

9. INTEGRATING SERVICES WITH INFORMATION TECHNOLOGY

This year the President is proposing to spend nearly \$60 billion for computers, software, and services used to deliver benefits and services to American citizens. It is a priority for agencies to focus this investment on the achievement of goals that will result in benefits to the American people.

There are three major efforts underway to assure the Federal Government's investment in Information Technology brings the greatest value to the public:

- Management for Results
- Successful Uses of Electronic Government
- Modernization Blueprints

MANAGEMENT FOR RESULTS

The Clinger-Cohen Act of 1996 calls for Federal departments and agencies to find ways to use technology to accomplish their mission; to operate more proficiently; and to make better purchasing decisions. The Act requires the Director of the Office of Management and Budget (OMB) to submit a report to the Congress on the results we're achieving from Federal IT spending. This Budget chapter fulfills the statutory reporting requirements of the Clinger-Cohen Act through Chapter 9, Table 9-1, Effectiveness of Agency's IT Management and E-Gov Processes, included on the CD-ROM, which summarizes the results of IT management processes at major agencies.

As a result of the Administration's oversight, agencies' capital planning activities have improved. Agencies are now better able to identify "net program performance benefits achieved" by their IT investments and "how the benefits relate to the accomplishments of the goals" of their agency. However, much work remains to move beyond good explanations to good—and measurable—results.

Performance of Government.—Agencies need proper management practices and support systems to deliver projects on time, within budget, and performing as expected. Once the IT projects represented by these investments move from planning to operations, agencies must be able to determine whether or not the projects continue to accomplish the intended outcome while staying within the approved budget.

These projects must have:

- Sound risk management strategies; and
- Strong links to agency mission and strategic goals.

While ensuring the projects are:

- On schedule and within the approved budget;
- Achieving performance goals; and
- Included in the modernization blueprint for the agency, called an enterprise architecture

The Government continues to improve productivity and demonstrate results from its IT investments. The Administration requires all cabinet agencies to prepare "business cases" for any planned or operational system that is critical to the mission of the agency. These investment rationales are graded on specific criteria including:

- the value they will provide to the agency
- the likelihood they will succeed
- the cyber-security plans planned or in place
- the acquisition strategy
- the project management plans
- the analysis of viable alternatives

Government agencies continue to make significant improvement in their efforts to guarantee the prudent expenditure of taxpayer dollars. All of the 59 business cases submitted by the Department of Veterans Affairs passed the scoring criteria without revision of the original business cases. To achieve this, VA developed a project management agenda and trained more than 500 project managers while instituting a rigorous internal review process to pre-score their business cases before submission to OMB.

The Administration continues to monitor the performance of its IT projects long after the original budget request is made. For example, of the \$60 billion in the 2005 Budget for IT investments, 621 major projects representing \$22 billion are currently on the "Management Watch List." This list includes mission-critical projects needing improvement in the areas of performance measures, earned value management and/or IT security. Agencies must remediate the shortfalls identified in their business cases or the Administration will not support the expenditures until agencies have demonstrated their ability to address these weaknesses.

The Agency IT Investment Portfolios (available in Exhibit 53 on the Internet at www.whitehouse.gov/OMB) provide details of the Administration's proposed 2005 IT investments. Related documents on IT security and Electronic Government (E-Government) will also be available at www.whitehouse.gov/OMB and will be published by March 1, 2004.

As part of the process by which the Administration evaluates IT business cases, investments are studied to determine whether there is duplication across Government entities. If an investment is found to be duplicative, the Administration brings together the appropriate agencies and helps them consider broad based solutions that will allow inter-agency data sharing and cooperation to build a single system, rather than maintaining separate investments.

This Administration leverages Government buying power while reducing redundant purchases. As an example, the Government is developing common solutions that meet multiple agencies' needs in the areas of Financial Management and Human Resources.

As part of its management responsibilities, OMB continued using one of the key authorities established in section 5113 "Enforcement of Accountability" of the Clinger-Cohen Act (CCA). Under this authority, the Director is required to evaluate information resources management practices of the executive agencies with respect to IT investments. As part of this evaluation, OMB issued one Clinger-Cohen letter, M-03-14 "Reducing Cost & Improving Quality in Federal Purchases of Commercial Software" (06/02/2003). The purpose of this letter was to coordinate and leverage the buying power of Government by creating the Software Managed and Acquired on the Right Terms (SmartBUY) initiative. This letter is available at www.whitehouse.gov/omb/memoranda/m03-14.html.

