



Center for Technology in Government

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## **New Models of Collaboration *A Guide for Managers***

**FirstGov:  
The Portal to the U.S. Federal Government**

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## Introduction

The United States federal government is the world's largest creator, maintainer and disseminator of information. The federal government's information technology (IT) portfolio of investments for 2003 is approximately \$52 billion; a portion of this includes the development of about 900 major projects, which account for \$18 billion of the total IT Investments for fiscal year 2003. This makes the United States the largest investor in IT in the world.<sup>1</sup> Under the Bush administration, the expansion of electronic government is one of the five government-wide initiatives highlighted as critical for improving government performance. This is a continuation of the strategic focus on information technology that began in the Clinton Administration with the creation of the National Performance Review. The implementation of FirstGov.gov, the first federal government-wide portal, was a major project endorsed, developed, and launched under the aegis of the Clinton administration.

The portal concept of electronic commerce has become a dominant theme in today's Internet environment. At its most basic, a portal is a main doorway for users to access the Web. It is similar to a homepage, becoming not only a favorite entryway to the Web, but also, a place Internet users come back to which meets a range of their information and commerce needs. Government is moving towards a quasi-portal model of business in an effort to offer a more integrated or horizontal view of government – one that minimizes the “agency” aspect of services and information and capitalizes on the “content” aspect, or the subject of the information need. The development and use of a single point of access application to government is seen as a necessary condition in the move to a more citizen-centric federal government. It is envisioned that an electronic government portal will transform the citizens' relationship with their government. Governance will also be facilitated, with portals creating communities of interest that will function around political issues and elected officials, enabling an unprecedented flow of conversation between citizen and government. FirstGov.gov was designed to enable government-to-citizen (G2C), government-to-business (G2B), and government-to-government (G2G) interactions and transactions to occur.

FirstGov.gov was launched September 22, 2000 with an initial size of 47 million U.S. federal government web pages. FirstGov.gov, the only official U.S. government Web portal, is described as a single, trusted point-of-service for U.S. citizens and businesses to gain entry to federal services and information resources. The Presidential Memo of December 17, 1999, “Electronic Government,” stimulated the development of FirstGov.gov by calling for a government-wide portal that would be accessible by type of service or information needed. The vision for this portal, FirstGov.gov, is to be a high-speed, 24 hours a day, seven days a week, user-friendly entry point to every online resource, be it information, data, or service, offered by the Federal government, and ultimately, to all levels of government in the United States. FirstGov.gov is also seen as the vehicle to substantively reduce government bureaucracy, enable a more responsive and customer-focused government, and enable a new and active citizen participation in democratic processes. It serves as an example of a public-private partnership to provide electronic government services and information to the public. Today (December, 2001) FirstGov.gov contains information and services from more than 22,000 federal websites containing more than 35 million pages of information, services and transactions. First Gov.gov

also accesses an additional 16 million pages from the Internet portals of all 50 states and the District of Columbia<sup>ii</sup>.

## **The Environment**

The development of FirstGov.gov introduced a number of changes in the way the federal government operates. First, the project had visible and formal support from the Clinton Administration. On June 24, 2000 President Bill Clinton, in the first presidential Internet address to the public, called for the development of a federal government portal, or single point of entry, that would provide easy and open access to the online services and information available to the public<sup>4</sup>. This initiative, FirstGov.gov, was seen as transformational to the conduct of government.

This attention from the Executive Office of the President was one of the critical success factors which enabled to portal to be “open for business” in such a short period of time.

