



## Testimony

Before the Subcommittee on Technology,  
Information Policy, Intergovernmental Relations  
and the Census, Committee on Government  
Reform, House of Representatives

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# ELECTRONIC GOVERNMENT

## Progress and Challenges in Implementing the Office of Personnel Management's Initiatives

Statement of Linda D. Koontz  
Director, Information Management Issues





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## Progress and Challenges in Implementing the Office of Personnel Management's Initiatives

Highlights of [GAO-03-1169T](#), a testimony before the Subcommittee on Technology, Information Policy, Intergovernmental Relations and the Census, Committee on Government Reform, House of Representatives

### Why GAO Did This Study

Electronic government (e-government) refers to the use of information technology (IT), including Web-based Internet applications, to enhance access to and delivery of government information and services, as well as to improve the internal efficiency and effectiveness of the federal government. The Office of Personnel Management (OPM) is managing five e-government initiatives whose goal is to transform the way OPM oversees the government's human capital functions. These 5 initiatives are among 25 identified by the Office of Management and Budget (OMB) as foremost in the drive toward e-government transformation. The 25 initiatives have ambitious goals, including eliminating redundant, nonintegrated business operations and systems and improving service to citizens by an order of magnitude. Achieving these results, according to OMB, could produce billions of dollars in savings from improved operational efficiency.

In today's testimony, among other things, GAO identifies the challenges facing OPM as it moves forward in implementing the five human capital initiatives.

[www.gao.gov/cgi-bin/getrpt?GAO-03-1169T](http://www.gao.gov/cgi-bin/getrpt?GAO-03-1169T).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Linda Koontz at (202) 512-6240 or [koontzl@gao.gov](mailto:koontzl@gao.gov).

### What GAO Found

OPM's five e-government initiatives (summarized in the table) are an ambitious attempt to transform the way human capital functions and services are carried out in the federal government. OPM faces several challenges that, if not fully met, could prevent it from meeting its objectives and realizing projected improvements and dollar savings.

For instance, in order to meet a perceived need for quick results, alterations have been made to the acquisition plans for several of the 25 OMB-sponsored e-government initiatives, including OPM's Recruitment One-Stop initiative. In OPM's recent decision to continue with its awarded contract for Recruitment One-Stop, despite a successful bid protest by Symplicity Corporation, agency officials perceived the need for quick results to be one factor outweighing the importance of issues raised by GAO concerning the conduct of the procurement. However, by taking this course, OPM risks alienating potential supporters of its initiative.

Further, managing the migration from agency-specific systems to consolidated systems will be a challenge, because agencies may be required to take positive action to shut down existing systems and invest in additional or updated technology to use the new, consolidated systems resulting from OPM's five initiatives. Consequently, it will be crucial for OPM to implement effective change management and communication policies. In addition, technical integration across agencies to support consolidation, including the development of standards, is a formidable task.

Finally, OPM also faces a significant challenge in realistically estimating the cost savings to be derived from these initiatives. In many cases, estimates of cost savings are only loosely based on measures that are difficult to quantify, such as the average cost of performing a certain function across the government. To be truly effective in meeting its goals, OPM needs to establish complete, meaningful, and quantitative measures of cost savings.

#### Overview of OPM's Five E-Government Initiatives

Initiative	Purpose
Recruitment One-Stop	Provide a one-stop Web site for federal job seekers through a single application point that provides a range of information and tools, including vacancy information, application submission, status tracking, and other tools.
e-Clearance	Improve the efficiency and speed by which federal government clearances are granted to maximize the efficiency of collecting data, scheduling cases, locating existing investigations and clearances, and retrieving archived records.
Enterprise Human Resources Integration	Provide a data repository of standardized core human resource data to replace the paper Official Personnel File, with an Official Electronic Record, enabling the electronic exchange of information between agencies during an employee's government career.
e-Training	Support development of the federal workforce through simplified, one-stop access to high-quality Internet-based training products and services.
e-Payroll	Improve federal payroll operations by consolidating 22 existing federal payroll system providers; simplifying and standardizing policies and procedures; and better integrating federal payroll, human resources, and finance functions.

Source: GAO analysis of OPM and OMB documents.

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Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to participate in the Subcommittee's hearing on the progress of, and challenges to, implementing the electronic government (e-government) initiatives that are being led by the Office of Personnel Management (OPM). Generally speaking, e-government refers to the use of information technology (IT), including Web-based Internet applications, to enhance the access to and delivery of government information and service to citizens, business partners, and employees, and to improve the internal efficiency and effectiveness of the federal government. A variety of actions have been taken in recent years to enhance the government's ability to realize the potential of e-government, culminating in the enactment of the E-Government Act of 2002,<sup>1</sup> which includes provisions to promote the use of the Internet to provide government services electronically, strengthen agency information security, and manage the federal government's growing IT human capital needs.

The President has embraced e-government as one of five priorities in his management agenda for making the federal government more focused on citizens and results. Under the leadership of the Office of Management and Budget (OMB), a set of high-profile initiatives was identified to lead the drive toward e-government transformation. These initiatives—now numbering 25<sup>2</sup>—have ambitious goals, including eliminating redundant, nonintegrated business operations and systems and improving service to citizens by an order of magnitude. Achieving these results, according to OMB, could produce billions of dollars in savings from improved operational efficiency. However, to realize such savings, it will be critically important that these initiatives are well managed as the government undertakes the challenging task of turning good ideas into real-world results.

OPM, the President's agent and advisor for human capital matters, is charged with overseeing the management of the federal government's most important asset—its people. OPM is in the process of transformation—from less of a rulemaker, enforcer, and independent agent to more of a consultant, toolmaker, and strategic partner in leading and supporting executive agencies' human capital

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<sup>1</sup> P. L. No. 107-347.

<sup>2</sup> Twenty-three initiatives were originally selected in September 2001. A 24th, e-Payroll, was then added by the President's Management Council. In 2002, a decision was made to separate the e-Clearance project from the Integrated Human Resources initiative, resulting in the current count of 25 projects.

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management systems. As part of that transformation, OPM has taken on the role of managing partner for 5 of the 25 OMB-sponsored e-government initiatives. As requested, in my remarks today, I will provide an overview of OPM's initiatives and identify the challenges facing OPM as it moves forward in implementing these initiatives. I have also included an attachment that lists other pertinent GAO publications on e-government issues.<sup>3</sup>

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## Background

Expansion of e-government was one of five top priorities in the President's fiscal year 2002 management agenda for improving government performance.<sup>4</sup> To support that priority, a task force, led by OMB, was established in 2001 and charged with identifying electronic government projects that could deliver significant productivity and performance gains across government. The task force analyzed the federal bureaucracy and identified areas of significant overlap and redundancy in how federal agencies provided services to the public. The task force found that multiple agencies were conducting redundant operations within 30 major functions and business lines in the executive branch. To address these redundancies, the task force evaluated potential projects, focusing on collaborative opportunities to integrate IT operations and simplify processes within lines of business across agencies and around citizen needs. As a result of this assessment, the task force identified a set of high-profile e-government initiatives for accelerated near-term implementation. These are now the 25 OMB-sponsored initiatives.<sup>5</sup>

The President's management agenda outlined the following results expected as a result of e-government:

- provide high-quality customer services regardless of whether the citizen contacts the agency by phone, in person, or on the Web;
- reduce the expense and difficulty of doing business with the government;

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<sup>3</sup> These publications can be obtained through GAO's World Wide Web page at [www.gao.gov](http://www.gao.gov).

