several agencies, such as the Federal Aviation Administration (FAA), the Internal Revenue Service (IRS), the Department of Agriculture (USDA), the Department of Veterans Affairs (VA), the Social Security Administration (SSA), and the Department of Defense (DOD).

The administration's National Performance Review (NPR) also found that the federal government is unable to use even the most basic technology to conduct its business. Currently, the administration has 13 NPR initiatives underway designed to improve how the government is managing and using modern information technology.[2] In addition, high-risk lists maintained by the President's Office of Management and Budget (OMB), the General Services Administration (GSA), and GAO include weaknesses in financial management or information systems. Because of consistent problems we have cited in our reviews of several multibillion dollar computer modernization projects, we recently added several large modernization efforts as a major category of weaknesses to our High Risk series.[3]

In short, there is much to be done to bring the federal government into the information age. New ways of managing information and technology--when applied well--can yield dramatic successes; however, when neglected, it can produce painful failures and actually inhibit

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[1]Computer Chaos: Billions Wasted Buying Federal Computer Systems, Senator William S. Cohen, Ranking Minority Member, Subcommittee on Oversight of Government Management, Committee on Governmental Affairs, United States Senate, October 12, 1994.

[2] Reengineering Through Information Technology, Accompanying Report of the National Performance Review, Office of the Vice President, Washington, D.C., September, 1993.

[3]GAO High-Risk Series: An Overview (GAO/HR-95-1, Feb. 1995).

improvement efforts. Despite obligations exceeding $200 billion on information management and systems in the last 12 years, the government has too little evidence of meaningful returns. The consequences--poor service quality, high costs, low productivity, unnecessary risks, and unexploited opportunities--cannot continue in today's environment.

Consequently, federal executives are expressing a growing interest in finding practical, workable solutions to the myriad of complex information problems they face in their organizations. To help federal agencies achieve their potential for improvement, we studied a number of successful private and public sector organizations to learn how they consistently applied information technology to improve mission performance.

Best Practices Offer Insight Into Needed Management Reforms

In our recent report on strategic information management "best practices,"[4] we described an integrated set of fundamental management practices that were instrumental to the success of leading public and private organizations. The most critical factor was the leadership and personal commitment of top executives to improve strategic information management. These executives recognized that technology is integral to providing information for effective decision-making and supporting the work processes that accomplish the organizations' mission. They actively spent time to reduce risks and maximize return on scarce investment funds.

These leaders managed through three fundamental areas of practice. The integrated management approach taken by these leading organizations contrasts sharply with what currently exists in the federal government.

- *First, they decided to work differently* by quantitatively assessing performance against the best in the world and recognizing that program managers and stakeholders need to be held accountable for using information technology well. In contrast, federal agencies frequently fail to benchmark themselves against the best, often delegate information issues to technical staff, and sustain rates of management turnover that seriously hinder true ownership and accountability.

- *Second, they directed scarce resources toward high-value uses* by reengineering critical functions and carefully controlling and evaluating the results of information systems spending through specific cost and performance measures. Federal agencies, on the other hand, often buy computer hardware before they evaluate their business functions, lack discipline and accountability for their investments, and fail to rigorously monitor the results produced.

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[4]Executive Guide: Improving Mission Performance Through Strategic Information Management and Technology (GAO/AIMD-94-115, May 1994).

● *Third, they supported major cost reduction and service improvement efforts* with the up-to-date professional skills and organizational roles and responsibilities required to do the job. The federal government all too often is held back by an antiquated skill base and confused roles and responsibilities that consistently inhibit the effectiveness of major system development and modernization efforts.

Figure 1 provides more detail on the specific practices within these management areas.

Figure 1: Key Management Areas and Fundamental Practices

Decide to Change	Direct Change	Support Change
1　Recognize and communicate the urgency to change information management practices 2　Get line management involved and create ownership 3　Take action and maintain momentum	4　Anchor strategic planning in customer needs and mission goals 5　Measure the performance of key mission delivery processes 6　Focus on process improvement in the context of an architecture 7　Manage information systems projects as investments 8　Integrate the planning, budgeting, and evaluation processes	9　Establish customer/supplier relationships between line and information management professionals 10　Position a Chief Information Officer as a senior management partner 11　Upgrade skills and knowledge of line and information management professionals

Our study of leading organizations indicated that meaningful short-term and long-term results can accrue if these management practices are applied over time. Figure 2 shows examples of some short-term results (generally occurring within 1 to 2 years), while Figure 3 demonstrates long-term results largely attributable to strategic information management "best practices" cited in our report.