The political environment was also predisposed to support a project such as FirstGov.gov. At a hearing before the House Subcommittee on Government Management, Information, and Technology (October 2, 2000) Senator Horn (R-CA) called for government to be up-to-date in its information management, be well organized for information retrieval and be accessible to the public. In his comments, the Congressman stated that “FirstGov is an important step in making Government information and services available to the public 7 days a week, 24 hours a day. FirstGov -- and electronic government, in general -- offer the potential to revolutionize the way citizens and businesses interact with their Government. The benefits of this instant communication are plentiful, but the challenges are equally profound.”<sup>iii</sup> In her testimony to the same House Subcommittee Sally Katzen, Deputy Director for Management, Office of Management and Budget, praised the early efforts already seen in the opening of the FirstGov.gov website. She made reference to the quarter of a million users that visited the site in its first four days of business. She further reinforced the idea the FirstGov.gov should be made intuitive to citizens, access to it being organized by information or service need, and not by the agency which provides the information or services.

Another business change FirstGov.gov engendered was the speed with which the project was conceived, developed, and implemented. From the December 17, 1999 Presidential Memo on “Electronic Government,” to the first presidential Internet address to the public in June 2000, to the launch of the portal on September 2000, we saw the U.S. federal government do what it had never done before – implement a major new technology project in nine months. This shortened project timeline created an aura of urgency, and with Presidential support, enabled the project team to circumvent many of the usual barriers to procurement and acquisition. And while there were many “bumps in the road” to the implementation, the project team as a whole felt satisfied with what they had achieved.

## The Project

This portal project represented an entirely new venture for the U.S. federal government. It was created to cut across agency and departmental stovepipes, and to centralize the location for retrieval of government information and services. While a number of portal-type applications were developed under the National Performance Review, e.g., [www.students.gov](http://www.students.gov), [www.seniors.gov](http://www.seniors.gov), and [www.workers.gov](http://www.workers.gov), FirstGov.gov represented a project on a much larger scale, with its scope being the entire federal government.

### Institutional Environment (Legal and Policy Framework)

Some critical and important pieces of legislation and policy which paved the way for FirstGov.gov included the Paperwork Reduction Act of 1995 (PRA) (Public Law 104-13); a lengthy and wide-ranging law, first enacted in 1980. It was revised in 1986 with some changes, and then underwent major revisions again in 1995. The PRA was enacted to reduce the paperwork burden on private citizens and businesses that interact with the government. It emphasizes the effective and efficient use of IT to achieve paperwork reduction. Hand-in-hand with the PRA is OMB Circular A-130 (Office of Management and Budget, 1985) which was created to clarify information management, information systems management, and information technology management for the federal agencies affected by the PRA. The Circular has been most recently revised in 2000 to include the implementation guidelines for the Government Paperwork Elimination Act of 1998 (P.L. 105-277, Title XVII).

The U.S. Congress signed the Government Paperwork Elimination Act (GPEA) into law October 1998. The defining features of this piece of legislation included the following:

- SEC. 1702. Authority of OMB to provide for acquisition and use of alternative information technologies by executive agencies;
- SEC. 1703. Procedures for use and acceptance of electronic signatures by executive agencies;
- SEC. 1704. Deadline for implementation by executive agencies of procedures for use and acceptance of electronic signatures;
- SEC. 1705. Electronic storage and filing of employment forms;
- SEC. 1706. Study on use of electronic signatures;
- SEC. 1707. Enforceability and legal effect of electronic records; and
- SEC. 1708. Disclosure of information<sup>iv</sup>.

In short, GPEA enables citizens to file information electronically with the federal government and receive information electronically as well. By 2003, the federal agencies must provide the alternative for electronic public access to their documents with electronic filing of documents by the public also in place. Thus, GPEA provides the framework for the acceptance of electronic records as legal, valid and enforceable. It encourages federal agencies to promote electronic recordkeeping, filing, maintenance, submission, and archiving. This opens up a wide array of possible types of electronic information interactions including the submission of bids and proposals for government contracts, application for licenses, loans and benefits, order of government records, receipt of benefits such as social security, online procurement, and citizen

commentary on legislative issues. GPEA requires that federal agencies must make available by 2003 the capability for online submission and receipt of forms, documents, and data.