<sup>4</sup> Office of Management and Budget, *The President's Management Agenda, Fiscal Year 2002* (Washington, D.C.).

<sup>5</sup> For more on OMB's selection process, see U.S. General Accounting Office, *Electronic Government: Selection and Implementation of the Office of Management and Budget's 24 Initiatives*, [GAO-03-229](#) (Washington, D.C.: Nov. 22, 2002).

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- cut government operating costs;
  - provide citizens with readier access to government services;
  - increase access for persons with disabilities to agency Web sites and e-government applications; and
  - make government more transparent and accountable.

OMB also established a portfolio management structure to help oversee and guide the initiatives and facilitate a collaborative working environment for each of them. This structure includes five portfolios: “government to citizen,” “government to business,” “government to government,” “internal efficiency and effectiveness,” and “cross-cutting.” Each of the 25 initiatives is assigned to one of these portfolios, according to the type of results the initiative is intended to provide. Further, for each initiative, OMB designated a specific agency to be the initiative’s “managing partner,” responsible for leading the initiative, and assigned other federal agencies as “partners” in carrying out the initiative. OPM was designated the managing partner for five initiatives—Recruitment One-Stop, which is to provide a consolidated Web site for federal job applicants; e-Clearance, which seeks to improve the process of granting security clearances; Enterprise Human Resources Integration, which is to replace paper personnel files with electronic records; e-Training, which is to provide Internet-based training for federal employees; and e-Payroll, which seeks to consolidate federal payroll systems. The five initiatives are all part of the internal efficiency and effectiveness portfolio.

In developing this testimony, our objectives were to describe the progress of the five e-government initiatives being managed by OPM and identify key challenges associated with implementing them successfully. To address these objectives, we analyzed relevant documentation from OPM and interviewed project officials from each of the initiatives. To assess progress to date and identify major challenges to implementing the initiatives, we analyzed the reported accomplishments and planned activities of the projects and compared them with information provided in the initiatives’ original business cases. We also held discussions with agency officials to obtain additional information. We performed our work in September 2003 in accordance with generally accepted government auditing standards.

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## OPM's e-Government Initiatives Are Designed to Support a Range of Human Capital Functions

OPM's e-government initiatives are intended to serve as a complete set of electronic support tools for the federal government's human capital functions, including recruitment, security clearances, personnel records, training, and payroll. OPM's retirement systems modernization project—not an OMB-sponsored initiative—rounds out this set of tools. OPM's vision is for these initiatives to streamline and improve the process for moving employees through the entire life cycle of their employment with the federal government and to do so consistently with the evolving Federal Enterprise Architecture<sup>6</sup> as well as with security and privacy standards. According to the agency, the success of the initiatives will depend on leveraging of existing IT coupled with standardization and consolidation practices that are beneficial to end users.

If successful, these initiatives are likely to accrue savings to the federal government by reducing redundancy among agency systems and streamlining the various processes involved in tracking and managing federal employment. Although we have not evaluated its claim, OPM asserts that its e-government projects will save approximately \$2.6 billion over the life of the initiatives. These savings are expected to derive not only from eliminating duplicative personnel systems, such as payroll systems, but also from such process improvements as reducing the amount of time it takes to obtain a security clearance and streamlining the way in which training is administered. Table 1 provides an overview of OPM's e-government projects and key milestones, and table 2 provides a summary of changes in cost estimates for the initiatives.

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<sup>6</sup> Enterprise architectures are blueprints for transforming how a given entity operates, whether it be a federal agency or a federal function that cuts across agencies. The Federal Enterprise Architecture is intended to facilitate governmentwide improvements through cross-agency analysis and the identification of duplicative investments, gaps, and opportunities for collaboration, interoperability, and integration within and across government agencies. For more information, see U.S. General Accounting Office, *Information Technology: Enterprise Architecture Use across the Federal Government Can Be Improved*, GAO-02-6 (Washington, D.C.: Feb. 19, 2002).

**Table 1: Overview of OPM's Five e-Government Initiatives**

Initiative	Purpose	Key Milestones
Recruitment One-Stop	Provide a one-stop Web site for federal job seekers by implementing a single application point that includes vacancy information; job application submission; application status tracking; employment eligibility screening; and applicant database mining.	<ul style="list-style-type: none"> <li>• June 2002—implemented an updated Web site at <a href="http://www.usajobs.opm.gov">www.usajobs.opm.gov</a>.</li> <li>• August 2003—implemented database mining tools, integrated assessment tools, and status tracking.</li> <li>• December 2003—begin shutdown of job search engines and resume builders at other federal agencies.</li> </ul>
e-Clearance	Improve the efficiency and speed of granting federal government security clearances by maximizing the efficiency of data collection and case scheduling, simplifying the location of existing investigations and clearances, and making the retrieval of archived records a near real-time event.	<ul style="list-style-type: none"> <li>• May 2002—began consolidating clearance investigation results to a DOD/civilian database.</li> <li>• November 2002—deployed a new clearance certification form that allows individuals to indicate changes, if any, to their clearance status.</li> <li>• June 2004—electronic retrieval and dissemination of investigation information available to authorized agency users.</li> </ul>
Enterprise Human Resources Integration (EHRI)	Provide a data repository of standardized core human resource data to replace the paper Official Personnel File with an Official Electronic Record, enabling the electronic exchange of information between agencies during an employee's government career.	<ul style="list-style-type: none"> <li>• July 2003—selected a systems integrator and began work.</li> <li>• September 2003—built and deployed a proof-of-concept system for a consolidated EHRI data repository.</li> <li>• Second quarter 2004—develop and deploy interfaces with agencies to exchange data on a biweekly basis.</li> </ul>
e-Training	Support development of the federal workforce through simplified and one-stop access to high-quality Internet-based training products and services to unify training services across the federal government.	<ul style="list-style-type: none"> <li>• July 2002—launched <a href="http://www.golearn.gov">www.golearn.gov</a> with 37 training courses and over 100 books and professional journals.</li> <li>• January 2003—enhanced the Web site with additional courses and tools.</li> <li>• September 2004—interface to or shut down existing federal on-line training systems.</li> </ul>
e-Payroll	Improve federal payroll operations by consolidating the operations of 22 existing federal payroll system providers; simplifying and standardizing federal payroll policies and procedures; and better integrating payroll, human resources, and finance functions across federal agencies.	<ul style="list-style-type: none"> <li>• January 2003—chose four agencies to be payroll providers for all executive branch agencies.</li> <li>• January 2003—began agency payroll services consolidation.</li> <li>• September 2004—complete migration of the existing payroll providers to one of the two payroll partnerships.</li> </ul>

Source: GAO analysis of OPM and OMB documents.