In addition, management guidance titled "Streamlining Authentication and Identity Management" was issued on July 3, 2003. This memorandum provides agency Chief Information Officers (CIOs) with the appropriate guidance to coordinate and consolidate investments related to authentication and identity management and is available at www.whitehouse.gov/omb/inforeg/eaauth.pdf.

The Government IT Workforce.—As part of the President's Management Agenda (PMA), analysis is underway to develop a strategy for the recruitment, development, retention, and management of the Federal IT workforce and to insure that expenditures in technology are professionally delivered and managed. The immediate focus is to assess the current "bench strength" among existing employees, identify gaps in needed skills, and develop plans of action to fill critical workforce needs for project managers, solution architects, security specialists, and other need areas as identified in the Federal workforce survey completed in the fall of 2003 by the Office of Personnel Management (OPM) and the Federal CIO Council.

Electronic Government.—Expanding Electronic Government makes it easier for citizens and businesses to interact with their Government and saves taxpayer dollars by reducing the cost of delivering those services. The Administration developed specific E-Government projects and an overall agenda of bringing the principles of E-Government to all Government programs, allowing taxpayers to conduct business with Government in their own time and on their own terms.

For the past five years the Government has been aggressively implementing the Government Paperwork Elimination Act. The Act required the Government to provide the option for electronic filing and electronic signature for the full range of Government activities unless it is not practicable to do so. During the first two years of the Act's implementation, 1,800 transactions could be conducted electronically. As of December 2003, 4,000 government transactions could be con-

ducted electronically. This represents 57% of the 7,000 potential transactions between citizens and their government. For instance:

- The Department of Agriculture is implementing an agency-wide system to conduct business electronically; and
- The Department of Transportation established an efficient online method for motor carriers to apply for operating authority and register for a USDOT number.

As the Government continues to use new technology our business processes continue to improve. One specific example is the way we keep records. The National Archives and Records Administration (NARA) will preserve our electronic records for future generations just as it has for paper records in the past. NARA's Electronic Records Archives project will preserve and provide access to digital records from Federal agencies. NARA's work on the Electronic Records Management initiative will provide agencies with the policies and procedures necessary for managing these electronic records. Because of this foresight, historians will be assured of continuing access to essential evidence documenting the rights of American citizens, the actions of Federal officials, and the national experience.

Securing Government Systems.—Over the last three years the Federal Government has improved considerably in identifying and resolving long-standing, serious, and pervasive IT security problems. Agencies report both annually and quarterly on their efforts to address IT security weaknesses against key IT security performance measures.

As one example, the *Environmental Protection Agency* has excelled at protecting their information technology assets. EPA has evaluated the risks to, and certified the security of, its IT systems. Beyond documentation, however, EPA has implemented quantifiable measures of repelled attacks and blocked viruses. Internal scorecards are used to measure success and managers are encouraged to compete for top scores. By focusing on cyber-security, EPA has taken great steps to protect the integrity of the agency.

In addition to assessing each agency's IT security performance, the Administration also established the following three Government-wide goals in the 2004 President's Budget.

- Goal 1.—By the end of calendar year 2003, all Federal agencies were to have created a central remediation process to ensure that program and system level IT security weaknesses, once identified, are tracked and corrected. Each agency Inspector General (IG) was to verify whether or not the agency had a satisfactory IT security remediation process in place.

Status.—While each Federal agency does have an IT security remediation process, the maturity of those processes vary greatly. Out of 26 Federal agencies, 10 agencies have a remediation process verified by their IG as meeting the necessary criteria. The Administration will continue to work

with the remaining Federal agencies to achieve this goal by the end of calendar year 2004.

- Goal 2.—By the end of calendar year 2003, 80 percent of Federal IT systems were to be certified and accredited.

Status.—Based on agencies' reports 61 percent of Federal IT systems were certified and accredited at the end of calendar year 2003. At the end of calendar year 2002, only 47 percent had met this goal. Many agencies are not adequately prioritizing their IT expenditures to be assured that significant IT security weaknesses are appropriately addressed.

- Goal 3.—By the end of calendar year 2003, 80 percent of the Federal Government's 2004 major IT systems were to have appropriately integrated security into the lifecycle of the expenditures.

Status.—Based on agencies' reports for 2003, 75 percent of Federal IT systems planned and budgeted for IT security requirements as part of the overall development or maintenance. At the end of calendar year 2002, this number was slightly more than 60 percent. While agencies have made improvements in integrating security into new IT systems, significant problems remain, particularly in ensuring security of legacy systems.