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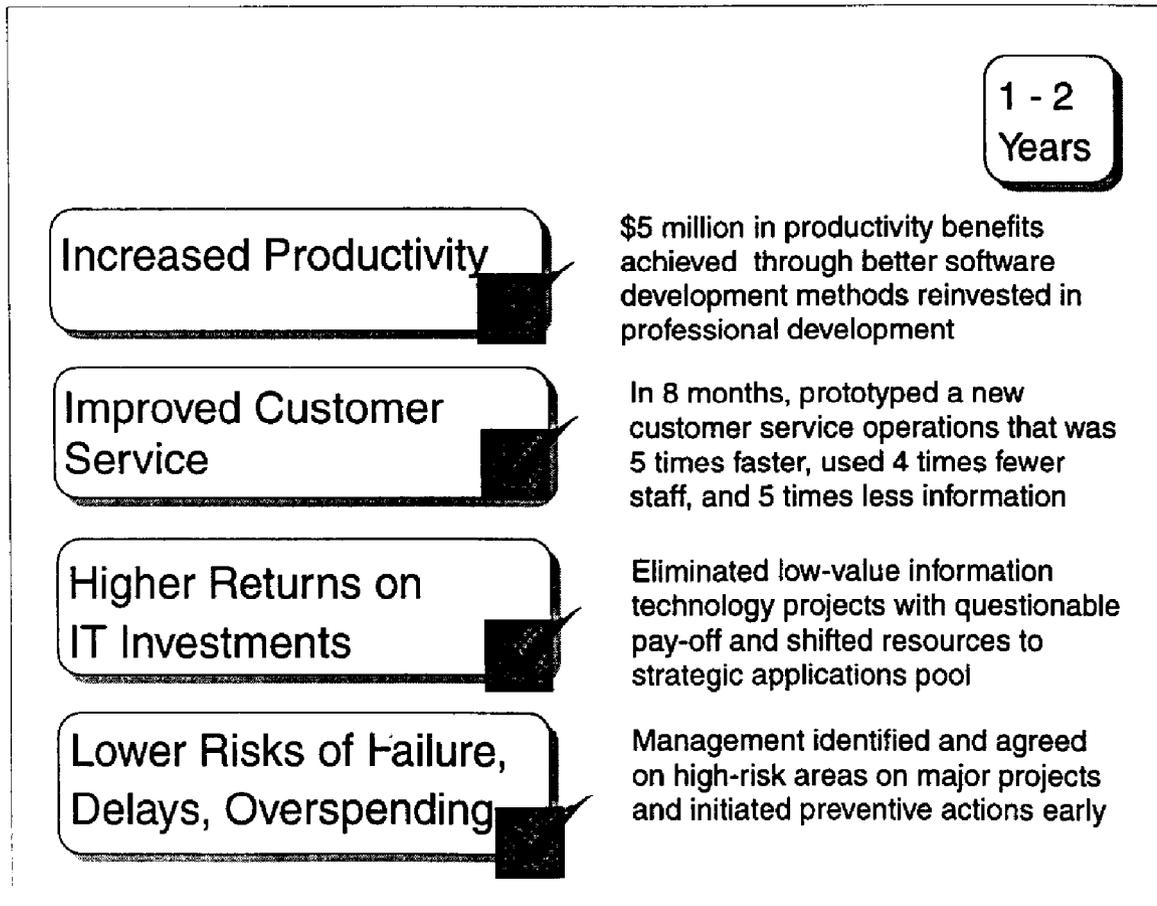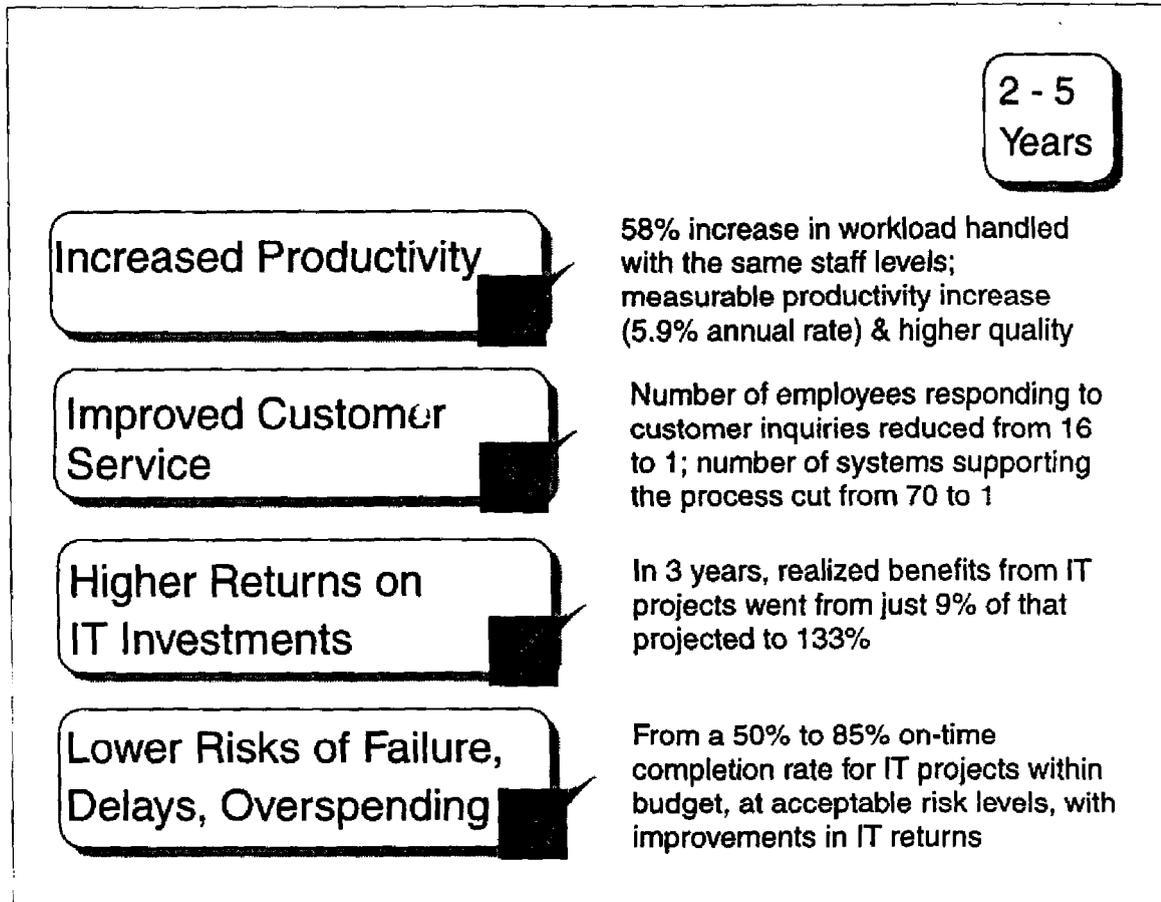**Figure 2: Examples of Short-term Results Cited**
By Leading Organizations