**Table 2: Changes in Cost Estimates for OPM's Five e-Government Initiatives**

Initiative	Cost (dollars in millions)						
	FY 2002			FY 2003 estimated			FY 2004 estimated
	Original estimate	Actual	Net change	Original	Current	Net change	
Recruitment One-Stop	1.2	1.2	0	1.2	9.2	8.0	6.7
e-Clearance	2.2	5.4	3.2	2.9	9.5	6.6	8.7
Enterprise Human Resources Integration	3.2	2.8	-0.40	20.3	7.5	-12.8	18.9

**Cost (dollars in millions)**

Initiative	FY 2002			FY 2003 estimated			FY 2004 estimated
	Original estimate	Actual	Net change	Original	Current	Net change	
e-Training	2.1	2.1	0	2.7	2.5	-0.2	2.5
e-Payroll	2.2	1.3	-0.9	50.8	2.5	-48.3	2.5

Source: OPM.

## Recruitment One-Stop

Recruitment One-Stop is a collaborative effort between OPM and its federal agency partners to develop a comprehensive Web site ([www.usajobs.opm.gov](http://www.usajobs.opm.gov)) to assist applicants in finding employment with the federal government. Full implementation of Recruitment One-Stop is expected to benefit citizens by providing a more efficient process for locating and applying for federal jobs, and to assist federal agencies in hiring top talent in a competitive marketplace. As we have previously reported, automation has the potential to provide a variety of benefits in streamlining the hiring of new employees.<sup>7</sup> The specific objectives of Recruitment One-Stop that will benefit federal job applicants include

- a single portal advertising federal job opportunities that supports searching for jobs by type, location, salary, or level of experience; a standard method for applying for federal positions that provides immediate feedback on basic eligibility; and basic eligibility screening that addresses issues such as citizenship, age, and special occupational requirements, such as the need to carry firearms;
- standardized vacancy announcements with additional detailed information available via electronic “hyperlinks”;
- tools to build and store an on-line resume, including a resume template covering all information normally needed to make basic qualifications and eligibility determinations; and
- the ability to check on the status of federal job applications by accessing basic information such as closing and/or cancellation dates, dates of candidate referral, and points of selection.

In addition, agencies are expected to be able to search and review the resumes of consenting applicants in the USAJOBS database, a

<sup>7</sup> U.S. General Accounting Office, *Human Capital: Opportunities to Improve Executive Agencies' Hiring Processes*, GAO-03-450 (Washington, D.C.: May 30, 2003), p. 22.

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process called applicant database mining. This feature will assist agencies in locating candidates for hard-to-fill positions by capturing “passive” job seekers who have resumes on file, but who may not have thought of looking for opportunities within a particular agency, job field, or location.

To date, the Recruitment One-Stop initiative has met several planned milestones, including implementing enhancements to the previously existing [www.usajobs.opm.gov](http://www.usajobs.opm.gov) Web site in August 2003, such as a resume builder to assist job applicants in developing up to five versions of their resume with which to apply for federal jobs, and a basic application status tracking tool to assist applicants in finding the status of their federal applications. By the end of this month, OPM plans to have all executive branch agencies using the Web site to advertise their jobs. By December 2003, it intends to begin working with agencies to shut down agency-unique job search engines and resume builders.

OPM has continued development of the enhanced USAJOBS Web site despite a successful bid protest against its contract award for implementing the enhancements. On January 16, 2003, OPM awarded a contract to TMP Worldwide, Inc., to support enhancements to the Web site. However, on January 24, 2003, a competing vendor, Symplicity Corporation, protested the award. We sustained Symplicity’s protest on April 29, 2003, based on a determination that OPM did not exercise certain necessary evaluative controls in its review of the bids before awarding the contract, resulting in errors in the bidding process that created an unfair competitive environment. For example, we found that OPM did not perform an analysis of whether the quoted services, labor categories, and other direct costs included in TMP’s quotation were within the scope of TMP’s approved GSA contract schedule. Based on this finding, we recommended that OPM reopen discussions with all vendors whose quotations were competitive and request and reevaluate revised quotations. However, on July 21, 2003, OPM informed us that it would not reopen discussions with vendors, citing as one of its reasons the need to complete the system “within the government’s required time frame.” On August 5, 2003, we submitted a report to Congress summarizing the protest decisions and the circumstances of the failure of OPM to implement our recommendation.

OPM is planning to measure the performance of the enhanced Web site and features with metrics such as cost per hire, time to fill vacancies, and the percentage of federal job applicants using

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Recruitment One-Stop. OPM expects that once Recruitment One-Stop is fully implemented, it will generate a total of \$365 million in savings through fiscal year 2012. According to project officials, the expected cost savings were extrapolated from projected average annual decreases in the cost of hiring each new federal employee. By fiscal year 2005, OPM's goal is to reduce the cost per hire from \$2,790 to \$2,678, reduce the time to fill job vacancies from 102 days to 97, and increase the percentage of job applicants using Recruitment One-Stop from 80 to 84 percent.

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## e-Clearance

The e-Clearance project is designed to improve processing of security clearances for federal employees. It focuses on consolidating and increasing access to information to improve the efficiency of granting or locating previous clearances or investigations. OPM intends the e-Clearance project to help streamline data collection and case scheduling by making it easier to locate existing investigations and clearances, providing for almost immediate retrieval of archived records as they are needed. The expected benefits include quicker granting of clearances, elimination of redundant investigations, and financial savings from a reduction in the overall costs of clearances. The initiative consists of three modules:

- *Electronic Questionnaires for Investigations Processing* involves the automation of the Questionnaire for National Security Positions (Standard Form 86). This paper-based form requires at least 2 hours to complete, and some federal employees are required to fill it out as often as every few months to maintain their security clearances. Since the current form is processed manually, it must be completed each time from scratch. In contrast, the electronic version of the form will be populated with previously submitted data, thereby streamlining the application process. In addition, a new form has been deployed that allows federal employees to indicate that there have been no changes in the data provided on the most recently filed Standard Form 86, or, where there are changes, to provide only the newly changed information.
- *Clearance Verification System* consists of the development and implementation of a cross-agency system to enable a single search to locate investigative and clearance information from any agency. This module requires civilian agencies to load their existing clearance information into OPM's Security/Suitability Investigations

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Index so that new clearance applications can be checked against existing information. The module also includes developing a link to the Department of Defense's Joint Personnel Adjudication System to access comparable DOD information.

