

CHAPTER THREE

THE UNITED STATES OF AMERICA: Electronic Government Within the World's Largest Internet Economy

“Our basic theory has been that we ought to have a government for the Information Age that is smaller, that lives within its means, but that actually is capable of doing more of what needs to be done. We believe what needs to be done is that we should focus mostly on giving people the tools they need to solve their own problems”.

– **President Clinton,**

remarks to Global Forum on Reinventing Government,
Jan 15, 1999

Background

Of all knowledge-based economies, the United States, in most respects, should be best able to take advantage of *on-line government services delivery and electronic governance*. OECD data indicates that, in addition to being the world's most technologically advanced country with the strongest economy, the US dwarfs other G7 countries in both personal computer use and Internet use.²¹

At 149 users per 1,000 inhabitants (1997 data), the US has more than twice the Internet penetration of the UK, Japan and Germany. The US also has more than eight times the penetration of France and Italy (France is now planning the evolution of its popular but proprietary Minitel system, used by more than 6.4 million citizens, to an open Internet standard). Only Canada comes close to the US in Internet penetration, achieving a level that is 99.5% that of the US (other sources now put Canada ahead of the US)²²

Within government, the Clinton-Gore administration has made re-inventing government and electronic services delivery initiatives a major federal policy goal. Vice President Al Gore's *National Partnership for Reinventing Government* program has been a key component of this initiative.

Originally known as the National Performance Review (NPR), the initiative was started early in President Clinton's first term (March 1993) with an initial task of creating "reinvention laboratories" within agencies to pilot innovations in service delivery and reduce red tape. The initial focus was clearly on cost-cutting, leading to a federal workforce reduction of some 250,000 positions, and a 50% reduction in internal government regulations. By 1995, federal agencies had reported a savings of approximately \$58 billion.²³

In the President's second term, NPR efforts were more narrowly concentrated on high-impact/high visibility agencies such as the Internal Revenue Service, the Weather Service, the Customs Service, the Park Service, the Patent and Trademark Office, the Occupational Safety and Health Administration, and the Food and Drug Administration. Still the focus remained on cost-cutting, streamlining and improved customer service standards.

In late 1998, NPR shifted its *focus to the improvement of services delivery by integrating government services delivery across functional lines*. Some specific goals of this new "seamless service delivery" approach include:

- ❑ **Reducing food-borne illnesses** by 25% through a Food Safety Council representing eight other agencies with jurisdiction over the safety of Americans' food supply;
- ❑ **Improving access to clean water** for Americans with an interagency committee representing a number of agencies responsible for water quality;
- ❑ **Reducing crime** by an additional 12 percent with new technologies and through federal agencies working collaboratively with state and local police;
- ❑ **Partnering with state and local authorities** on a new national training, education, and employment system with integrated service delivery; and
- ❑ **Expanding a "Hassle Free Communities" pilot project** currently in three communities (Dallas-Fort Worth, Kansas City, and Seattle) to 50 cities by January 2001, benefiting more than 120 million Americans. Hassle free communities use federal,

state and local partnerships to deliver one-stop shopping for public services – when, where, and how citizens want them.

The government is also striving to make all government services more accessible to the public through on-line delivery, with increased use of telephone technology, neighborhood kiosk and the Internet. By 2001, the government expects 40 million Americans to be using on-line transactional tools (Nielsen/CommerceNet estimates there now are more than 70 million Americans on the Internet²⁴).

The initial thrust of NPR also required an on-line infrastructure strategy and investment. In September 1993, the **Information Infrastructure Task Force (IITF)** was formed by the Clinton Administration to **implement policies and initiatives necessary for the deployment of the National Information Infrastructure (NII)**. The nine policy objectives for the NII included several policies related to delivery of government services. These were:

- Extending the "Universal Service" concept to ensure that information resources are available to all;
- Promoting technological innovation and new applications;
- Promoting seamless, interactive, user-driven operation;
- Ensuring information security and network reliability;
- Co-ordinating with other levels of government and with other nations; and
- Providing access to government information and improving government procurement.