	1 - 2 Years
Increased Productivity	$5 million in productivity benefits achieved through better software development methods reinvested in professional development
Improved Customer Service	In 8 months, prototyped a new customer service operations that was 5 times faster, used 4 times fewer staff, and 5 times less information
Higher Returns on IT Investments	Eliminated low-value information technology projects with questionable pay-off and shifted resources to strategic applications pool
Lower Risks of Failure, Delays, Overspending	Management identified and agreed on high-risk areas on major projects and initiated preventive actions early

Figure 3: **Examples of Long-term Results Cited by Leading Organizations**

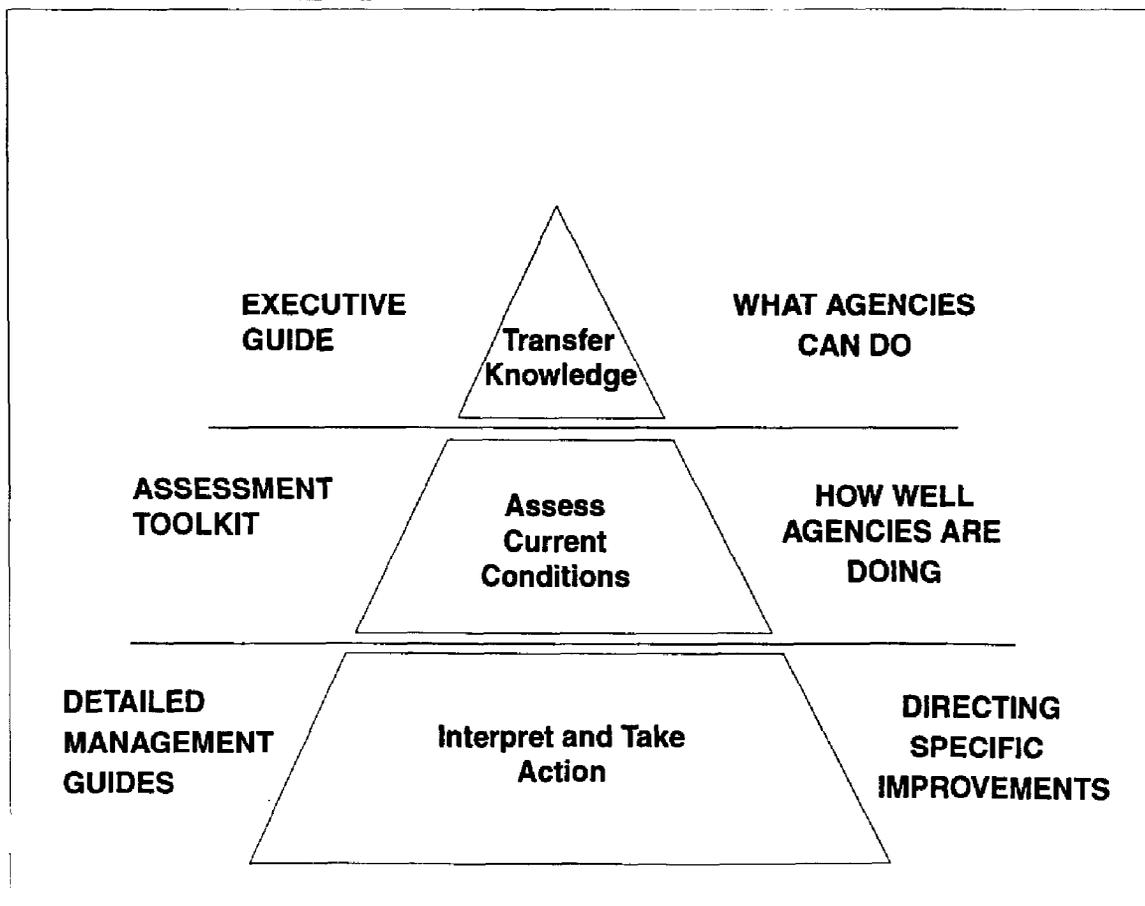|	**2 - 5 Years**
Increased Productivity	58% increase in workload handled with the same staff levels; measurable productivity increase (5.9% annual rate) & higher quality
Improved Customer Service	Number of employees responding to customer inquiries reduced from 16 to 1; number of systems supporting the process cut from 70 to 1
Higher Returns on IT Investments	In 3 years, realized benefits from IT projects went from just 9% of that projected to 133%
Lower Risks of Failure, Delays, Overspending	From a 50% to 85% on-time completion rate for IT projects within budget, at acceptable risk levels, with improvements in IT returns