- *Imaging* includes the creation, storage, and retrieval of digital images of investigative reports and other documents. Often, the longest delay in an investigation can be the retrieval, copying, and mailing of previous reports. The use of imaging is intended to ease retrieval and dissemination of investigative information for authorized users.

Currently, OPM states that all major milestones for this initiative have been met, including

- activating Electronic Questionnaires for Investigations Processing in June 2003;
- completing the Clearance Verification System connection between OPM and DOD at the end of 2002, and having 80 percent of agencies load their existing clearance information into the Clearance Verification System at the end of January 2003; and
- beginning the process of creating digital images of existing investigative records by May 2003.

The requirements for Imaging were developed between the fall of 2002 and the summer of 2003, and some agencies have begun imaging while others will phase in this capability. Additionally, OPM plans to implement a secure network for exchanging imaged files by early 2004.

OPM plans several performance improvements for fiscal year 2005, including reducing the average time to process clearance forms electronically from 28 to 21 days, adding three additional forms to the one now available in the Electronic Questionnaires for Investigations Processing application, keeping unscheduled application downtime at no more than 2 percent, and providing training to all e-Clearance staff.

OPM estimates that e-Clearance will realize savings of \$258 million through fiscal year 2012. These savings are to be realized through avoiding agency-unique systems procurements and through a \$50 reduction in the average cost of each clearance investigation.

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## Enterprise Human Resources Integration

The purpose of the Enterprise Human Resources Integration (EHRI) initiative is to facilitate human capital management activities by providing storage, access, and exchange of standard electronic information, through development of a data repository of standardized core human capital data for all 1.8 million executive branch employees. These data will be in the form of an Official Electronic Record, which is intended to replace the current paper-based Official Personnel File. An Official Electronic Record for each employee is to be maintained through electronic exchange of information among agencies throughout an employee's government career. Because all EHRI information exchanges will be electronic, OPM expects to reduce process cycle times, and improve the accuracy of transactions.

The three primary goals of EHRI are to

- provide for comprehensive knowledge management and workforce analysis, forecasting, and reporting to further strategic management of human capital across the executive branch;
- enable expanded electronic exchange of standardized human resources data within and across agencies and systems and the attainment of associated benefits and cost savings; and
- provide unification and consistency in human capital data across the executive branch.

OPM plans to implement EHRI in three releases. Release 1 will be a prototype of the data repository system and is scheduled to be ready by September 30, 2003. Release 2, scheduled for the second quarter of fiscal year 2004, is intended to allow biweekly employee data to be provided electronically. Release 3 is planned to incorporate interfaces between OPM's Retirement System Modernization system and e-Training and to allow two-way electronic transfer of personnel data between agencies. The system functionality is to be incrementally available between March and September 2004.

OPM plans to improve performance for fiscal year 2004 in areas such as personnel management, savings and cost avoidance, and data reliability and quality. For example, it intends to alter regulations, executive orders, and laws to enable the conversion of records to an electronic format. Another planned measure involves eliminating the need for agencies to develop new human capital

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management capabilities. Other measures include a reduction in the baseline data error rate and participation by 9 of the 18 partner agencies in electronic workforce forecasting. OPM reported that EHRI would save taxpayers around \$235 million through fiscal year 2012.

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## e-Training

The purpose of the e-Training initiative is to create a government-wide e-Training environment—the Gov On-line Learning Center ([www.golearn.gov](http://www.golearn.gov))—which is to support the development of the federal workforce and provide a single source for on-line training and strategic human capital development for all federal employees. The Gov On-line Learning Center is designed to provide users access to a broad range of products and services, including mandatory government-wide training on topics such as computer security, ethics, and preventing sexual harassment, as well as agency-specific training and high-interest topics, such as homeland security. Some of the courses are to be free, while others are to be available on a fee-for-service basis.

OPM also plans for the GoLearn Web site to provide tools that will allow human capital specialists and employees to match an employee's professional and individual development to available courses and services. OPM expects that its initiative will allow agencies to focus their own training efforts on unique needs, thus maximizing the effectiveness of their expenditures on workforce performance. Providing agencies with on-demand e-learning services is expected to enable the government to better attract, retain, manage, and continuously educate the highly skilled professionals needed for a flexible and high-performing government workforce.

The e-Training initiative is intended to benefit the government and federal workforce by

- encouraging e-training investments as part of a systematic and continuous development of federal government human capital;
- reducing redundancies in the development and purchase of e-training content;
- achieving economies of scale through consolidated purchasing;

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- offering easy, one-stop access to a robust, high quality e-training environment; and
  - leveraging components of existing e-training systems.

The e-Training Initiative is composed of three developmental modules. Module 1, launched in July 2002, included 37 free commercial off-the-shelf training courses (on topics such as project management, prevention of sexual harassment, using Microsoft Excel spreadsheet software, and change management); “Search and Select,” a set of quick 5 to 7 minute learning segments; and “E-Books,” a collection of over 100 professional journals and books. Module 2, launched in January 2003, added access to additional free commercial and government courses, fee-for-service options for e-training products and services, enhanced registration and reporting, and blended learning options for law enforcement training and executive and management training. Finally, Module 3, originally scheduled for June 2003, recently became operational. OPM states that this module will include a Merit Systems Principles e-course, as well as competency-based workforce development roadmaps specifically for IT workforce occupations. According to OPM, future releases of the Gov Online Learning Center will move from providing content to facilitation of learning. The agency also plans to introduce knowledge domains, user communities of practice, and virtual collaboration tools.

OPM estimated that e-Training would save taxpayers about \$784 million through 2012. These savings are expected from the lower cost associated with providing on-line training, such as savings resulting from less travel. OPM expects to have 30 customized Web sites in operation for fiscal year 2004. Its goal is to have 77,000 courses completed and 48 sites developed. It is planning to measure performance of the e-Training initiative through indicators such as the number of eligible GoLearn users, the number of participating entities, the number of GoLearn courses completed and the number of custom sites. For example, OPM plans to increase the number of individuals registered on the GoLearn site from 142,000 to 193,000.

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## e-Payroll

The goal of the e-Payroll initiative is to substantially improve federal payroll operations by standardizing them across all agencies, integrating them with other human resource functions, and making them easy to use and cost-effective. To achieve this goal, plans are

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to consolidate the operations of 22 existing federal payroll system providers, simplify and standardize federal payroll policies and procedures, and better integrate payroll with other human capital and finance functions across federal agencies.

Major objectives of the initiative include (1) defining governance for the initiative, (2) standardizing payroll policies, (3) establishing an e-Payroll enterprise architecture, and (4) overseeing consolidation of agency payroll operations. The first major project deliverable—establishing governance—was completed in April 2002 as scheduled. OPM chose four agencies to be providers of payroll services to all 116 executive branch agencies. The four selected providers are the General Services Administration (GSA) and the Departments of Defense, Interior, and Agriculture. The initiative is divided into two major phases:

- migrating each of the 18 nonselected payroll system providers to one of the four selected providers by September 2004, and
- merging the functions of the four selected payroll providers into just two, while working to develop a single, integrated payroll system for all executive branch agencies.