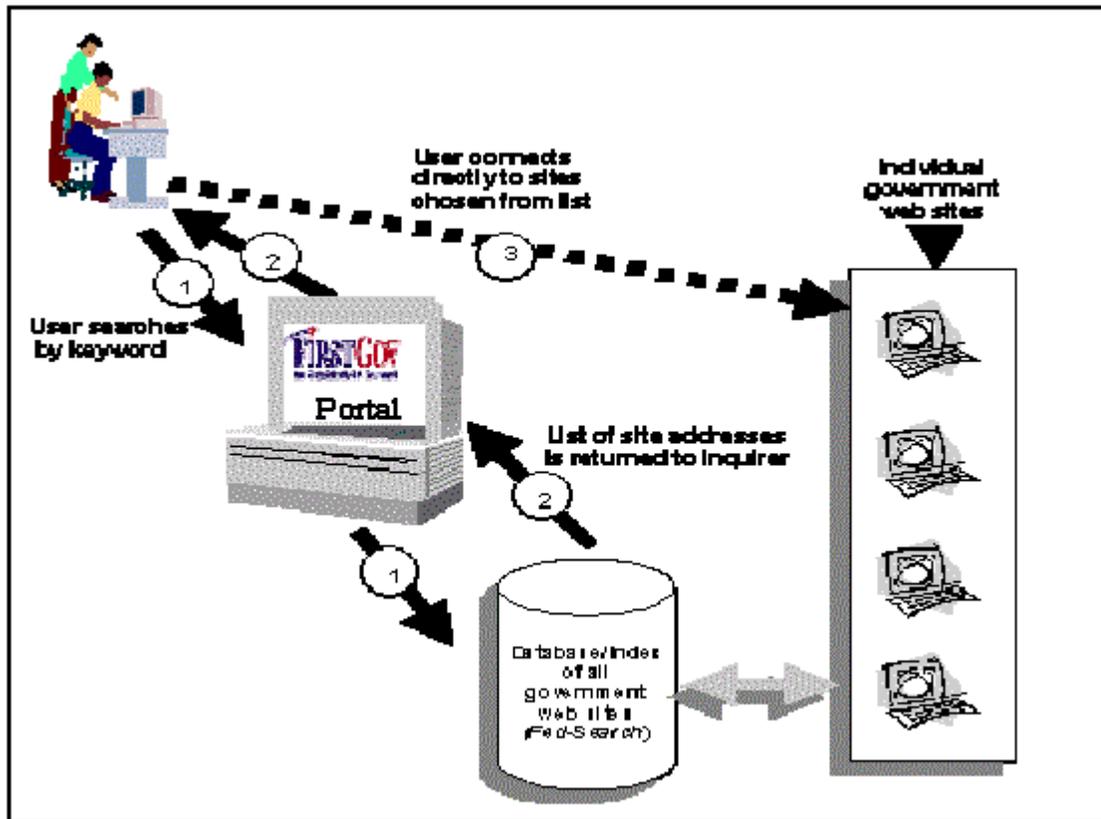
Another law that helped set the stage for electronic government and cross-agency partnerships is the Information Technology Management Reform Act of 1996 (later renamed the Clinger-Cohen Act). As introduced by Senator Cohen, the intent of the Act was to be:

A bill to facilitate, encourage, and provide for efficient and effective acquisition and use of modern information technology by executive agencies; to establish the position of Chief Information Officer of the United States in the Office of Management and Budget; to increase the responsibility and public accountability of the heads of the departments and agencies of the Federal Government for achieving substantial improvements in the delivery of services to the public and in other program activities through the use of modern information technology in support of agency missions; and for other purposes. (S.946)

Coincident with the passage of the Clinger-Cohen Act was Executive Order 13011, “Federal Information Technology” of July 16, 1996. This integrates provisions of the Clinger-Cohen Act of 1996, the Paperwork Reduction Act of 1995, and the Government Performance and Results Act of 1993. More importantly, it put the Presidential “seal of approval” on the value and importance of information and its attendant technologies to government. This Executive Order is but one of many information-focused policies created during the Clinton Administration. The creation of the National Performance Review on March 3, 1993 (later renamed the National Partnership for Reinventing Government) represented the Administration’s visible intent to use information technology to create a more responsive and fast-acting government.<sup>11</sup>