Implementing these practices in the federal environment is not only possible, but is already beginning in several agencies. In fact, we found similar practices being used in a number of federal agencies that we studied for comparison purposes. However, none of the federal case study organizations had all the practices in place or used them in tandem as an integrated package. This was a key difference with the leading organizations who, instead, used the practices to implement new ways of doing business as a cohesive set of mutually reinforcing activities, not ad hoc efforts.

We have found that many agencies need and want help to close the cost and performance gap with leading organizations. In fact, the federal community's response to our report has been overwhelmingly positive. We have received requests for over 16,500 copies and have briefed over 2,000 federal decisionmakers on our work. This demand highlights the quest for information about potential solutions and an interest in change.

Besides sharing our research findings, we are taking steps to ensure that federal agencies have the opportunity to apply what we have learned to their own organizations. We have developed a methodology for agencies to use in conducting self-assessments of their strategic information management practices by benchmarking their practices against the characteristics of our case study organizations. The objective is to evaluate strengths and weaknesses in current information management practices and to devise and execute widely supported corrective action plans that focus on results.

Our approach has already been used by the IRS, Coast Guard, and HUD, and self-initiated evaluations are in process at several other agencies. We are also working on additional management guides to help managers direct other specific assessments and improvement efforts, such as information management performance measures and business process analysis. We are also working jointly with OMB on an Information Technology Investment Guide that will be available shortly. Figure 4 illustrates our approach for facilitating the assessment and implementation of these practices into government agencies.

Figure 4: Implementing Strategic Information Management Best Practices

EXECUTIVE GUIDE	Transfer Knowledge	**WHAT AGENCIES CAN DO**
ASSESSMENT TOOLKIT	Assess Current Conditions	**HOW WELL AGENCIES ARE DOING**
DETAILED MANAGEMENT GUIDES	Interpret and Take Action	**DIRECTING SPECIFIC IMPROVEMENTS**

Key Legislative Provisions Are Consistent
With Practices of Leading Organizations

Mr. Chairman, you and Senator Levin have taken a positive step in creating a constructive dialogue on how to tackle key root causes of the government's information management problems. Your legislative proposal can help tremendously to solidify and enhance efforts to institute the best practices of leading organizations into the federal government. First, your proposal makes an important step forward in fundamentally changing the government's focus of information technology from a technical issue to a management issue. Second, it makes direct linkages between budgetary and performance decisions impacting the approval, continuation, or termination of major information technology investments. Third, provisions in your legislation build upon important changes recently made to other statutes and executive policy guidance.[5] In particular, it further amplifies and strengthens key information management provisions of the Paperwork Reduction Act of 1995. Collectively, these changes can begin to establish a solid foundation for instituting modern management practices throughout the federal government.

I might add, Mr. Chairman, that there are important benefits associated with having a strong statutory base for public sector management tenants as well. Legislative foundations transcend presidential administrations, fluctuating policy agendas, and the frequent turnover of senior appointees in the executive branch. Having congressional consensus helps to ensure a continuity of purpose over time and allows healthy updates to rapidly changing management and information technology disciplines.

