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Leadership Needed to Confront Serious Challenges and Emerging Issues

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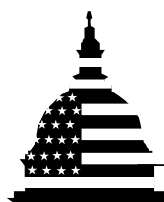
G A O
Accountability ★ Integrity ★ Reliability

Mr. Chairman and Members of the Subcommittee:

It is a pleasure to be here to participate in today's hearing on establishing a federal chief information officer (CIO). As you know, the rapid pace of technological change and innovation has offered unprecedented opportunities for both the government and commercial sectors to use information technology (IT) to improve operational performance, reduce costs, and enhance service responsiveness to citizens and consumers. Yet at the same time, a range of issues have emerged about how to best manage and integrate complex information technologies and management processes so that they are aligned with mission goals, strategies and objectives.

In 1999 we issued a series of reports—our Performance and Accountability Series—that describe management challenges confronting individual agencies and the government as a whole.[1] One of the many challenges facing the government is effectively using information technology to help achieve program results. Since 1990, we have also periodically reported on government operations that we have assessed as high risk because of their greater vulnerability to waste, fraud, abuse, or mismanagement. In the information resources and technology management area, we have designated information security[2] and four agency IT modernization efforts as high risk.[3]

The government has made improvements in its IT management, such as updating policies and guidance to reflect best practices. Moreover, agencies are responding with concerted actions to effectively address critical IT management shortcomings. Nevertheless, our work shows that agencies continue to be challenged by (1) fundamental weaknesses in information technology investment selection and management control processes, (2) slow progress in designing and implementing information technology architectures, (3) inadequate or immature software development, cost estimating, and systems acquisition practices, (4) the need to build effective chief information officer leadership and organizations, and (5) significant computer security weaknesses.

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[1]*Major Management Challenges and Program Risks: An Executive Summary* (GAO/OCG-99-ES, February 1999) provides an overview of this series.

[2]Beginning in 1997, we also designated the Year 2000 computing challenge as a high-risk area.

[3]*High-Risk Series: An Overview* (GAO/HR-95-1, February 1995), *High-Risk Series: Information Management and Technology* (GAO/HR-97-9, February, 1997), and *High-Risk Series: An Update* (GAO/HR-99-1, January 1999).

Sustained and focused central leadership is key to improving the federal IT performance track record. Two legislative proposals for helping achieve such leadership have been introduced by members of this Subcommittee–H.R. 4670, the Chief Information Officer of the United States Act of 2000, introduced by Representative Turner; and H.R. 5024, the Federal Information Policy Act of 2000, introduced by Representative Davis.

In my remarks today, I will

*   briefly describe the background of the federal government's current information resources and technology management framework,

*   briefly explain the structure and responsibilities of existing state and foreign governmentwide CIO models,

*   discuss the federal CIO approaches proposed by the two bills, and

*   discuss the type of leadership responsibilities that we believe a federal CIO should possess.

Background

The federal government's information resources and technology management structure has its foundation in six laws: the Federal Records Act, the Privacy Act of 1974, the Computer Security Act of 1987, the Paperwork Reduction Act of 1995,[4] the Clinger-Cohen Act of 1996, and the Government Paperwork Elimination Act of 1998. Taken together, these laws largely lay out the information resources and technology management responsibilities of the Office of Management and Budget (OMB), federal agencies, and other entities, such as the National Institute of Standards and Technology.

In general, under the government's current legislative framework, OMB is responsible for providing direction on governmentwide information resources and technology management and overseeing agency activities in these areas, including analyzing major agency information technology investments. Among OMB's responsibilities are

*   ensuring agency integration of information resources management plans, program plans, and budgets for acquisition and use of information

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[4]The Paperwork Reduction Act of 1995 revised the information resources management responsibilities established under the Paperwork Reduction Act of 1980, as amended in 1986.

technology and the efficiency and effectiveness of interagency information technology initiatives;

- developing, as part of the budget process, a mechanism for analyzing, tracking, and evaluating the risks and results of all major capital investments made by an executive agency for information systems;[5]

- directing and overseeing implementation of policy, principles, standards, and guidelines for the dissemination of and access to public information;

- encouraging agency heads to develop and use best practices in information technology acquisition;

- reviewing proposed agency information collections to minimize information collection burdens and maximize information utility and benefit; and

- developing and overseeing implementation of privacy and security policies, principles, standards, and guidelines.

   Agencies, in turn, are accountable for the effective and efficient development, acquisition, and use of information technology in their organizations. For example, the Paperwork Reduction Act of 1995 and the Clinger-Cohen Act of 1996 require agency heads, acting through agency CIOs, to

- better link their information technology planning and investment decisions to program missions and goals;

- develop and implement a sound information technology architecture;

- implement and enforce information technology management policies, procedures, standards, and guidelines;

- establish policies and procedures for ensuring that information technology systems provide reliable, consistent, and timely financial or program performance data; and

- implement and enforce applicable policies, procedures, standards, and guidelines on privacy, security, disclosure, and information sharing.