Concerning the last policy goal of improving access to government information, the NII Action Plan specified that:

The Administration will seek to ensure that Federal agencies, in concert with state and local governments, use the NII to expand the information available to the public, ensuring that the immense reservoir of government information is available to the public easily and equitably. Additionally, Federal procurement policies for telecommunications and information services and equipment will be designed to promote important technical developments for the NII and to provide attractive incentives for the private sector to contribute to NII development.²⁵

NII initiatives began just as the Internet was beginning to emerge as a widely accessible information tool (Mosaic, the first graphical web

browser was introduced in 1993 and the first version of Netscape Navigator released in 1994). Since 1993, global Internet use has increased by rates varying from 25% in 1994 to 96% in 1996 and 45% in 1999²⁶ is now doubling every year.

Specific initiatives recognised the potential of future Internet growth, but were linked to the status of the Internet as it existed in 1993 and the immediate challenges of moving vast storehouses of information into an on-line environment. Specific initiatives in this area included the following:

- Improve the Accessibility of Government Information;
- Upgrade the Infrastructure for the Delivery of Government Information;
- Enhance Citizen Access to Government Information; and
- Strengthen Inter-agency Co-ordination through the use of Electronic Mail.

Improve the Accessibility of Government Information

Inter-agency efforts were started to *ensure that the right (ie. accurate) information is stored and available*. To help the public find information, a virtual card catalogue was being developed to indicate the availability of government information in whatever form it exists.

Upgrade the Infrastructure for the Delivery of Government Information

The first initiatives were to *enact legislation to improve electronic dissemination of government documents* by the Government Printing Office, followed by other steps to encourage federal agencies to convert their public information into electronic form and disseminate it over the Internet. "FedWorld," an electronic bulletin board established by the Department of Commerce's National Technical Information Service (NTIS), which links the public with more than 100 federal bulletin boards and information centres was also updated to enhance public distribution of scientific, technical, and business-related information.

Enhance Citizen Access to Government Information

In June 1993, the Federal Office of Management and Budget (OMB) prescribed *new polices designed to reduce the costs to the public of obtaining government information*. In providing information, agencies should

seek to recoup only the costs associated with the dissemination of information, not its creation or collection. Other inter-agency efforts were also started to afford greater public access to government information, including one project which seeks to turn thousands of Federal agency field offices into **Interactive Citizen Participation Centres**, at which citizens can communicate with the public affairs departments of all Federal agencies. Another later example of these efforts was OMB's 1996 launch of the **Economic Statistics and Social Statistics Briefing Rooms** which, for the first time, presented current releases of key economic and social indicators by themes, not by agencies, overcoming previous difficulties that even frequent data users, such as economic forecasters or social science researchers, had in locating and accessing statistical information.

Strengthen Inter-agency Co-ordination through the Use of Electronic Mail

An inter-agency co-ordinating body was established *to incorporate electronic mail into the daily work environment of federal workers.*

Role of Government Information Technology Services (GITS)

In November 1993, the **Government Information Technology Services (GITS)** Working Group was also established to implement the information technology aspects of electronic government. The GITS mandate was to *lead the development of a national IT vision; guide the government wide efforts to provide an effective, responsive, and efficient electronic government for citizens to use; and develop and implement information technologies that empower a customer-driven government, rather than restrain it.*²⁷

A major GITS focus was improvement of how the US government acquired IT systems. A 1995 examination of large scale IT acquisitions by Senator William S. Cohen, released in a report entitled "Computer Chaos," was highly critical of the federal government's IT acquisition management process. GITS efforts contributed to the new Information Technology Management Reform Act of 1996 which replaced outdated 1960s legislation, providing more agency flexibility in acquiring IT systems and requiring all federal agencies to appoint Chief Information Officers (CIOs) who will be responsible for oversight, co-ordination, and management of IT programs. The new law also authorised establishment of an interagency group, the Government Information Technology Services Board, to identify and promote the development of innovative

technologies, standards, and practices across agencies and governments and with the private sector.

Results from GITS Initiatives

The following examples of US government on-line initiatives demonstrate the focus of the government to link information functionally across agency lines. Where previously information was "stove-piped" and inaccessible except through exhaustive individual web-sites searches, government data is now easily obtainable. This focus on access seems to be the dominant characteristic of current federal government efforts in electronic government.