To provide ongoing direction to the FirstGov.gov effort, the President’s Management Council (PMC) established a FirstGov.gov Board of Directors, which consists of eight members from the PMC and three members of the Federal CIO Council. The board is responsible for coordinating FirstGov.gov issues across the executive, legislative, and judicial branches. Daily operations are managed by the General Services Administration (GSA), which has staffed a FirstGov.gov project team to lead the effort. This team, in turn, manages a \$4-million, 2-year contract to operate and maintain the Firstgov.gov web site. The contract does not cover services such as redesigning the web site or changing its hosted location. It also does not cover the electronic search function that (1) collects and indexes information from all government web sites, (2) stores that information in a single large database, and (3) performs searches on the database to fulfill user requests. That search function is being provided to FirstGov.gov free of charge for 3 years by the Federal Search Foundation (Fed-Search), through a memorandum of understanding with GSA on behalf of the PMC and the FirstGov.gov Board. Dr. Eric Brewer, co-founder and chief scientist for Inktomi Corporation, established Fed-Search in June, 2000. Fed-Search has a contractual relationship with Inktomi for the technology and technical support to provide its free service to FirstGov.gov.

## Technological Environment



**Figure 1: Typical *FirstGov.gov* Search Process<sup>v</sup>**

The development of a government-wide portal on the Internet has been enabled by the dynamic convergence of a range of information technologies. The Internet itself is both a cause and an effect here. As use of the Internet grows, more use will occur—a “network effect.”<sup>vi</sup> As more and more people get online, the value of being online increases to each individual user. More recent developments in wireless networks are a major contributor to the diffusion of the Internet. Intranets and extranets take advantage of Internet technology to create additional communication and commerce tools within and between organizations. Digitalization is leading to new products and information redesign, while the creation of network appliances will connect the more prosaic household accoutrements such as the television, dishwasher, or light switch to the Internet and add information or service value to these appliances. Technology can enable inherently governmental processes such as taxation or voting to be embedded in the tools and rituals of daily life.

The search engine technology for FirstGov.gov was donated by Inktomi. Inktomi was founded in 1996 by Dr. Eric Brewer, an Internet pioneer who created a seminal caching and search technology that today, powers large public Web sites, such as AOL. Inktomi, headquartered in the United States and Europe, is publicly traded on Nasdaq. While the company was initially known for the powerful search engine it markets, Inktomi has diversified and today offers network caching services, content distribution venues, media publishing and broadcasting, and

enterprise and Web search technologies. Its search engine, a “back-end” product for portals and user interfaces, enables the end-user to conduct a wide range of searches, including those from a high-volume Web-wide approach, to specially customized site/sector-specific queries. The technology used is a turnkey type, and it enables end-users to search for media and document files. Inktomi customers have two options for using the search technology: the client can run the search engine alone, using Inktomi software, or the client can have Inktomi set up, host and administer the site.

The search engine makes use of natural language processing technology to enable a more conversation-like search for the end-users. They can create searches based on words or word-phrases they wish to find. The advanced features of the search engine also support search parameters such as words located in titles, truncation of words, content limits, and page depth searches. The Inktomi search engine also offers the capability to search using Boolean operators and metawords—features which improve the quality of the search.<sup>viii</sup>

The FirstGov.gov portal, when initially launched, contain more than 47 million pages of government information, indexed by subject, not by agency. Using the Inktomi search engine, every word of every document in the database is searched in less than a quarter of a second. The portal has a topical index, links to other levels and branches of government, and the ability to conduct online transactions. Today (December, 2001) FirstGov.gov contains information and services from more than 22,000 federal websites containing more than 35 million pages of information, services, and transactions. First Gov.gov also accesses an additional 16 million pages from the Internet portals of all 50 states and the District of Columbia