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[5]This responsibility is in addition to OMB's role in assisting the President in reviewing agency budget submissions and compiling the President's budget, as discussed in 31 U.S.C. Chapter 11.

Another important organization in federal information resources and technology management—the CIO Council—was established by the President in July 1996. Specifically, Executive Order 13011 established the CIO Council as the principal interagency forum for improving agency practices on such matters as the design, modernization, use, sharing, and performance of agency information resources. The Council, chaired by OMB's Deputy Director for Management with a Vice Chair selected from among its members, is tasked with (1) developing recommendations for overall federal information technology management policy, procedures, and standards, (2) sharing experiences, ideas, and promising practices, (3) identifying opportunities, making recommendations for, and sponsoring cooperation in using information resources, (4) assessing and addressing workforce issues, (5) making recommendations and providing advice to appropriate executive agencies and organizations, and (6) seeking the views of various organizations. Because it is essentially an advisory body, the CIO Council must rely on OMB's support to see that its recommendations are implemented through federal information management policies, procedures, and standards. With respect to Council resources, according to its charter, OMB and the General Services Administration are to provide support and assistance, which can be augmented by other Council members as necessary.

State and Foreign Government CIO Models Exist But Approaches Vary

CIOs or equivalent positions exist at the state level and in other countries, although no single preferred model has emerged. The specific roles, responsibilities, and authorities assigned to the CIO or CIO-type position vary, reflecting the needs and priorities of the particular government. This is consistent with research presented in our *Executive Guide: Maximizing the Success of Chief Information Officers—Learning from Leading Organizations,*[6] which points out that there is no one right way to establish a CIO position and that leading organizations are careful to ensure that information management leadership positions are appropriately defined and implemented to meet their unique business needs.

Regardless of the differences in approach, the success of a CIO will typically rest on the application of certain fundamental principles. While our executive guide was specifically intended to help individual federal agencies maximize the success of their CIOs, several of the principles outlined in the guide also apply to the establishment of a governmentwide CIO. In particular, our research of leading organizations demonstrated that it is important for the organization to employ enterprisewide leaders who

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[6]GAO/AIMD-00-83, Exposure Draft, March 2000.

embrace the critical role of information technology and reach agreement on the CIO's leadership role. Moreover, the CIO must possess sufficient stature within the organization to influence the planning process.

We have not evaluated the effectiveness of state and foreign government CIOs or equivalent positions; however, these positions appear to apply some of these same principles. With respect to the states, according to the National Association of State Information Resource Executives, the vast majority have senior executives with statewide authority for IT. State CIOs are usually in charge of developing statewide IT plans and approving statewide technical IT standards, budgets, personnel classifications, salaries, and resource acquisitions although the CIO's authority depends on the specific needs and priorities of the governors. Many state CIOs report directly to the state's governor with the trend moving in that direction. In some cases, the CIO is guided by an IT advisory board. As the president of the National Association of State Information Resource Executives noted in prior testimony before this Subcommittee, "IT is how business is delivered in government; therefore, the CIO must be a party to the highest level of business decisions . . . [and] needs to inspire the leaders to dedicate political capital to the IT agenda."[7]

National governments in other countries have also established a central information technology coordinating authority and, like the states, have used different implementation approaches in doing so. Preliminary results of a recent survey conducted by the International Council for Information Technology in Government Administration indicate that 8 of 11 countries surveyed have a governmentwide CIO, although the structure, roles, and responsibilities varied. Let me briefly describe the approaches employed by three foreign governments to illustrate this variety.

- Australia's Department of Communications, Information Technology and the Arts has responsibility for, among other things, (1) providing strategic advice and support to the government for moving Australia ahead in the information economy and (2) developing policies and procedures and helping to coordinate crosscutting efforts toward e-government.

- The United Kingdom's Office of the E-Envoy acts in a capacity analogous to a "national government" CIO in that it works to coordinate activities across government and with public, private, and international groups to

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[7]Testimony of Otto Doll, President, National Association of State Information Resource Executives before the U.S. House of Representatives, Committee on Government Reform, Subcommittee on Government Management, Information and Technology, March 24, 2000.

(1) develop a legal, regulatory and fiscal environment that facilitates e-commerce, (2) help individuals and businesses take full advantage of the opportunities provided by information and communications technologies, (3) ensure that the government of the United Kingdom applies global best practices in its use of information and communications technologies, and (4) ensure that government and business decisions are informed by reliable and accurate e-commerce monitoring and analysis.