(a) Electronic Benefit Transfer (EBT)

A GITS EBT Task Force worked with over 400 state and federal government field officials to discuss models for electronic benefits transfer systems. This led partnerships with the Southern Alliance of States (SAS) to develop, implement and operate a SAS EBT Prototype System as a part of the nationwide Benefit Security Card system. Other regional coalitions have since been formed to implement similar capabilities in all 50 states.

(b) Smart Cards

Smart card technology is now being used in several states for public assistance payments. Public assistance recipients are given an Electronic Benefits System (EBS) card to withdraw their benefits and to use at grocery stores. The card replaces traditional paper checks and food stamp coupons, providing the user with an expanded set of secure benefits management options. GITS also examined issues regarding the development and implementation of an "electronic money" capability for the NII for other types of purposes.

(c) Web Interactive Network of Government Services (WINGS)

The **Web Interactive Network of Government Services (WINGS)** program, developed by the United States Post Office (USPS) began with much fanfare in June 1995. The goal was seamless services delivery on a World Wide Web site (<http://www.wings.usps.gov>) – now no longer accessible. The idea was to give people access to government services when they need them - such as when they are looking for a new job, when

they want to get a driver's license and when they are ready to apply for retirement benefits. The access would be through personal computers in homes and offices, and also through a network of public computer terminals and information kiosk in libraries, shopping malls, and post offices. WINGS was intended to allow citizens to transact business with local, state, and federal agencies via the Internet and provide a "one-stop-shop" for government services. Through one window, the citizen could submit a postal address change to federal, state, and local agencies; change vehicle registration information; obtain information about local schools; register to vote; find out about trash pick-up schedules, police and fire services, and local tax requirements; and potentially even get a list of moving companies.

WINGS seems to have disappeared without a trace. A search of the USPS web-site brings no mention of how the concept was disbanded. However, USPS has linked up with MoversNet™ – a commercial service offered by Targeted Marketing Solutions, Inc. (TMSI). According to TMSI, this cooperative effort between the private sector and the Postal Service reduces postal operating costs since advertising pays for the creation and enhancement of the MoversNet site and pays for services such as change of address forms, the costs of which were previously covered from Postal Service revenues.

(d) Kiosk Programs

Federal and state governments are developing approaches to provide information and services through customer-activated kiosk, which are modelled after automated teller machines. The Info/California kiosk has generated major benefits for the state, dramatically lowering the costs of state information while improving customer service. The cost of motor vehicle address change costs went from \$5 in person, to \$2 by mail, to \$1 by kiosk. In Iowa, the cost of issuing a birth certificate went from \$6 manually to \$1 by kiosk. Work is now underway with the American Library Association to use member libraries as pilot locations for kiosk for inter-governmental services.

(e) FedWorld

FedWorld provides access to multiple sources of federal government information, at no charge to the user, in a technical environment that supports the broadest possible range of users without regard to the technology platform. It is the government's electronic marketplace for delivering

information through the widest range of access methods possible.

FedWorld now disseminates information for all the Cabinet agencies and a host of other federal agencies. In addition to its normal services, FedWorld activated a Web server (<http://www.fedworld.gov>) in June 1994 that provides a government home page, including hypertext links to all known federal Web services, organised by subject, with gateways to more than 400 other government databases.

Electronic services and information accessible through FedWorld include: a Nuclear Regulatory Commission (NRC) system that enables the public to participate directly in an interactive rulemaking process; the "World News Connection," which provides quick and easy access to time sensitive news gathered by the federal government from thousands of non-US media sources; the "Federal Training Mall," which provides a central source for personnel information, training information and products, and training development and delivery services;

- Safety data from the Federal Aviation Administration (FAA);
- Cancer research results from the National Cancer Institute;
- Wage determination information from the Department of Labor;
- Clean Air Act information from the Environmental Protection Agency;
- Vacancy announcements from the Department of Commerce; and IRS tax forms and publications.