In addition, legislative provisions provide the Congress with effective oversight tools to ensure that agency heads know how they are being held accountable for ensuring that their programs are well managed, funds are properly spent, and initiatives are achieving the intended results. And finally, as prime users of performance and financial information, the Congress has a major interest in ensuring that agencies give the proper attention to addressing critical management issues.

Recognizing that your bill covers a wide range of reforms, let me now focus on some of the key similarities between your legislative proposal and many of the suggestions we have made for improving the government's management of information and technology.

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[5]These include the Chief Financial Officers Act (CFO) of 1990, the Government Performance and Results Act (GPRA) of 1993, the Government Management Reform Act of 1994, the Federal Acquisition Streamlining Act (FASA) of 1994, the Paperwork Reduction Act (PRA) of 1995, and the OMB's revised Circular A-130--the basic policy circular for management of federal information resources.

Holding Agency Executives Accountable for IT Solutions
That Effectively Support Mission Performance

Your legislative proposal clearly makes the agency head and the executive management team accountable for ensuring that information technology investments will maximize mission benefits. For instance, agency leaders are to develop, maintain, and oversee the implementation of information resources management (IRM) plans that are consistent with the overall strategic plan prepared under the Government Performance and Results Act (GPRA). Agency heads are also held accountable for attaining or failing to attain success in achieving objectives established for information technology investments. Moreover, the OMB Director is empowered to take actions in instances of poor agency performance, such as reducing budgets or withdrawing the agency's authority to contract directly for information technology.

These provisions appropriately emphasize that information management is an integral part of the government's overall management responsibility, and they help ensure that senior managers are responsible for appropriately managing the risks associated with major information system initiatives. Agency leadership should be held accountable for understanding what their key information assets are and for protecting the value of these assets.

Executives of successful private and public firms we studied approached information management issues in a seamless fashion: they recognized that technology is integral to providing the information for effective decision-making and supporting the work processes that accomplish the organization's mission. Chief executives maintained a strong leadership role and exhibited personal commitment to strategic information management. Ensuring accountability and involvement of senior executives worked because it immediately focused information management decision-making and systems development activities on measurable mission outcomes. This helped ensure more comprehensive assessments of organizational risks and benefits projections and greater attention to improving performance.

Moreover, creating executive and line management ownership and support for information management and technology decisions prevents the "pushing a string" problem that results when IRM departments try too hard to run the mission programs. In several case study organizations we examined, major information technology projects always had executive-level sponsors who were actively involved in major project decisions that consider cost, schedule, and real versus projected performance outcomes.

Using Chief Information Officers as Part of
Executive Management Teams

Your proposal calls for the creation of Chief Information Officers (CIO) in the 24 major federal agencies covered by the CFO Act, plus the Central Intelligence Agency. The proposal is especially clear on the critical senior management role that a CIO should have in assisting the head of the agency and the Chief Financial Officer on such matters as (1) establishing

control and management processes for technology investment decisions, (2) ensuring that agency mission-related and administrative processes are reviewed and that improvement opportunities are identified and made before approving automated systems support, (3) monitoring IT project acquisition costs and schedules, and (4) providing annual information technology performance reports to the head of the agency. To give the position the stature and focus it needs, your bill requires that the agency head appoint the CIO, that this position be at the executive level (ES-IV), and that the CIO not be assigned any non-IRM related duties.

Because of the intrinsic value that this position can bring to persistent problems in the management and use of information technology that prevail across the federal government, we strongly support this provision. In previous testimonies, we have recommended that CIOs need to be established in major departments and agencies.[6]

The CIO brings a necessary focus and level of accountability for information technology results that has been missing under the Designated Senior Official for IRM approach outlined in the PRA. All too often, top senior IRM Officials in the government have additional time-consuming responsibilities and duties outside the realm of information management, such as personnel, administrative services, space and property management, and contracting. As a result, information management responsibilities are often delegated to a lower management position that is not a part of the top executive management team.

The use of CIOs has become a common management practice in most leading private corporations, and, according to a recent survey, 40 state governments report having CIOs.[7] Although specific roles and responsibilities vary according to organizational structures, it is not uncommon to find both private and public sector CIOs actively involved in strategic business planning processes to identify opportunities for performance improvement and cost savings that can be realized through the application of information technology. In the federal government, there is a growing recognition of the value of having CIOs and a few agencies have already created these positions.

The development of the CIO position in leading organizations fits with the integration of information technology into the organization as a whole. As the focus of applications development and system support has rapidly expanded into business and mission functions-- and the size of information resources has grown--leading organizations have recognized the

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[6]Improving Government: Actions Needed to Sustain and Enhance Management Reforms (GAO/T-OCG-94-1, Jan. 27, 1994); Paperwork Reduction Act: Opportunity to Strengthen Government's Management of Information and Technology (GAO/T-AIMD/GGD-94-126, May 19, 1994); Government Reform: Using Reengineering and Technology to Improve Government Performance (GAO/T-OCG-95-2, Feb. 2, 1995).