- Canada's Office of the CIO is contained within the Treasury Board Secretariat, a crosscutting organization whose mission is to manage the government's human, financial, information, and technology resources. The CIO is responsible for determining and implementing a strategy that will accomplish governmentwide IT goals. Moreover, the CIO is to (1) provide leadership, coordination and broad direction in the use of IT; (2) facilitate enterprisewide solutions to crosscutting IT issues; and (3) serve as technology strategist and expert adviser to Treasury Board Ministers and senior officials across government. The CIO also develops a Strategic Directions document that focuses on the management of critical IT, information management, and service delivery issues facing the government. This document is updated regularly and is used by departments and agencies as a guide.

While these countries' approaches differ in terms of specific CIO or CIO-type roles and responsibilities, in all cases the organization has responsibility for coordinating governmentwide implementation of e-government and providing leadership in the development of the government's IT strategy and standards.

Proposed Legislation Provides a Stronger Central Focus to the Government's Management of Information Technology

As you know, the Congress is currently considering legislation to establish a federal CIO. Specifically, two proposals before this Subcommittee—H.R. 4670, the Chief Information Officer of the United States Act of 2000, and H.R. 5024, the Federal Information Policy Act of 2000—share a common call for central IT leadership from a federal CIO, although they differ in how the roles, responsibilities, and authorities of the position would be established.

Several similarities exist in the two bills:

- Both elevate the visibility and focus of information resources and technology management by establishing a federal CIO who (1) is appointed by the President with the advice and consent of the Senate, (2) reports directly to the President, (3) is a Cabinet-level official, and (4) provides central leadership. The importance of such high level visibility

should not be underestimated. Our studies of leading public and private-sector organizations have found that successful CIOs commonly are full members of executive management teams.[8]

- Both leave intact OMB's role and responsibility to review and ultimately approve agencies' information technology funding requests for inclusion in the President's budget submitted to the Congress each year. However, both require the federal CIO to review and recommend to the President and the Director of OMB changes to the IT budget proposals submitted by agencies. As we have previously testified before your Subcommittee, an integrated approach to budgeting and feedback is absolutely critical for progress in government performance and management.[9] Certainly, close coordination between the federal CIO and OMB would be necessary to coordinate the CIO's technical oversight and OMB's budget responsibilities.

- Finally, both bills establish the existing federal CIO Council in statute. Just as with the Chief Financial Officers' Council, there are important benefits associated with having a strong statutory base for the CIO Council. Legislative foundations transcend presidential administrations, fluctuating policy agendas, and the frequent turnover of senior appointees in the executive branch. Having congressional consensus and support for the Council helps ensure continuity of purpose over time and allows constructive dialogue between the two branches of government on rapidly changing management and information technology issues before the Council. Moreover, as prime users of performance and financial information, having the Council statutorily based can help provide the Congress with an effective oversight tool in gauging the progress and impact of the Council on advancing effective involvement of agency CIOs in governmentwide IT initiatives.

The two bills also set forth duties that are consistent with, and expand upon, the duties of the current CIO Council. For example, the Council would be responsible for coordinating the acquisition and provision of common infrastructure services to facilitate communication and data exchange among agencies and with state, local, and tribal governments.

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[8]*Executive Guide: Improving Mission Performance Through Strategic Information Management and Technology* (GAO/AIMD-94-115, May 1994) and GAO/AIMD-00-83, Exposure Draft, March 2000.

[9]*Office of Management and Budget: Future Challenges to Management* (GAO/T-GGD/AIMD-00-141, April 7, 2000).

While the bills have similarities, as a result of contrasting approaches, the two bills have major differences. In particular, H.R. 5024 vests in the federal CIO the information resources and technology management responsibilities currently assigned to OMB as well as oversight of related activities of the General Services Administration and promulgation of information system standards developed by the National Institute of Standards and Technology. On the other hand, H.R 4670 generally does not change the responsibilities of these agencies; instead it calls on the federal CIO to advise agencies and the Director of OMB and to consult with nonfederal entities, such as state governments and the private sector.

Appendix I provides more detail on how information resources and technology management functions granted to the federal CIO compare among the two bills, and with OMB's current responsibilities.

Let me turn now to a few implementation issues associated with both of these bills. One such issue common to both is that effective implementation will require that appropriate presidential attention and support be given to the new federal CIO position and that adequate resources, including staffing and funding, be provided. As discussed below, each bill likewise has unique strengths and challenges.

- **H.R. 4670:** This bill creates an Office of Information Technology within the Executive Office of the President, headed by a federal CIO, with a limit of 12 staff. Among the duties assigned to the CIO are (1) providing leadership in innovative use of information technology, (2) identifying opportunities and coordinate major multi-agency information technology initiatives, and (3) consulting with leaders in information technology management in state governments, the private sector, and foreign governments. OMB's statutory responsibilities related to information resources and technology management would remain largely unchanged under this bill.