Additionally, the Federal Government has placed increased emphasis on prevention of negative impacts from worms and viruses through the installation of patches for known vulnerabilities. Further, improved information sharing allows agencies to rapidly identify and respond to cyber threats and critical vulnerabilities. These steps have led to stronger Government-wide processes for intrusion detection and response.

While notable progress in resolving IT security weaknesses has been made, challenges remain and new threats and vulnerabilities continue to materialize. Agencies continue to improve the security of the information and systems supporting the Federal Government's missions. To address the above challenges the Administration works with agencies, Inspectors General, the Congress and the General Accounting Office (GAO) to assure appropriate cost-effective IT security programs, policies, and procedures are in place to protect Government systems.

Additional information and detail concerning the Federal Government's IT security program and agency IT security performance can be found in *OMB's Annual Report to Congress on IT Security*. The next such report will be issued by March 1, 2004 and will be made available on OMB's website.

Protecting Privacy.—The promise of E-Government can only be realized if people use the services provided by the Government. Citizens will only use these services if they trust their information will be protected and their privacy maintained. The obligation to maintain the public's trust is demonstrated by the passage of the E-Government Act, which reflects the Government's commitment to the privacy and security of the citizen's confidential information. Specifically, the E-Government Act requires agencies, as they develop new information technology systems or information collections, to:

- Conduct Privacy Impact Assessments (PIAs) taking privacy into consideration in the design of the system or in any information collection activities.
- Publicly post standardized web privacy policies regarding the handling of personal information provided electronically to the Government.

The greater challenge for Government is clearly the PIAs. These assessments demand the combined analysis of individuals with technical, programmatic and legal expertise. With varying degrees of success, agencies attempted to comply with the new statutory mandate. Going forward, the Government must continue to meet the challenges presented by privacy concerns and ensure PIAs include consideration of alternative business processes or systems designs. The Administration anticipates greater transparency on the part of Government agencies as the PIA effort continues. This will inspire greater trust in and greater use of E-Government products.

Making Government Accessible to All.—The Government is making its websites and information technology accessible to persons with disabilities by providing new standards for accessibility, developed in accordance with Section 508 of the Rehabilitation Act of 1973. These new standards assume access to Government information and data is a civil right. The Government is engaged in a variety of activities to fulfill the requirements that agencies, industry, and the public understand these standards. This year, the Administration conducted extensive outreach with industry, the public, and Federal agencies to assist in implementation. Additionally, the *General Services Administration* (GSA) developed a web-based tool to help agencies procure information technology accessible to persons with disabilities. In the next year, GSA will issue a survey to assess how Federal agencies are implementing the Section 508 accessibility standards and to allow agencies to share best practices.

SUCCESSFUL USES OF ELECTRONIC GOVERNMENT

E-Government seeks to leverage information technologies to make Government services available to the citizen while guaranteeing the security of those systems, the privacy of citizen information and the prudent use of taxpayer money. E-Government is about helping

the citizens, businesses and Government conduct business with one another more efficiently and effectively.

Previously, the agency was the focus of the process because the citizens had to adjust their schedule and circumstances in order to accommodate the transaction

with the Government. Now, the citizen and the assistance they require are the focus of the process. The service is more important than the bureaucracy.

For Governments and agencies, the benefit comes in the form of improved business processes, the way and the speed with which business is conducted. By collecting the data electronically, agencies benefit by reducing the processing time for transactions. This allows agencies to share data more easily, and speeds transactions conducted between and within agencies.

Examples of successful adoption of the tenets of E-Government to deliver services to the citizen and make the government more effective include the *National Science Foundation* (NSF) and the *Office of Personnel Management*. NSF's FastLane system is used by more than 200,000 scientists, educators, technology experts and administrators to conduct business over the Internet. OPM manages five Presidential E-Government initiatives including USAJOBS, which receives on average 200,000 visits per day by Federal employment job seekers who can create resumes using the tools available on-line. Federal employees have taken more than 160,000 courses through the Gov Online Learning Center (GoLearn.gov), while E-Payroll is consolidating agencies payroll services into four service providers

Government agencies have traditionally considered themselves as separate businesses with each serving its own mission. Citizens, however, may not draw distinctions between different agencies and agency missions; they simply want access to information in a timely fashion. Through the PMA, the Presidential E-Government initiatives and the efforts to provide a Federal Enterprise Architecture (FEA), Government is managing itself as one business with many subsidiaries. Through multi-agency E-Government initiatives such as Regulations.gov and Grants.gov, multiple agencies work together to provide service to the citizen from a single location.

Regulations.gov makes it easier for citizens and businesses to easily find, review, and submit comments on proposed rules in the Federal Register that may affect them.