Although providers have been selected and a migration schedule established for nonselected agencies, other actions have been delayed. Standardization of policies, originally scheduled for completion in July 2002, is currently ongoing. The enterprise architecture planning task and the initial phase of agency consolidations were both scheduled to begin in October 2002 but were not initiated until January 2003. According to the project manager, these schedule deviations have not led to a significant delay in the overall progress of the initiative toward the original goal of consolidating the 22 payroll providers to 4 by September 2004.

OPM reported that e-Payroll should save \$1.1 billion through fiscal year 2012. These savings would result from reducing operating costs, eliminating duplicative systems investments, and simplifying payroll processing. OPM plans to use several indicators to measure performance and improvements regarding e-Payroll for fiscal year 2005, including reductions in payroll costs per W-2 per employee, improvements in the accuracy of Treasury disbursements, and reductions in response time. Currently, the cost of payroll services per W-2 per employee can vary from \$125 to \$225. OPM's plan is to lower these costs to \$97. Other planned improvements include increasing the accuracy of Treasury's disbursements from 98

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percent to 100 percent and reducing the cycle time involved in delivering payroll services.

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## OPM Faces Significant Challenges in Implementing Its e-Government Initiatives

OPM's portfolio of e-gov initiatives represents an ambitious attempt to transform the way human capital functions and services are carried out in the federal government. In implementing the initiatives, OPM faces a number of challenges that, if not fully met, could erode support for the initiatives or prevent OPM from meeting its objectives and realizing the improvements and dollar savings that the agency has projected. We have commented in the past on the many challenges facing e-government projects in general.<sup>8</sup> Today, I'd like to concentrate on three challenges that are especially pressing for OPM's efforts. These include (1) managing accelerated acquisitions, (2) achieving governmentwide consolidation of common electronic functions, and (3) estimating and measuring cost savings.

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### Managing Accelerated Acquisitions

Program managers for many of the 25 OMB-sponsored e-government initiatives have been under pressure, both from OMB and within managing partner agencies, to achieve results quickly. One of the criteria for OMB's selection of its e-government initiatives was the potential for the project to be completed "within 18–24 months." In order to meet the demand for quick results, significant alterations have been made to the acquisition plans for several initiatives.

For example, in the case of the e-Authentication initiative, which is focused on developing a centralized gateway for electronic authentication in support of the other OMB-sponsored initiatives, a decision was made to compress to approximately 3 months the competitive contracting process, which had originally been planned to take place over a full year. The major factor in this decision was the perceived need to make the planned gateway fully operational as soon as possible. However, this accelerated schedule may be difficult to achieve because it is based on an extremely short time

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<sup>8</sup> U.S. General Accounting Office, *Electronic Government: Challenges Must Be Addressed With Effective Leadership and Management*, GAO-01-959T (Washington, D.C.: July 11, 2001).

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frame, in which the selected contractor must develop, test, and deploy a fully operational gateway.

In the case of the Geospatial One-Stop initiative, which aims to establish a Web portal for locating and disseminating geospatial information, the initiative's board of directors decided in early 2003 to make an award based on an unsolicited proposal rather than continue a competitive procurement, largely because of a perceived need to implement the Web portal as quickly as possible. The change in acquisition plans has caused concern among many in the geospatial information systems community that the contractor's proprietary approach to developing the Web portal could make it difficult for many potential contributors to share data with the portal—which would prevent the initiative from meeting its goal of providing one-stop access to geospatial data.

OPM has likewise taken a controversial step with its recent Recruitment One-Stop acquisition. In its decision to continue with its awarded contract for Recruitment One-Stop, despite a successful bid protest by Symplicity Corporation, OPM officials perceived the need to implement an e-government initiative as quickly as possible to be one factor outweighing the importance of issues that we raised concerning the conduct of the procurement. In its letter to us explaining why it intended to proceed without implementing our recommendation, OPM made clear that it was concerned about implementing Recruitment One-Stop quickly: "The [Recruitment One Stop] program is ready to become operational. National security demands and critical domestic needs underlie the Government's vital need for efficient recruitment and hiring methods. No other contractor can complete the system within the Government's required timeframe." However, in our report to Congress, we noted that OPM did not provide any details to support this claim. While it is important to adhere to agreed-upon schedules and milestones, it is also important to follow established contracting procedures, which are intended to ensure fair competition. A rapidly chosen vendor may not represent the best value for the government's investment.

By leaving questions about the fairness of the Recruitment One-Stop competition unresolved, OPM risks alienating potential supporters of its e-government initiative. In order to ensure the ultimate success of its initiatives, it is important that OPM—as well as the other managing partners of OMB-sponsored initiatives—carefully weigh the risks and benefits of making significant changes to its

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planned acquisitions solely based on the need to produce results quickly.

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## Achieving Governmentwide Consolidation of Common Electronic Functions

Each of OPM's five initiatives aims to ultimately create a single system or Web-based service to support a specific human capital function across the federal government. In each case, agency-unique systems and processes must be either replaced or integrated into the planned single system. Clearly, one of OPM's biggest challenges is managing the process of migrating agency-unique systems into consolidated systems and services that are flexible enough to effectively support the needs of virtually all federal agencies.

Many current federal human capital systems are based on proprietary systems that were originally developed for the narrowly defined needs of a single agency or bureau. These systems were not designed to be interoperable<sup>9</sup> with external systems, and generally were not built to government standards (which have not yet been defined for many human capital functions). The development of systems based on narrowly defined needs, combined with traditional barriers to interorganizational cooperation, have led to the current environment of duplicative, inefficient, nonintegrated ("siloed") operations.

One way to encourage interagency cooperation on multiple systems migrations is to develop a concerted strategy for managing change and communicating effectively with all affected parties. In June 2002, OPM submitted to OMB its change management and communication plan, which specified steps that OPM planned to take in managing change and communications. In implementing its plan, OPM established change management councils and delivered presentations on its plans for specific initiatives, as well as for governmentwide integration of human capital functions, to a range of audiences, including high-level officials (such as the e-Government committee of the President's Management Council and the Chief Human Capital Officers Council) and line managers (such as human resource managers).

Effective change management and communication will be critical, as agencies may be required to take positive action to both to shut

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<sup>9</sup> Interoperability is the ability of two or more systems or components to exchange information and to use the information exchanged.

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down existing redundant systems and invest in new technology to connect with OPM's standardized systems. OPM is planning for agencies to shut down a number of agency-unique systems and applications. For example, the e-Payroll initiative is set to reduce federal payroll providers from the current 22 to just two partnerships of two providers each. Nonselected payroll providers will be required to shut down operations. Another example is the Recruitment One-Stop initiative, which envisions that agency on-line resume building and job search engine capabilities will be shut down in favor of OPM's centralized system. The e-Training initiative also plans for agencies to shut down their unique systems in favor of OPM's offering.