  One strength of this bill is that it would allow a federal CIO to focus full-time attention on promoting key information technology policy and crosscutting issues within government and in partnership with other organizations without direct responsibility for implementation and oversight, which would remain the responsibility of OMB and the agencies. Moreover, the federal CIO could promote collaboration among agencies on crosscutting issues, adding Cabinet-level support to efforts now initiated and sponsored by the CIO Council. Further, the federal CIO could establish and/or buttress partnerships with state, local, and tribal governments, the private sector, or foreign entities. Such partnerships were key to the government's Year 2000 (Y2K) success and could be

essential to addressing other information technology issues, such as critical infrastructure protection, since private-sector systems control most of our nation's critical infrastructures (e.g., energy, telecommunications, financial services, transportation, and vital human services).

A major challenge associated with H.R. 4670's approach, on the other hand, is that federal information technology leadership would be shared. While the CIO would be the President's principal adviser on these issues, OMB would retain critical statutory responsibilities in this area. For example, both the federal CIO and OMB would have a role in overseeing the government's IT and interagency initiatives. Certainly, it would be crucial for the OMB Director and the federal CIO to mutually support each other and work effectively together to ensure that their respective roles and responsibilities are clearly communicated. Without a mutually constructive working relationship with OMB, the federal CIO's ability to achieve the potential improvements in IT management and cross-agency collaboration would be impaired.

- **H.R. 5024:** This bill establishes an Office of Information Policy within the Executive Office of the President and headed by a federal CIO. The bill would substantially change the government's existing statutory information resources and technology management framework because it shifts much of OMB's responsibilities in these areas to the federal CIO. For example, it calls for the federal CIO to develop and oversee the implementation of policies, principles, standards, and guidance with respect to (1) information technology, (2) privacy and security, and (3) information dissemination.

  A strength of this approach would be the single, central focus for information resources and technology management in the federal government. A primary concern we have with OMB's current structure as it relates to information resources and technology management is that, in addition to their responsibilities in these areas, both the Deputy Director for Management and the Administrator of the Office of Information and Regulatory Affairs (OIRA) have other significant duties, which necessarily restrict the amount of attention that they can give to information resources and technology management issues.[10] For example, much of OIRA is staffed to act on 3,000 to 5,000 information collection requests from agencies per year, review about 500 proposed and final rules each

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[10]While OMB's Director is responsible for these functions, they have generally been delegated to the Office of Information and Regulatory Affairs, which reports to the Deputy Director for Management.

year, and to calculate the costs and benefits of all federal regulations. A federal CIO, like agency CIOs, should be primarily concerned with information resources and technology management. This bill would clearly address this concern.

Another important strength of H.R. 5024 is that the federal CIO would be the sole central focus for information resources and technology management and could be used to resolve potential conflicts stemming from conflicting perspectives or goals within the executive branch agencies.

In contrast, a major challenge associated with implementing H.R. 5024 is that by removing much of the responsibility for information resources and technology management from OMB, the federal CIO could lose the leverage associated with OMB's budget-review role. A strong linkage with the budget formulation process is often a key factor in gaining serious attention for management initiatives throughout government, and reinforces the priorities of federal agencies' management goals.

Central and Effective Federal Information Resources and Technology Management Leadership Is Needed

Regardless of approach, we agree that strong and effective central information resources and technology management leadership is needed in the federal government. A central focal point such as a federal CIO can play the essential role of ensuring that attention in these areas is sustained. Increasingly, the challenges the government faces are multidimensional problems that cut across numerous programs, agencies, and governmental tools. Although the respective departments and agencies should have the primary responsibility and accountability to address their own issues—and both bills maintain these agency roles—central leadership has the responsibility to keep everybody focused on the big picture by identifying the agenda of governmentwide issues needing attention and ensuring that related efforts are complementary rather than duplicative. Another task facing central leadership is serving as a catalyst and strategist to prompt agencies and other critical players to come to the table and take ownership for addressing the agenda of governmentwide information resources and technology management issues.

In the legislative deliberations on the Clinger-Cohen Act, we supported strengthened central management through the creation of a formal CIO

position for the federal government.[11] A CIO for the federal government could provide a strong, central point of coordination for the full range of governmentwide information resources management and technology issues, including (1) reengineering and/or consolidating interagency or governmentwide process and technology infrastructure; (2) managing shared assets; and (3) evaluating attention, progress evaluations, and assistance provided to high-risk, complex information systems modernization efforts.

In particular, a federal CIO could provide sponsorship, direction, and sustained focus on the major challenges the government is facing in areas such as critical infrastructure protection and security, e-government, and large-scale IT investments. For example, to be successful, e-government initiatives designed to improve citizen access to government must overcome some of the basic challenges that have plagued information systems for decades – lack of executive level sponsorship, involvement, and controls; inadequate attention to business and technical architectures; adherence to standards; and security. In the case of e-government, a CIO could (1) help set priorities for the federal government; (2) ensure that agencies consider interagency web site possibilities, including how best to implement portals or central web access points that provide citizens access to similar government services; and (3) help establish funding priorities, especially for crosscutting e-government initiatives.