Grants.gov makes it easier for grant seekers to find and apply for more than \$350 billion in Federal grant opportunities across more than 900 programs in 26 agencies. Equally important, grant-seekers won't have to visit each federal agency's website every day to find or apply for grant opportunities.

Chapter 9, Table 9-2, Status of the Presidential E-Government Initiatives, included on the CD-ROM, provides an update for each project.

MODERNIZATION BLUEPRINTS

Over the past three years, as a result of the implementation of this Administration's Electronic Government initiative, dramatic changes have begun to occur in the way the Government uses information technology to provide services to citizens. Federal agencies are rapidly developing and implementing sophisticated IT management policies and practices for their Capital Planning and Investment Control, professional project management practices and processes, and comprehensive security management practices

Computers and related IT equipment and services are a means to an end, not an end in and of themselves. They are a tool to do a job and must support the business of the agency in order to be effective. IT, properly managed and focused, can help deliver government services and results to the public faster, cheaper, and with better quality than current methods. To gain the maximum benefit from IT systems, Agencies must understand how technology fits into and can support their missions.

The FEA and the companion efforts of the agencies' Enterprise Architectures together provide the "blueprint" for completing analysis in the areas of common business practices, opportunities for consolidation, and acceleration of service delivery. OMB, in collaboration with the Federal CIO Council, is developing the Government-wide FEA to provide a common view across the Government of the work agencies do and the technology used to deliver services. The FEA creates the blueprint to identify where agencies share common functions and consequently can use shared technology

solutions. With these efforts, the Government is completing the design of a common, shared information technology support structure within and across agencies.

Historically, data communications, databases, office automation and security have been planned and deployed to support individual agencies, or even individual organizations and applications within an agency. This process has led not only to duplication but also to difficulty in operating effectively across lines of business. To address these deficiencies, the Administration asked agencies to plan for the integration of their common infrastructure and office automation environments. Included in these plans were strategies to move towards an integrated support environment while using the Government blueprint. The final result of these plans, migration strategies and support systems will be a comprehensive Government-wide view of the technologies being used to support the implementation of agency and cross-agency systems.

To support the implementation of the agencies' modernization efforts, the Administration initiated programs like SmartBUY. This initiative leverages the immense buying power of the Federal Government in order to achieve the maximum cost savings, most favorable terms and conditions, and the best quality commercial brand-name software while continuing to motivate vendors to do business with the Government.

Sharing Technology across Agencies Will Drive Results.—While the effort to integrate and consolidate IT environments within an agency can provide substantial

cost savings and performance improvement, the real potential benefit comes from the integration of agency processes and systems and the extension and integration of those environments across agencies. Based on the initial implementation of the FEA in the 2004 budget, six common areas where the work activities of diverse agencies were similar or nearly identical in providing services to citizens were identified. These strong similarities in activities present excellent opportunities for sharing resources and gaining efficiencies. The results of on-going analysis will provide the opportunity for breakthrough improvements in service performance for citizens.

For example, the Health and Case Management functions have become the subject of Government-wide collaboration initiatives. The Department of Health and Human Services has taken the lead in a broad cross-agency effort to develop a complete architecture for the Health function, which is expected to yield a number of major cross-agency initiatives. The Department of Justice has taken a leading role in developing a broader cross-agency approach to Case Management that will enable agencies to implement common business practices and technology solutions to this widely used process.

Initiatives such as these will result in “best practice” solutions that span across agencies, and across all levels of government to bring significant benefits to citizens, businesses, and government entities.

Other areas of commonality that have already been identified for similar initiatives include Financial Management, Human Resources Management, and Grants. These common functional areas will be targeted by cross-agency teams for integration and consolidation. These efforts are expected to yield new common practices and technology initiatives to save money, improve efficiency and provide for significant improvements in service delivery beginning in 2005.

Moving Forward.—In 2005 and beyond, the Government will continue identifying additional areas where the work of agencies is similar enough to believe that a shared approach to the use of information technology will yield major benefits. This effort will pave the way for major breakthroughs in the pace at which agencies can adapt to changing mission needs and deliver the results citizens are demanding.

The Federal Government has made significant progress in implementing E-Government to better serve the citizen, but much remains to be done. Through the PMA, the Clinger-Cohen Act, the E-Government Act, and budget guidance, the Federal Government has the tools necessary to make it easier for citizens and businesses to interact with their Government. Through sound management practices, responsible investment, improved security and privacy, and innovative approaches to meeting the needs of the taxpayer, agencies can accomplish this important goal.