Consolidation may also mean that agencies must make new investments in order to connect with a new, integrated system. The e-Clearance initiative, for example, requires all agencies with archives of clearance investigations to make those materials available electronically, thus necessitating agency expenses for new imaging equipment. Likewise, EHRI will require agencies to make modifications to their systems allowing electronic personnel records to be transmitted to OPM's central repository. Getting cooperation from all affected agencies in making these investments will be challenging.

OMB's support is a critical factor in facilitating these consolidations. For several e-government initiatives, OMB has used its statutory authority under the Clinger-Cohen Act of 1996<sup>10</sup> to direct agencies to identify and halt funding of potentially redundant IT investments. For example, OMB issued on January 10, 2003, a letter to federal agencies directing them to halt spending on agency-specific payroll modernization efforts not associated with migrating to the e-Payroll initiative. A similar letter had been issued in April 2002 directing agencies to load their security clearance information into e-Clearance's Clearance Verification System.

Beyond issues of organizational cooperation, technical integration can also be very challenging. Developing a common set of standards that are agreed to and used by all project partners is a key factor for integrating disparate, noninteroperable systems and services. Ensuring that processes are in place by which partners can select and agree upon standards and that all partners are adopting them are key factors in successfully establishing standards. Finally, standardization within the framework of the emerging Federal

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<sup>10</sup> P.L. No. 104-106.

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Enterprise Architecture is key to promoting compliant development and implementation across the government. OPM officials said they plan to use the Federal Enterprise Architecture to document specific data requirements for the human capital functions supported by their e-government initiatives.

OPM has taken steps to involve its partners and other federal agencies in the process of identifying opportunities for standardization on the e-Payroll initiative. However, it still faces the challenging task of getting federal agencies to reach agreement on a single payroll standard that they all can use. As agencies migrate ultimately to this single standard, changes may need to be made either to provider payroll processes and standards—so that the various payroll mandates can be accommodated—or to the mandated requirements themselves, so that agencies can conform to the single-payroll standard. For example, the Department of Veterans Affairs’ Acting Deputy Assistant Secretary for Finance expressed concern that administering payroll systems under Title 38 of the United States Code<sup>11</sup>—the legislation that governs the agency’s payroll processes—was very complex, and that significant changes in payroll processing could be necessary as the agency migrates to its new payroll provider. According to an OPM study, in addition to Title 38, there are at least 13 other sets of legislated federal payroll provisions that will need to be reviewed and addressed before a single federal payroll system can be implemented.<sup>12</sup> Without agreement on standards, changes mandated by OPM may not fully address agencies’ individual payroll processing requirements, increasing the risk that agencies will not be able to migrate as planned to the chosen governmentwide standard.

OPM may face similar challenges in establishing standards for official electronic personnel records, as part of EHRI. OPM officials conducted an exercise to identify all the various types of data captured by federal personnel forms. OPM officials identified 89 major data categories, with over 500 data elements. OPM officials recognize the challenge they face in seeking agreement across federal agencies on standardizing these data elements, a process which is still in its early stages.

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<sup>11</sup> 38 U.S.C, Part V, Chapter 74—Veterans Health Administration—Personnel.

<sup>12</sup> Office of Personnel Management, *e-Payroll Initiative: Plan for Standardization of Federal Payroll Policy*, Revision 1 (Washington, D.C.: Jan. 13, 2003).

While it is relatively easy to develop and implement Web sites that facilitate exchange of information—as some of OPM’s initiatives do—the agency can expect greater challenges in getting cooperation across the government to consolidate functions by shutting down redundant systems, investing in new technologies, and committing to new governmentwide standards. For several of OPM’s initiatives—including e-Payroll and EHRI—much of this process still remains to be completed.

## Estimating and Measuring Cost Savings

One of the goals of OMB’s e-government strategy includes achieving cost savings as an outcome of implementing the 25 e-government initiatives. For example, in its 2002 strategy OMB estimated that these initiatives could generate several billion dollars in savings by reducing operating inefficiencies, redundant spending, and excessive paperwork, and it also estimated that the initiatives would make available over \$1 billion in savings from realigning redundant investments. In addition, OMB has stated that the initiatives were selected for inclusion in the e-government strategy because they provided the most value to citizens while generating cost savings or improving the effectiveness of the government.

OPM has estimated substantial cost savings that officials believe can be attributed to the e-government initiatives. Specifically, the agency estimates that the total savings expected from all five of its e-government initiatives will be more than \$2.6 billion through fiscal year 2012. Such savings would be realized through performance enhancements that could reduce expenses such as costs per application for security clearances, costs per transaction for payroll processing, and costs associated with hiring new federal employees. Table 3 provides an overview of the cost savings estimated by OPM for its initiatives.

**Table 3: Estimated Cost Savings from Performance Enhancements**

Initiative	Estimated savings	Projected return on investment	Planned fiscal year 2005 financial performance enhancements
Recruitment One-Stop	\$365 million	710 percent	Reduce cost per hire
e-Clearance	\$258 million	440 percent	Reduce cost per security clearance application

Initiative	Estimated savings	Projected return on investment	Planned fiscal year 2005 financial performance enhancements
Enterprise Human Resources Integration	\$235 million	51 percent	Reduce cost per transaction due to reduction in manual paper processing
e-Training	\$784 million	262 percent	Reduce tuition and travel-related costs for participating agencies
e-Payroll	\$1.1 billion	155 percent	Reduce cost per payroll transaction per employee

Source: GAO analysis of OPM documents.

OPM faces a significant challenge in realistically estimating the financial savings to be derived from its e-government initiatives. In many cases, estimated cost savings associated with process improvements are only loosely based on measures that are inherently abstract, such as the average cost of performing a certain function across the government. For example, e-Training project officials estimate that federal agencies can reduce training costs substantially by substituting electronic courses taken through e-Training—which cost approximately \$10 to \$15 per training instance—for traditional courses, which cost on average \$150 per training instance, including travel. However, it is unclear the extent to which this kind of substitution will actually take place, or how it could lead to savings of \$784 million through 2012, as forecast by OPM. The e-Training project manager told us that the estimate was based on cost avoidance for training tuition, travel, and economies of scale in acquiring training software licenses.

Similarly, for the Recruitment One-Stop initiative, project officials predict that implementation will lead to a reduction in the average cost of hiring a new federal employee of \$112 in fiscal year 2005—from \$2,790 to \$2,678, or about 4 percent. With about 150,000 new federal hires each year, the total savings through 2012 would amount to about \$168 million—significantly less than the total cost savings of \$365 million over that period that OPM estimates. According to OPM officials, the additional savings would be gained through other factors contributing to future efficiencies, although specific performance measures had not yet been established.