[7]The State Chief Information Officer, National Association of State Information Resource Executives, May 1995.

need for a dedicated managerial position focused on ensuring that information systems decisions are contributing to business and mission results.

The critical success factors for successful CIOs include:

- strong sponsorship from the CEO and other senior executives who recognize the value of using the CIO to focus and advise the senior management team on high-value issues, decisions, and information technology investments,

- the ability of the CIO to communicate the criticality of information management and technology investments to cost, quality, and speed of delivery of mission performance,

- having defined skills, role, and responsibilities for the CIO so that the occupant of the position does not just hold a new title in an organizational chart, represents more than just a narrow technical specialist, and is empowered to set and enforce organizationwide information management and technology standards, and

- the ability of the CIO to deliver low-cost, high-quality information technology products and services that provide both short-term performance improvements and long-term value and stability to consistently successful business results.

The vital area of information technology expenditure also warrants a new level of scrutiny--governmentwide--to determine just where risks are highest and how they can be managed more effectively. In this regard, we have recommended that a central CIO be established at the governmentwide level.[8] Many information technology projects pursued by the federal government are of sufficient size, risk, and importance to warrant careful attention by the Executive Office of the President. The creation of a central CIO for the federal government could also provide a stronger, central point of coordination for the full range of governmentwide information management and technology issues presently handled by several different executive agencies. These issues include (1) reengineering and/or consolidating interagency or governmentwide process and technology infrastructure, (2) managing shared assets, (3) and evaluating high-risk, complex information systems modernization efforts.

We do suggest, however, that strong consideration be given to the need to clearly establish specific qualifications and credentials critical to the success of the proposed CIO positions. Essential characteristics commonly associated with successful CIOs include requisite experience defining and applying technology solutions to business opportunities and problems, proven leadership and management capabilities, and the ability to develop and enforce organizationwide technology architectures.

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[8]Government Reform: Using Reengineering and Technology to Improve Government Performance (GAO/T-OCG-95-2, Feb. 2, 1995).

Making Information Technology Decisions Contingent
Upon Assessments of Existing Processes

It is imperative that agencies begin their analyses of information technology proposals *after* business and core mission functions have been thoroughly analyzed for efficiency and effectiveness using process modeling techniques. Without first considering reengineering the work or mission delivery processes associated with a proposed IT acquisition, agencies cannot be sure of the greatest technology improvement payoff. Your proposed legislation is very clear on the need for agencies to conduct process analyses and consider reengineering changes before implementing information technology solutions. It specifically requires that the agency head certify that mission-related and administrative processes are appropriately reviewed and performance measures established before proceeding with information systems acquisitions.

Business process reengineering is perhaps the most frequently discussed improvement technique today. Its attraction is in its promise of achieving high levels of improvement in cost, quality, and timeliness that can help propel an organization into a leadership position in its market. Our work with leading organizations indicates that accomplishing significant improvements in performance almost always requires that critical work processes be redesigned or reengineered in conjunction with the application of information technology.

Information technology projects aimed at improving performance that do not involve process improvement may fail to yield any significant, long-term benefits. Our reviews of major system modernization efforts across the government have shown that many federal agencies continue to propose and implement information technology solutions that automate existing inefficient procedures and processes of doing business.[9] This results in the expenditure of millions of dollars with little or no benefit and lost opportunities to fundamentally improve government performance and public satisfaction.

Using Investment Approaches to Information Technology
Decisions That Stress Evaluations of Risks and Returns

By requiring agency heads and OMB to apply sound methods and approaches for realistically assessing and managing risks and maximizing mission benefits accruing from information technology, your legislation adopts an investment-oriented approach for selecting, controlling, and evaluating the results of information technology spending. Provisions specifically call for these assessments to be integrated with budget, financial, and program management decisions to ensure a tight linkage among proposed information technology projects, changes in mission outcomes and performance expectations, and spending plans. Equally important, your legislation suggests comprehensive risk and benefit measures that require agencies to consider more than just financial issues in cost-benefit analyses and risk assessments.

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[9]Reengineering: Opportunities to Improve (GAO/AIMD-95-67R, Jan. 6, 1995); (GAO/T-OCG-95-2, Feb. 2, 1995.)

This approach is directly in line with leading practices used by successful private and public sector organizations we have studied. Senior executives in these organizations make information technology decisions using explicit criteria assessing mission benefits, risks, and costs of each project. As such, information technology projects are treated more like investments rather than as expenses. Quantitative and qualitative cost, benefit, and risk analyses often underpin the assessment criteria. This approach concentrates and broadens top management's attention on assessing and managing risk and regulating tradeoffs between continued funding of existing operations and developing new performance capabilities.