## **The Partnership**

FirstGov is a unique example of a public-private partnership among the U.S. General Services Administration, the Federal Chief Information Officers Council, Vice-President Gore’s National Partnership for Reinventing Government, the Government Information Technology Services Board, private sector information industry companies, and the Fed-Search Foundation created by Dr. Eric Brewer, Chief Scientist at Inktomi. It was Dr. Brewer’s donation of the Inktomi search engine, for a three year period, which was vital in getting FirstGov.gov up and running in a very short timeframe. It is interesting to note here that this same donation was the cause of considerable angst in the software industry, which feared that when the three year donation period was over, Inktomi would have an unfair competitive advantage over other potential vendors vying for the contract. FirstGov.gov must pay for search engine services beginning August, 2003.

## **Objectives and Motives of Partners**

While President Clinton provided the impetus for FirstGov.gov, he was not a partner in the working sense of the word. His policy endorsement and championship of this project enabled the partnerships to occur.

Dr. Brewer, the impetus behind the search engine donation by Inktomi, said that his involvement began when he attended World Economic Forum in January of 2000. He was able to meet President Clinton at a reception held afterwards where he offered his search engine as a gift. He also told Clinton that project could be implemented within one year. Brewer, a recipient of graduate school funding for his early research in parallel computing, from the Department of Defense, saw his contribution as a way to return the favor. He considered FirstGov.gov a worthy and worthwhile project.

The U.S. General Services Administration was a key partner to the development process. They provided the wherewithal, the organizational resources, and a good number of the people to work on FirstGov.gov. The team was created to be a collateral model of the organization, one that could use the resources of the larger agency, but operate outside the rules when needed. Thus, team expertise and enthusiasm was not hampered by the red tape of bureaucracy. The then CIO at the GSA was credited with being a driving force behind the project. He was referred to as an advocate, a proselytizer, and a very visible champion for FirstGov.gov throughout the development and implementation.

The Federal Chief Information Officers Council was also a partner to this venture. They were a source of knowledge and expertise on government agencies and information technology. They also served to enable the cross-agency approach to information presentation and dissemination – a vital characteristic of the FirstGov.gov portal. Finally, they also assisted in the first year funding of the project, by literally passing the hat among 22 federal agencies to keep the project alive.

Ultimately, FirstGov.gov saw its partnerships expanding to all branches of the federal government, as well as to state and local governments. Involvement with the National Association of State CIO's was critical to getting the buy-in of the states. Other partners included the National Partnership for Reinventing Government and the Government Information Technology Services Board

Today, the Office of FirstGov sits within the General Services Administration's Office of Government-wide Policy.

### **Characteristics of the Partners**

Everyone involved in the development and implementation of FirstGov.gov expressed as sense of dedication to and belief in what they were doing. The sense of importance, high level commitment, and urgency was transmitted through all the partners, who pulled together to make the project a success. This was not a typical government project, mired in procurement and acquisition regulations, and constrained by the federal budget. It was much more like that of a start-up "dot.com" fueled by the energy and engagement of its members, and their belief in the project.

It was also seen as a necessary public service. The strong information policies of the federal government focused on information creation, dissemination, and records management and

archiving. The creation of a government-wide portal was but one next step in the move to an electronic government.

## **The Collaboration Process**

As noted above, this project was created, developed and implemented in about nine months. While the climate was right for such a venture, pressure was very intense due to the compressed time line. The collaborators “fell in place” as the project commenced. Brewer’s donation of the search engine, while controversial in the software industry, removed one of the main barriers to project development. The project team needed to neither find the funding for such a high ticket tool, nor did they need to invent their own. The General Services Administration had the staff and the organization to contribute to the project which substantively enhanced the resources. The CIO Council supported the development and were successful, in varying degrees to getting the federal agencies’ web sites “cleaned up” and ready to be online by September 22, 2000.