OPM’s method for projecting cost savings due to process improvements may overstate the savings that can be reasonably attributed to those improvements. Specifically, officials stated that for at least one initiative, Recruitment One-Stop, estimated savings included continuing annual efficiency gains due to such things as

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expected “policy improvements” that would not be a direct result of implementing the Recruitment One-Stop initiative.

Further, OPM has not developed mechanisms to track actual training expenditures at agencies to determine whether its estimated governmentwide savings are being realized. With estimated savings based on abstract, average governmentwide costs, it will likely be very difficult to develop methods for documenting the savings associated with process streamlining at each agency across the federal government. In another example, e-Payroll is planned to reduce the number of federal payroll service providers from 22 to 4, and then consolidate those 4 to 2. Clearly, cost savings can be found by reducing the number of payroll systems operated and maintained by the federal government and avoiding the costs of updating or modernizing those systems. However, OPM has not clearly identified all the factors that would contribute to such savings, or what measures will be used to measure them. Cost savings from eliminating redundant systems is also a factor—though a smaller one—in savings projected for Recruitment One-Stop and e-Training.

Effectively measuring e-government cost savings is a challenge for all agencies engaged in efforts to streamline or transform government processes through e-government. To be truly effective in meeting the goals set out in OMB’s e-government strategy, agencies need to establish complete, meaningful, and quantitative measures of cost savings. Until such measures can be implemented, predicted cost savings will be difficult to confirm.

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In summary, OPM has made progress in moving forward with its five e-government initiatives, which, if fully implemented, could have significant benefits by providing more streamlined and seamless federal personnel processes, and by saving the taxpayers millions through eliminating redundant payroll and other systems. However, OPM continues to face several challenges in implementing and carrying out its e-government initiatives, including managing acquisitions while working to meet accelerated e-government project schedules; consolidating common, governmentwide human resource-related functions; and realistically estimating and measuring the cost savings that can be expected from these initiatives.

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Mr. Chairman, this concludes my statement. I would be pleased to answer any questions that you or other members of the subcommittee may have at this time.

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## Contact and Acknowledgements

If you should have any questions about this testimony, please contact me at (202) 512-6240 or via E-mail at [koontz1@gao.gov](mailto:koontz1@gao.gov). Other major contributors to this testimony included Barbara Collier, Felipe Colón, Jr., Larry Crosland, John de Ferrari, and Elizabeth Roach.

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## Attachment I: Selected GAO Products Related to Electronic Commerce and Electronic Government

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### Electronic Commerce

*Internet Cigarette Sales: Limited Compliance and Enforcement of the Jenkins Act Result in Loss of State Tax Revenue.* [GAO-03-714T](#). Washington, D.C.: May 1, 2003.

*Electronic Procurement: Business Strategy Needed for GSA's Advantage System.* [GAO-03-328](#). Washington, D.C.: February 19, 2002.

*Internet Gambling: An Overview of the Issues.* [GAO-03-89](#). Washington, D.C.: December 2, 2002.

*International Electronic Commerce: Definitions and Policy Implications.* [GAO-02-404](#). Washington, D.C.: March 1, 2002.

*Electronic Commerce: Small Business Participation in Selected On-line Procurement Programs.* [GAO-02-1](#). Washington, D.C.: October 29, 2001.

*On-Line Trading: Investor Protections Have Improved but Continued Attention Is Needed.* [GAO-01-858](#). Washington, D.C.: July 20, 2001.

*Internet Pharmacies: Adding Disclosure Requirements Would Aid State and Federal Oversight.* [GAO-01-69](#). Washington, D.C.: October 19, 2000.

*Sales Taxes: Electronic Commerce Growth Presents Challenges; Revenue Losses Are Uncertain.* [GGD/OCE-00-165](#). Washington, D.C.: June 30, 2000.

*Commodity Exchange Act: Issues Related to the Regulation of Electronic Trading Systems.* [GGD-00-99](#). Washington, D.C.: May 5, 2000.

*Trade with the European Union: Recent Trends and Electronic Commerce Issues.* [GAO/T-NSIAD-00-46](#). Washington, D.C.: October 13, 1999.

---

*Electronic Banking: Enhancing Federal Oversight of Internet Banking Activities.* [GAO/T-GGD-99-152](#). Washington, D.C.: August 3, 1999.

*Electronic Banking: Enhancing Federal Oversight of Internet Banking Activities.* [GAO/GGD-99-91](#). Washington, D.C.: July 6, 1999.

*Securities Fraud: The Internet Poses Challenges to Regulators and Investors.* [GAO/T-GGD-99-34](#). Washington, D.C.: March 22, 1999.

*Retail Payments Issues: Experience with Electronic Check Presentment.* [GAO/GGD-98-145](#). Washington, D.C.: July 14, 1998.

*Identity Fraud: Information on Prevalence, Cost, and Internet Impact is Limited.* [GAO/GGD-98-100BR](#). Washington, D.C.: May 1, 1998.

*Electronic Banking: Experiences Reported by Banks in Implementing On-line Banking.* [GAO/GGD-98-34](#). Washington, D.C.: January 15, 1998.

---

## Electronic Government—Agency-Specific Initiatives

*IRS's 2002 Tax Filing Season: Returns and Refunds Processed Smoothly; Quality of Assistance Improved.* [GAO-03-314](#). Washington, D.C.: December 20, 2002.

*Tax Administration: Electronic Filing's Past and Future Impact on Processing Costs Dependent on Several Factors.* [GAO-02-205](#). Washington, D.C.: January 10, 2002.

*GSA On-Line Procurement Programs Lack Documentation and Reliability Testing.* [GAO-02-229R](#). Washington, D.C.: December 21, 2001.

*U.S. Postal Service: Update on E-Commerce Activities and Privacy Protections.* [GAO-02-79](#). Washington, D.C.: December 21, 2001.

*Computer-Based Patient Records: Better Planning and Oversight By VA, DOD, and IHS Would Enhance Health Data Sharing.* [GAO-01-459](#). Washington, D.C.: April 30, 2001.

*USDA Electronic Filing: Progress Made, But Central Leadership and Comprehensive Implementation Plan Needed.* [GAO-01-324](#). Washington, D.C.: February 28, 2001.

---

*U.S. Postal Service: Postal Activities and Laws Related to Electronic Commerce.* [GAO/GGD-00-188](#). Washington, D.C.: September 7, 2000.

*U.S. Postal Service: Electronic Commerce Activities and Legal Matters.* [GAO/T-GGD-00-195](#). Washington, D.C.: September 7, 2000.

*Defense Management: Electronic Commerce Implementation Strategy Can Be Improved.* [GAO/NSIAD-00-108](#). Washington, D.C.: July 18, 2000.

*Food Stamp Program: Better Use of Electronic Data Could Result in Disqualifying More Recipients Who Traffic Benefits.* [GAO/RCED-00-61](#). Washington, D.C.: March 7, 2000.