Treating information technology decisions as investments can help bring order and rigor to ambiguous budget debates over the impact of information technology on mission outcomes. Information systems decisions can be tightly linked to program budget decisions by focusing on project outcomes and mission improvement needs. For example, in one private sector firm we studied, the combination of senior management involvement; explicit criteria for measuring costs, benefits, and risks; and consistent evaluation of IT projects until completion resulted in a 14-fold increase in return on IT investments over a 3-year period.

Moreover, by using tools and techniques associated with this approach, senior management can evaluate the agency's entire "portfolio" of proposed systems investments to ensure that the best mix of projects is being pursued to help achieve the overall business strategy and meet pressing performance improvement goals. Having agencies focus on net benefits, such as cost reductions, decreases in program cycle time, increases in productivity, and enhanced service capability, can help ensure that technology investments are evaluated for their impact on performance as well as cost and schedule milestones.

Measuring Information Technology Performance in Mission Outcome and Results-oriented Terms

Your legislation stresses the need for measuring the contribution of information technology to improvements in mission performance by requiring the CIO to (1) devise measures that can be used to assess how information systems are contributing to program performance, (2) monitor and assess, in conjunction with senior managers, the results of technology projects under development and in operation, and (3) prepare annual reports on the effectiveness of technology solutions in improving program performance outcomes.

The government is moving towards accountability for results by focusing on program and mission outcomes, not output measures that quantify level of activities. Information technology is an important enabler of mission-related processes, creating opportunities for improvements in productivity and service quality to customers. With the provisions in your legislation, agencies will be increasingly called upon to demonstrate, through quantitative and qualitative measures, how information technology investments contribute to mission outcome and performance improvement in addition to measures related to technical efficiency and cost and schedule goals.

This approach is very much in line with that of leading public and private organizations.[10] Our research revealed that these organizations use standard measurement practices that focus on program outcomes, resource consumption, and the elapsed (or cycle) time of specific work processes, activities, or transactions. They measure the financial, mission, and organizational impact of their information systems investments rigorously, often benchmarking them against other organizations' performance, their own business needs, and customer expectations. Accountability structures are put into place to link priorities, goals, and plans to daily operational activities and to help ensure that day-to-day activities contribute to the mission, goals, and objectives defined in the organization's performance improvement strategy.

Challenges For Implementing Governmentwide Information Management Reform

Our experience with other management reform legislation, such as the CFO Act and the Government Performance and Results Act, shows that changes in governmentwide information management and technology reform will not occur overnight. As with any change-oriented approach, proposals in the legislation will take significant effort and continuous commitment to implement. Even our research of leading organizations indicates that a 3 to 5 year window is essential for successful implementation of integrated management practices, such as those contained in your bill.

The passage of the CFO Act in 1990 and its subsequent implementation over the last 5 years has yielded some valuable "lessons learned" which are applicable to the current environment confronting information management reforms. First, it is clear that legislation can make a difference in implementing change. The CFO Act has provided continuity for financial management reform that was absent in the past. Second, effective leadership within the agencies is paramount to successfully implement change. Without the right talent and people in top financial and CFO positions, the progress made to date would have been very difficult to achieve. Third, legislative provisions can give a reform effort critically needed focus. CFOs and Inspectors General have had a common base to work from to improve financial data and management controls. These same lessons can apply equally to legislation on information management reform.

Still, both short- and long-term benefits--higher returns on information technology investments and lower risks of failure, delay, and overspending--can accrue. Clearly, as your legislative proposal demonstrates, the debate is shifting from *whether* to change information management practices to *what* exactly to change and *how* to do it. What is important--which your legislation emphasizes--is that a combination of management practices, working in an integrated fashion, must be in place for change to be successful. For example, the

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[10]Government Reform: Goal-Setting and Performance (GAO/AIMD/GGD-95-130R, March 27, 1995); Managing For Results: Critical Actions for Measuring Performance (GAO/T-GGD/AIMD-95-187, June 20, 1995)

appointment of a CIO, by itself, is not a total solution to an organization's information management problems nor can it ensure successful outcomes. The position cannot become a substitute for institutionalized and effective information technology management processes that involve all top executives working as an effective management team. CIO positions have, in many cases, become untenable or controversial largely because they are overemphasized, inappropriately staffed, lack adequate authority, and do not focus exclusively on strategic information management issues.

Moreover, there is growing concern about the need to recruit and improve the existing skills of information technology and management professionals in government. This, too, will not be easy because of competition against better salaries in the private sector and budget cuts that will no doubt affect training and education programs. As a result, it may be necessary for agency leaders to employ innovative approaches to draw in needed talent. Your legislative proposal acknowledges this by creating the Federal Information Council. This council allows the creation of interagency IRM review groups and special advisory groups-- which may include industry representatives--to help resolve problems with complex, high-risk systems development projects. In addition, agency heads can establish one or more independent technical review committees, comprised of agency and outside experts, to provide advice on specific IT projects.