One of the partners noted an incident that occurred right before the scheduled public launch of the portal. Content and software problems were discovered which could mean that the launch date would have to be postponed—a situation that no one in the project wanted to occur. Over a weekend period, people at the GSA and other vendors involved in the development were able to find, contact, and transport the relevant personnel to fix the problem; a complex and labor intensive incident which ended well. It was just not an option to any of the partners that FirstGov.gov would not launch on time.

## **Critical Success Factors of Collaboration Project**

Leadership was from the very top, President Clinton. He, and Vice-President Gore were both champions for using information technology to enable better, smarter, faster government services and information dissemination. The management of the project, in the hands of the U.S. General Services Administration, was a facilitating factor in the project’s perceived success. The GSA team members were tirelessly dedicated to the project because “they knew it was right.” And many saw the small size of the team as a success factor. The size enabled it to be fast and flexible. All the people interviewed credited the success to:

- The President’s Memo of December 17, 1999 on “Electronic Government;
- The passage of the Government Paperwork Elimination Act in 1998;
- The donation of the Inktomi search engine for a three year period;
- The small size of the project team; and
- The compressed time frame—90 days—in which to develop and implement FirstGov.gov.

These factors created the top level support, the legislative framework, and the sense of commitment and urgency to have a successful launch date. A general theme heard echoed among the respondents was that FirstGov.gov was successful because of personality, commitment, and a good team.

## **Governance model**

One of the main sources of contention with the FirstGov.gov project was the nature of the involvement of the software industry. In essence, with the Inktomi donation, the other vendors were initially locked out of competing for this major government procurement. According to members of the software industry the project was naïve and ill-conceived. They felt it was not a successful implementation because it was rushed and not well thought out. They also asserted that by not including the software industry as a whole in this venture, critical intelligence and expertise was lost, leading to a flawed product.

A watchdog organization also felt that the speed was a drawback to the project. It was done without forethought to thinking through the policy implications and needs, according to the OMB Watch. A caution was expressed that policy needs to be in place to insure that information remains in the public domain and does not intentionally or inadvertently become the property of a private sector vendor. They also disagreed with the procurement method, i.e., the acceptance of the donated search engine. This forced federal agencies to use one portal model, regardless of whether or not it was the right model.

The above two instances point to concerns groups' had over the administration and management of the project and the policy environment. In this respect, governance was seen as problematic.

With the current appointment of a Director of Electronic Government in the Executive Office of Management and Budget, FirstGov.gov will have a more structured and accountable governance in the future. While this Director doesn't run the FirstGov.gov program, he is integrally involved in its activities and future developments. The results of the Quicksilver Task Force also put FirstGov.gov in a more formal government-wide context. The attention and oversight of the Federal CIO Council also give it more rigor and made it open to Council involvement and planning.

## **Project Outcomes**

Today, FirstGov.gov provides informational and transactional government-to-citizen, government-to-business and government-to-government electronic services. It covers all three branches of government; executive, judicial and legislative. Its vision statement, "Our work transcends the traditional boundaries of government and our vision is global –connecting the world to all U.S. Government information and services" is being carried on with the addition of state and local government web pages along with the addition of some pages from foreign governments to its vast directory of government information."<sup>viii</sup>

FirstGov.gov offers a powerful search engine that searches every word of every U.S. government document in a quarter of a second or less. It also features a topical index, online transactions, links to state and local government, options to contact government directly, and other tools so the user does not have to know the name of the government agency to get the information they need. This is a major accomplishment. The portal further creates and maintains a number of content-specific mini-portals geared to special audience needs, such as students.gov, seniors.gov,

workers.gov, science.gov, and consumers.gov. These specialty portals are consistent with the topic or needs-oriented approach to government that FirstGov.gov represents.