*National Archives: The Challenge of Electronic Records Management.* [GAO/T-GGD-00-24](#). Washington, D.C.: October 20, 1999.

*National Archives: Preserving Electronic Records in an Era of Rapidly Changing Technology.* [GAO/GGD-99-94](#). Washington, D.C.: July 19, 1999.

---

## Electronic Government—General

*Geographic Information Systems: Challenges to Effective Data Sharing.* [GAO-03-874T](#). Washington, D.C.: June 10, 2003.

*Electronic Government: Success of the Office of Management and Budget's 25 Initiatives Depends on Effective Management and Oversight.* [GAO-03-495T](#). Washington, D.C.: March 13, 2003.

*Electronic Government: Selection and Implementation of the Office of Management and Budget's 24 Initiatives.* [GAO-03-229](#). Washington, D.C.: November 22, 2002.

*Electronic Government: Proposal Addresses Critical Challenges.* [GAO-02-1083T](#). Washington, D.C.: September 18, 2002.

*Information Management: Update on Implementation of the 1996 Electronic Freedom of Information Act Amendments.* [GAO-02-493](#). Washington, D.C.: August 30, 2002.

---

*Information Technology: OMB Leadership Critical to Making Needed Enterprise Architecture and E-government Progress.* [GAO-02-389T](#). Washington, D.C.: March 21, 2002.

*Electronic Government: Challenges to Effective Adoption of the Extensible Markup Language.* [GAO-02-327](#). Washington, D.C.: April 5, 2002.

*Information Resources Management: Comprehensive Strategic Plan Needed to Address Mounting Challenges.* [GAO-02-292](#). Washington, D.C.: February 22, 2002.

*Elections: Perspectives on Activities and Challenges Across the Nation.* [GAO-02-3](#). Washington, D.C.: October 15, 2001.

*Electronic Government: Better Information Needed on Agencies' Implementation of the Government Paperwork Elimination Act.* [GAO-01-1100](#). Washington, D.C.: September 28, 2001.

*Electronic Government: Challenges Must Be Addressed With Effective Leadership and Management.* [GAO-01-959T](#). Washington, D.C.: July 11, 2001.

*Electronic Government: Selected Agency Plans for Implementing the Government Paperwork Elimination Act.* [GAO-01-861T](#). Washington, D.C.: June 21, 2001.

*Information Management: Electronic Dissemination of Government Publications.* [GAO-01-428](#). Washington, D.C.: March 30, 2001.

*Information Management: Progress in Implementing the 1996 Electronic Freedom of Information Act Amendments.* [GAO-01-378](#). Washington, D.C.: March 16, 2001.

*Regulatory Management: Communication About Technology-Based Innovations Can Be Improved.* [GAO-01-232](#). Washington, D.C.: February 12, 2001.

*Electronic Government: Opportunities and Challenges Facing the FirstGov Web Gateway.* [GAO-01-87T](#). Washington, D.C.: October 2, 2000.

---

*Electronic Government: Government Paperwork Elimination Act Presents Challenges for Agencies.* [GAO/AIMD-00-282](#). Washington, D.C.: September 15, 2000.

*Internet: Federal Web-based Complaint Handling.* [GAO/AIMD-00-238R](#). Washington, D.C.: July 7, 2000.

*Federal Rulemaking: Agencies' Use of Information Technology to Facilitate Public Participation.* [GAO/GGD-00-135R](#). Washington, D.C.: June 30, 2000.

*Electronic Government: Federal Initiatives Are Evolving Rapidly But They Face Significant Challenges.* [GAO/T-AIMD/GGD-00-179](#). Washington, D.C.: May 22, 2000.

*Information Technology: Comments on Proposed OMB Guidance for Implementing the Government Paperwork Elimination Act.* [GAO/AIMD-99-228R](#). Washington, D.C.: July 2, 1999.

---

## Electronic Signatures

*Bank Regulators' Evaluation of Electronic Signature Systems.* [GAO-01-129R](#). Washington, D.C.: November 8, 2000.

*Electronic Signature: Sanction of the Department of State's System.* [GAO/AIMD-00-227R](#). Washington, D.C.: July 10, 2000.

---

## Internet

*Internet Management: Limited Progress on Privatization Project Makes Outcome Uncertain.* [GAO-02-805T](#). Washington, D.C.: June 12, 2002.

*Telecommunications: Characteristics and Competitiveness of the Internet Backbone Market.* [GAO-02-16](#). Washington, D.C.: October 16, 2001.

*Telecommunications: Characteristics and Choices of Internet Users.* [GAO-01-345](#). Washington, D.C.: February 16, 2001.

*Telecommunications: Technological and Regulatory Factors Affecting Consumer Choice of Internet Providers.* [GAO-01-93](#). Washington, D.C.: October 12, 2000.

---

*Department of Commerce: Relationship with the Internet Corporation for Assigned Names and Numbers.* [GAO/OGC-00-33R](#). Washington, D.C.: July 7, 2000.

---

## Privacy

*Internet Privacy: Implementation of Federal Guidance for Agency Use of “Cookies.”* [GAO-01-424](#). Washington, D.C.: April 27, 2001.

*Record Linkage and Privacy: Issues in Creating New Federal Research and Statistical Information.* [GAO-01-126SP](#). Washington, D.C.: April 2001.

*Internet Privacy: Federal Agency Use of Cookies.* [GAO-01-147R](#). Washington, D.C.: October 20, 2000.

*Internet Privacy: Comparison of Federal Agency Practices with FTC’s Fair Information Principles.* [GAO-01-113T](#), Washington, D.C.: October 11, 2000.

*Internet Privacy: Comparison of Federal Agency Practices with FTC’s Fair Information Principles.* [GAO/AIMD-00-296R](#). Washington, D.C.: September 11, 2000.

*Internet Privacy: Agencies’ Efforts to Implement OMB’s Privacy Policy.* [GAO/GGD-00-191](#). Washington, D.C.: September 5, 2000.

*Social Security Numbers: Subcommittee Questions Concerning the Use of the Number for Purposes Not Related to Social Security.* [GAO/HEHS/AIMD-00-253R](#). Washington, D.C.: July 7, 2000.

---

## Security

*Electronic Government: Challenges to the Adoption of Smart Card Technology.* [GAO-03-1108T](#). Washington, D.C.: September 9, 2003.

*Electronic Government: Progress in Promoting Adoption of Smart Card Technology.* [GAO-03-144](#). Washington, D.C.: January 3, 2003.

*Computer Security: Weaknesses Continue to Place Critical Federal Operations and Assets at Risk.* [GAO-01-600T](#). Washington, D.C.: April 5, 2001.

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*Information Security: Advances and Remaining Challenges to Adoption of Public Key Infrastructure Technology.* [GAO-01-277](#).  
Washington, D.C.: February 26, 2001.

*Information Security: IRS Electronic Filing Systems.* [GAO-01-306](#).  
Washington, D.C.: February 16, 2001.

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