In short, Mr. Chairman, there is an urgent need to change how the government is managing its information and technology assets because of (1) the opportunities that modern management practices and technology offer to significantly improve government services to the taxpayer and (2) to control the high risks and costs and produce better returns on the significant federal investment being made in information technology.

The key at this critical time of government downsizing, as agencies seek to streamline operations and processes to improve effectiveness while spending less, is to do so in a focused, planned way that reinforces accountability for modern management systems that use technology to produce real results. This legislation can make an invaluable contribution by bringing the information management practices of leading organizations into the government to help federal programs work better and cost less.

This concludes my prepared testimony. We look forward to working with you and the Subcommittee in your efforts to improve the management of federal programs. I would be glad to answer any questions you or other members of the Subcommittee may have at this time.

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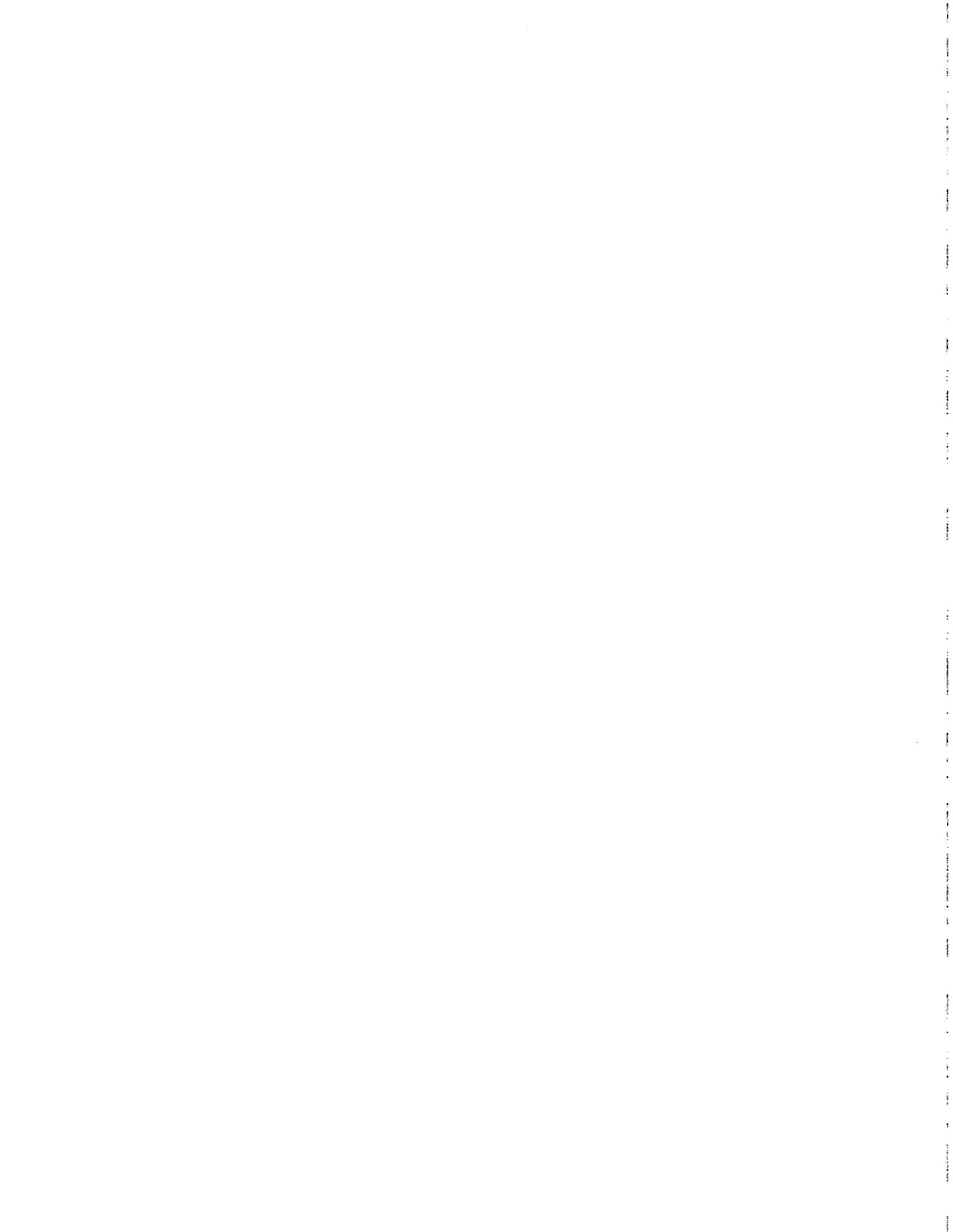
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