The future for this government wide portal looks good at this time. The website has won numerous awards and has strong visibility and usage. It was included in the President's 2002 budget and is poised to play a critical role in the implementation of the President's Management Agenda (2001) and the electronic government initiatives funded in the 2003 Budget of the United States. The 2003 Budget recognizes that the U.S. government will mix its use of Internet and physical assets to become a "click and mortar" enterprise. The agencies that serve citizens, businesses, internal federal government functions, and inter-governmental needs will, thus, become more accessible, effective and efficient. In adopting a "click and mortar" model, the federal government will use the best practices of industry. The Bush administration's goal is that services and information will rarely be more than 3 clicks away from citizens and business.

With that objective in mind, the Bush Administration, through OMB, established a Task Force in August 2001 to develop a road-map for the implementation of E-Government. The E-Gov Task Force, otherwise known as Quicksilver, had as its objectives to: Recommend highest-return-cross-agency projects that could be rapidly developed; Identify the key barriers to a citizen-centered e-government and determine the actions needed to overcome these barriers, and; Develop an IT architecture that would provide for the integration of government services and information across platforms and across federal agencies. Quicksilver was composed of 70 volunteer participants from 30 federal agencies. The initiative was funded by GSA for a total of \$100,000.

Their resulting recommendations were directed to what they have defined as four citizen-centered groups, each providing opportunities to transform delivery of services. These four groups include individuals, the business community, intergovernmental functionally related organizations, and the federal government itself, to streamline its processes and facilitate internal efficiency and effectiveness. They recommended twenty-four cross-cutting projects which are being funded in the 2003 budget. FirstGov.gov is expected to play a prominent role in developing and hosting many of these new electronic initiatives.<sup>ix</sup> In specific, one of the largest and most prominent of the Quicksilver initiatives is expected to be put under the FirstGov.gov umbrella—USA Service, an application which will link together all of the government-to-citizen and government-to-business applications included in the recommended 24 cross-cutting e-gov projects. FirstGov.gov will, thus become transactional as well as informational, bringing the U.S. federal government one step closer to its customers.

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<sup>i</sup> Executive Office of the President, Budget of the United States Government, Fiscal Year 2003. Analytical Perspectives. Superintendent of Documents, U.S. Government Printing Office. ISBN 0-16-051029-5

<sup>ii</sup> FirstGov.gov. Accessed December 1, 2001 on the World Wide Web at [www.firstgov.gov](http://www.firstgov.gov)

<sup>4</sup> Remarks by the President in the First Internet Webcast; June 24, 2000. <http://www.whitehouse.gov/WH/new/html/internet2000-02-24-text.html> (accessed October 10, 2000).

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<sup>iii</sup> Congressman Stephen Horn,. Opening statement. *FirstGov: Is it a good idea?* October 2, 2000. Accessed September 12, 2001 on the World Wide Web at <http://www.house.gov/reform/gmit/hearings/2000hearings/001002.FirstGov/001002sh.htm>

<sup>iv</sup> Government Paperwork Elimination Act; October 15, 1998. *Congressional Record*—Senate; S12627.

<sup>v</sup> From Testimony of David McClure, Director Information Technology Management, U.S. General Accounting Office. To the House Subcommittee on Government Management, Information, and Technology. October 2, 2000.

<sup>vi</sup> Shapiro, C; and Varian, H. *Information Rules: A Strategic Guide to the Network Economy*; Harvard Business School Press: Boston, 1998; 184.

<sup>vii</sup> Mendelsohn, James. The Inktomi Search Engine and Its Variations. Retrieved from the World Wide Web January, 2002 at <http://dcb.sun.com/practices/profiles/inktomi.jsp>

<sup>viii</sup> From the FirstGov.gov website at [www.firstgov.gov](http://www.firstgov.gov)

<sup>ix</sup> The Report of the E Gov Task Force is expected to be available in 2002 at the Executive Office of Management and Budget's website. [www.whitehouse.gov/OMB](http://www.whitehouse.gov/OMB)