The government's success in combating the Year 2000 problem demonstrated the benefit of strong central leadership. As our Year 2000 lessons learned report being released today makes clear, the leadership of the Chair of the President's Council on Year 2000 Conversion was invaluable in combating the Year 2000 problem.[12] Under the Chair's leadership, the government's actions went beyond the boundaries of individual programs or agencies and involved governmentwide oversight, interagency cooperation, and cooperation with partners, such as state and local governments, the private sector, and foreign governments.

It is important to maintain this same momentum of executive-level attention to information management and technology decisions within the

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[11]*Improving Government: Actions Needed to Sustain and Enhance Management Reforms* (GAO/T-OCG-94-1, January 27, 1994), *Government Reform: Using Reengineering and Technology to Improve Government Performance* (GAO/T-OCG-95-2, February 2, 1995), and *Government Reform: Legislation Would Strengthen Federal Management of Information and Technology* (GAO/T-AIMD-95-205, July 25, 1995).

[12]*Year 2000 Computing Challenge: Lessons Learned Can Be Applied to Other Management Challenges* (GAO/AIMD-00-290, September 12, 2000).

federal government. The information issues confronting the government in the new Internet-based technology environment rapidly evolve and carry significant impact for future directions. A federal CIO could maintain and build upon Y2K actions in leading the government's future IT endeavors. Accordingly, our Y2K lessons learned report calls for the Congress to consider establishing a formal chief information officer position for the federal government to provide central leadership and support.

Consensus has not been reached within the federal community on the need for a federal CIO. Department and agency responses to questions developed by the Chairman and Ranking Minority Member of the Senate Committee on Governmental Affairs regarding opinions about the need for a federal CIO found mixed reactions. In addition, at our March 2000 Y2K Lessons Learned Summit, which included a broad range of public and private-sector IT managers and policymakers, some participants did not agree or were uncertain about whether a federal CIO was needed. Further, in response to a question before this Subcommittee on the need for a federal IT leader accountable to the President, the Director of OMB stated that OMB's Deputy Director for Management, working with the head of the Office of Information and Regulatory Affairs, can be expected to take a federal information technology leadership role. The Director further stated that he believed that "the right answer is to figure out how to continue to use the authority and the leadership responsibilities at the Office of Management and Budget to play a lead role in this [IT] area."

In conclusion, Mr. Chairman, the two bills offered by members of this Subcommittee both deal with the need for central leadership, while addressing the sharing of responsibilities with OMB in different ways. Both bills offer different approaches to problems that have been identified and should be dealt with in order to increase the government's ability to use the information resources at its disposal effectively, securely, and with the best service to the American people. Regardless of approach, a central focal point such as a federal CIO can play the essential role of ensuring that attention to information technology issues is sustained.

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

Contacts and Acknowledgments

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Tamra Goldstein, Linda Lambert, Thomas Noone, David Plocher, and Tomas Ramirez.

Comparison of OMB's Current Functions and Those Assigned to the Federal CIO by H.R. 4670 and H.R. 5024

		CIO Responsibility	
Function	**OMB's Current Functions**[a]	**H.R. 4670**	**H.R. 5024**
Budget	Develop, as part of the budget process, a mechanism for analyzing, tracking, and evaluating the risks and results of all major capital investments made by an executive agency for information systems. Implement periodic budgetary reviews of agency information resources management activities to ascertain efficiency and effectiveness of IT in improving agency mission performance. Take actions through the budgetary and appropriations management process to enforce agency accountability for information resources management and IT investments, including the reduction of funds.	Review and recommend to the President and the Director of OMB changes to budget and legislative proposals of agencies.	Review and recommend to the President and the Director of OMB changes to budget and legislative proposals of agencies. Advise and assist the Director of OMB in developing, as part of the budget process, a mechanism for analyzing, tracking, and evaluating the risks and results of all major capital investments made by an executive agency for information systems. Implement periodic budgetary reviews of agency information resources management activities to ascertain efficiency and effectiveness of IT in improving agency mission performance. Request that the Director of OMB take action, including involving the budgetary or appropriations management process, to enforce agency accountability for information resources management and IT investments, including the reduction of funds.
CIO Council	The Deputy Director for Management serves as the Chairperson of the CIO Council, which was created by Executive Order.	Serves as the Chairperson of the CIO Council, established by the bill in statute.	Serves as the Chairperson of the CIO Council, established by the bill in statute.
Electronic records	In consultation with the Administrator of the National Telecommunications and Information Administration, develop and implement procedures for the use and acceptance of electronic signatures by agencies by April 21, 2000. Ensure that, no later than October 21, 2003, agencies provide for the option of the electronic maintenance, submission or disclosure of information and for the use and acceptance of electronic signatures, where	Advise the Director of OMB on electronic records.[b]	In consultation with the Director of OMB and the Administrator of the National Telecommunications and Information Administration, develop and implement procedures for the use and acceptance of electronic signatures by agencies by October 1, 2000. Ensure that, no later than October 1, 2003, agencies provide for the option of the electronic maintenance, submission or disclosure of information and for the use and acceptance of electronic signatures, where

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		CIO Responsibility	
Function	**OMB's Current Functions[a]**	**H.R. 4670**	**H.R. 5024**
Electronic records (cont'd)	practicable.		practicable.
	Develop and implement procedures to permit private employers to store and file electronically with agencies forms containing information pertaining to the employees of such employers.		In consultation with the Director of OMB, develop and implement procedures to permit private employers to store and file electronically with agencies forms containing information pertaining to the employees of such employers.
	In consultation with the Administrator of the National Telecommunications and Information Administration study and periodically report on the use of electronic signatures.		In consultation with the Director of OMB and the Administrator of the National Telecommunications and Information Administration study and periodically report on the use of electronic signatures.
			Assisted by the CIO Council and others, monitor the implementation of the requirements of the Government Paperwork Elimination Act, the Electronic Signatures in Global and National Commerce Act and related laws.
Information dissemination	Provide direction and oversee activities of agencies with respect to the dissemination of and public access to information.	Advise the Director of OMB on information dissemination.[b]	Provide direction and oversee activities of agencies with respect to the dissemination of and public access to information.
	Foster greater sharing, dissemination, and access to public information.		Foster greater sharing, dissemination, and access to public information.
	Develop and oversee the implementation of policies, principles, standards, and guidance with respect to information dissemination.		Develop and oversee the implementation of policies, principles, standards, and guidance with respect to information dissemination.
	Cause to be established and oversee an electronic Government Information Locator Service (GILS).		Cause to be established and oversee an electronic GILS.
Information resources management policy	Develop, coordinate, and oversee the implementation of uniform information resources management policies, principles, standards, and guidelines.	Advise the Director of OMB on information resources management policy.[b]	Develop, coordinate, and oversee the implementation of uniform information resources management policies, principles, standards, and guidelines.
	Oversee the development and		Oversee the development and

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Function	**OMB's Current Functions[a]**	**H.R. 4670**	**H.R. 5024**
Information resources management policy (cont'd)	implementation of best practices in information resources management.		implementation of best practices in information resources management.
	Oversee agency integration of program and management functions with information resources management functions.		Oversee agency integration of program and management functions with information resources management functions.
	In consultation with the Administrator of General Services, the Director of the National Institute of Standards and Technology, the Archivist of the United States, and the Director of the Office of Personnel Management, develop and maintain a governmentwide strategic plan for information resources management.		In consultation with the Director of OMB, the Administrator of General Services, the Director of the National Institute of Standards and Technology, the Archivist of the United States, the Director of the Office of Personnel Management, and the CIO Council, develop and maintain a governmentwide strategic plan for information resources management.
	Initiate and review proposals for changes in legislation, regulations, and agency procedures to improve information resources management practices.		Initiate and review proposals for changes in legislation, regulations, and agency procedures to improve information resources management practices.
	Monitor information resources management training for agency personnel.		Monitor information resources management training for agency personnel.
	Keep the Congress informed on the use of information resources management best practices to improve agency program performance.		Keep the Congress informed on the use of information resources management best practices to improve agency program performance.
	Periodically review agency information resources management activities.		Periodically review agency information resources management activities.
	Report annually to the Congress on information resources management.		Report annually to the Congress on information resources management.
Information technology management	In consultation with the National Institute of Standards and Technology and the General Services Administration, develop and oversee the implementation of	Serve as the principal adviser to the President on matters relating to the development, application, and management of IT by the federal government.	Serve as the principal adviser to the President on matters related to the efficient and effective development, use, and management of IT and other

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		CIO Responsibility	
Function	**OMB's Current Functions[a]**	**H.R. 4670**	**H.R. 5024**
Information technology management (cont'd)	policies, principles, standards, and guidelines for IT functions and activities. Ensure that agencies integrate information resources plans, program plans, and budgets for acquisition and use of technology. Provide direction and oversee activities of agencies with respect to the acquisition and use of IT. Promote the use of IT by the federal government to improve the productivity, efficiency, and effectiveness of federal programs. Oversee the effectiveness of, and compliance with, directives issued under section 110 of the Federal Property and Administrative Services Act (which established the Information Technology Fund). Coordinate OIRA policies regarding IT acquisition with the Office of Federal Procurement Policy. Oversee the development and implementation of computer system standards and guidance issued by the Secretary of Commerce through the National Institute of Standards and Technology. Designate agencies, as appropriate, to be executive agents for governmentwide acquisitions of IT. Compare agency performance in using IT. Encourage use of performance-based management in complying with IT management requirements. Evaluate agency practices with	Advise the President on opportunities to use IT to improve the efficiency and effectiveness of programs and operations of the federal government. Advise the Director of OMB on IT management.[b] Report annually to the President and the Congress on IT management. Promote agency investments in IT that enhance service delivery to the public, improve cost-effective government operations, and serve other objectives critical to the President. Direct the use of the Information Technology Fund by the Administrator of General Services. Consult with leaders in state governments, the private sector, and foreign governments.	information resources by the federal government. Develop and oversee the implementation of policies, principles, standards, and guidelines for IT functions and activities, in consultation with the Secretary of Commerce and the CIO Council. Promulgate, in consultation with the Secretary of Commerce, standards and guidelines for federal information systems. Review the federal information system standards setting process, in consultation with the Secretary of Commerce, and report to the President. Provide advice and assistance to the Administrator of the Office of Federal Procurement Policy regarding IT acquisition. Ensure that agencies integrate information resources plans, program plans, and budgets for acquisition and use of technology. Provide direction and oversee activities of agencies with respect to the acquisition and use of IT. Promote the use of IT by the federal government to improve the productivity, efficiency, and effectiveness of federal programs. Establish minimum criteria within 1 year of enactment to be used for independent evaluations of IT programs and management processes. Direct and oversee all actions by the Administrator of General

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		CIO Responsibility	
Function	**OMB's Current Functions[a]**	**H.R. 4670**	**H.R. 5024**
Information technology management (cont'd)	respect to the performance of investments made in IT. Direct agencies to develop capital planning processes for managing major IT investments. Direct agencies to analyze private sector alternatives before making an investment in a new information system. Direct agencies to undertake an agency mission reengineering analysis before making significant investments in IT to support these missions.		Services with regard to the provision of any information resources-related services for or on behalf of agencies, including the acquisition or management of telecommunications or other IT or services. Direct the use of the Information Technology Fund by the Administrator of General Services. Oversee the effectiveness of, and compliance with, directives issued under section 110 of the Federal Property and Administrative Services Act (which established the Information Technology Fund). Oversee the development and implementation of computer system standards and guidance issued by the Secretary of Commerce through the National Institute of Standards and Technology. Designate agencies, as appropriate, to be executive agents for governmentwide acquisitions of IT. Compare agency performance in using IT. Encourage use of performance-based management in complying with IT management requirements. Evaluate agency practices with respect to the performance of investments made in IT. Direct agencies to develop capital planning processes for managing major IT investments. Direct agencies to analyze private sector alternatives before making an investment in a new information

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		CIO Responsibility	
Function	**OMB's Current Functions**[a]	**H.R. 4670**	**H.R. 5024**
Information technology management (cont'd)			system. Direct agencies to undertake an agency mission reengineering analysis before making significant investments in IT to support these missions.
Innovation	Conduct pilot projects with selected agencies and nonfederal entities to test alternative policies and practices. Assess experiences of agencies, state and local governments, international organizations, and the private sector in managing IT.	Provide leadership in the innovative use of technology by agencies through support of experimentation, testing, and adoption of innovative concepts and technologies, particularly with regard to multi-agency initiatives.	Conduct pilot projects with selected agencies and nonfederal entities to test alternative policies and practices. Provide leadership in the innovative use of technology by agencies through support of experimentation, testing, and adoption of innovative concepts and technologies, particularly with regard to multi-agency initiatives. Assess experiences of agencies, state and local governments, international organizations, and the private sector in managing IT.
Interagency cooperation	Ensure the efficiency and effectiveness of interagency IT initiatives. Issue guidance to agencies regarding interagency and governmentwide IT investments to improve the accomplishment of common missions and for the multiagency procurement of commercial IT items.	Identify opportunities and coordinate major multiagency IT initiatives.	Ensure the efficiency and effectiveness of interagency IT initiatives. Issue guidance to agencies regarding interagency and governmentwide IT investments to improve the accomplishment of common missions and for the multiagency procurement of commercial IT items.
National security systems	Apply capital planning, investment control, and performance management requirements to national security systems to the extent practicable.	Consult with the heads of agencies that operate national security systems.	Consult with the heads of agencies that operate national security systems. Apply capital planning, investment control, and performance management requirements to national security systems to the extent practicable.
Paperwork reduction	Review agency collections of information to reduce paperwork burdens on the public.	Advise the Director of OMB on paperwork reduction.[b]	Provide advice and assistance to agencies and to the Director of OMB to promote efficient collection of information and the reduction of paperwork burdens on the public.

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		CIO Responsibility	
Function	**OMB's Current Functions**[a]	**H.R. 4670**	**H.R. 5024**
Privacy and security	Provide direction and oversee activities of agencies with respect to privacy, confidentiality, security, disclosure, and sharing of information.	Advise the Director of OMB on privacy, confidentiality, security, disclosure, and sharing of information.[b]	Provide direction and oversee activities of agencies with respect to privacy, confidentiality, security, disclosure, and sharing of information.
	Develop and oversee the implementation of policies, principles, standards, and guidelines on privacy, confidentiality, security, disclosure and sharing of agency information.		Develop and oversee the implementation of policies, principles, standards, and guidelines on privacy, confidentiality, security, disclosure and sharing of agency information.
	Oversee and coordinate compliance with the Privacy Act, the Freedom of Information Act, the Computer Security Act, and related information management laws.		Oversee and coordinate compliance with the Privacy Act, the Freedom of Information Act, the Computer Security Act, and related information management laws.
	Require federal agencies, consistent with the Computer Security Act, to identify and afford security protections commensurate with the risk and magnitude of the harm resulting from the loss, misuse, or unauthorized access to or modification of agency information.		Require federal agencies, consistent with the Computer Security Act, to identify and afford security protections commensurate with the risk and magnitude of the harm resulting from the loss, misuse, or unauthorized access to or modification of agency information collected or maintained.
	Review agency computer security plans required by the Computer Security Act.		Establish governmentwide policies for promoting risk-based management of information security as an integral component of each agency's business operations.
	Oversee agency compliance with the Privacy Act.		Direct agencies to use best security practices, develop an agencywide security plan, and apply information security requirements throughout the information system life cycle.
			Review agency computer security plans required by the Computer Security Act.
			Oversee agency compliance with the Privacy Act.

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		CIO Responsibility	
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Records management	Provide direction and oversee activities of agencies with respect to records management activities.	Advise the Director of OMB on records management. [b]	Provide direction and oversee activities of agencies with respect to records management activities.
	Provide advice and assistance to the Archivist of the United States and the Administrator of General Services to promote coordination of records management with information resources management requirements.		Provide advice and assistance to the Archivist of the United States and the Administrator of General Services to promote coordination of records management with information resources management requirements.
	Review agency compliance with requirements and regulations.		Review agency compliance with requirements and regulations.
	Oversee the application of records management policies, principles, standards, and guidelines in the planning and design of information systems.		Oversee the application of records management policies, principles, standards, and guidelines in the planning and design of information systems.
Statistical policy and coordination	Provide direction and oversee activities of agencies with respect to statistical activities.	Advise the Director of OMB on statistical policy and coordination. [b]	Provide direction and oversee activities of agencies with respect to statistical activities.
	Coordinate the activities of the federal statistical system.		Coordinate the activities of the federal statistical system.
	Ensure that agency budget proposals are consistent with systemwide priorities for maintaining and improving the quality of federal statistics.		Consult with the Director of OMB to ensure that agency budget proposals are consistent with systemwide priorities for maintaining and improving the quality of federal statistics.
	Develop and oversee governmentwide statistical policies, principles, standards, and guidelines.		Develop and oversee governmentwide statistical policies, principles, standards, and guidelines.
	Evaluate statistical program performance and agency compliance with governmentwide statistical policies, principles, standards, and guidelines.		Evaluate statistical program performance and agency compliance with governmentwide statistical policies, principles, standards, and guidelines.
	Promote the sharing of information collected for statistical purposes.		Promote the sharing of information collected for statistical purposes.
	Coordinate U.S. participation in international statistical activities.		Coordinate the U.S. participation in

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| | | CIO Responsibility | |
Function	OMB's Current Functions[a]	H.R. 4670	H.R. 5024
Statistical policy and coordination (cont'd)			international statistical activities.
	Establish an Interagency Council on Statistical Policy, headed by an appointed chief statistician.		Establish an Interagency Council on Statistical Policy, headed by an appointed chief statistician.
	Provide opportunities for training in statistical policy.		Provide opportunities for training in statistical policy.

[a]While OMB's Director is responsible for these functions, they have generally been delegated to the Office of Information and Regulatory Affairs, which reports to the Deputy Director for Management. These functions are outlined in the Privacy Act of 1974, the Computer Security Act of 1987, the Paperwork Reduction Act of 1995, the Clinger-Cohen Act of 1996, and the Government Paperwork Elimination Act of 1998.

[b]H.R. 4670 specifically authorizes the CIO to advise the Director of OMB to "ensure effective implementation of the functions and responsibilities assigned under chapter 35 of title 44, United States Code." These functions include electronic records (through the Government Paperwork Elimination Act of 1998), information dissemination, information resources management policy, information technology management, paperwork reduction, privacy and security, records management, and statistical policy and coordination.

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