IRS tax forms and publications are apparently the most sought after information on this site, saving citizens countless hours otherwise spent locating the needed forms and instruction. The downloading of these forms, often by citizens using their home computers, has broken records for the numbers of transactions using FedWorld electronic services.

(f) US Business Advisor

Another innovative Web site providing one-stop shopping is the US Business Advisor (USBA), which provides electronic access to government information that affects business operations. This site (<http://www.business.gov>) contains detailed information of interest to business including information on business development, financial assistance, taxes, laws and regulations, international trade, workplace issues, and other topics with direct links to other agencies.

(g) US General Store

The concept of the USBA is being expanded to a U.S. General Store concept intended to provide one-stop government services to business in a retail environment. A pilot site (<http://www.hcad.org/usgs/genstore.htm>) has been established in Houston to assist retail businesses with contracting, certification and grant research; Internal Revenue Service for all types of tax matters; counselling and small business financial planning; and other issues. The city of Houston is home to over 100 federal agencies who participate in providing their services through the General Store concept.

(h) White House Home Page

The White House Home Page (<http://www.whitehouse.gov/wh/welcome.html>), which opened in October 1994, is a highly visible location to access federal government information, using a powerful search engine and a link to the Government Information Locator Service (GILS), which assists users in identifying information that is not on the Internet. These pages enable citizens to locate functional information across agency boundaries, without the limitations of bureaucratic structures. Users can access many presidential documents and all Presidential Executive Orders. Improved access to current information is also available (for example, users can access economic indicators in near real time, which is more useful than the official monthly release).

(i) Federal Information Centre (800 service)

The Federal Information Centre (FIC) program provides answers to questions about the federal government to those without Internet access. Its service covers all 50 states via a single, toll-free number (1-800-688-9889).

(j) Law Enforcement/Public Safety

Through the Federal Law Enforcement Wireless Users Group (FLEWUG), the federal government is establishing a national law enforcement/public safety network, using a wireless infrastructure in coordination with local and state advisory boards. This initiative will eliminate redundant, costly networks; make better use of scarce frequency spectrum resources; and improve communications among law enforcement and public safety officials, particularly in times of natural disaster or

emergency response. Estimated savings are 25 percent of the current operational costs, which range from \$30-40 billion.

(k) Simplified Tax and Wage Reporting System

To promote integration of federal, state, and local government tax filing requirements, a simplified Tax and Wage Reporting System (STAWRS) project has been started, which is intended to reduce the total annual tax reporting burden on employers from an estimated \$15B a year to \$1B. The primary project focus is to develop a single point of filing capability, allowing businesses to fulfil all tax filing responsibilities by sending data in a single transmission. All US states are now participating in STAWRS.

(l) National Environmental Data Index

A National Environmental Data Index (NEDI) (<http://www.nedi.gov>) has been established to link users to various agency databases, providing a high level view of available data, and shows users what information exists. More than 10 major government departments and agencies have furnished their environmental data holdings to this web-site.

(m) International Trade Data System

The Customs Service is the lead agency for a project, in which 56 different US agencies are participating to streamline and standardise new processes incorporating leading edge technologies, such as the use of electronic data interchange and intelligent transportation systems, to speed the flow of trade.

(n) Government wide E-Mail

The federal government has put in place policies and implemented plans to replace vertical (stovepipe) e-mail structures with an "electronic spider web" structure in which affinity groups can be linked and virtual government can evolve.

(o) Weather Service

Everyone cares about the weather, especially in the U.S. where an over-abundance of violent weather activity can have tremendous economic, environmental and public safety impacts. The National Oceanic and Atmospheric Administration (NOAA) oversees the National Weather

Service as well as the National Environmental Satellite, Data and Information Service and other agencies responsible for oceanic and atmospheric research and coastal fisheries. The Weather Service alone employs 4,800 people with an operating budget of approximately \$680 million. Each year the Weather Service issues more than 734,000 weather forecasts and 850,000 river and flood forecasts, along with between 45,000 and 50,000 potentially life-saving severe weather warnings.

In 1995 NOAA released a strategic plan for 2005 that includes a complete modernisation of weather data collection, analysis and dissemination technologies (currently a massive but archaic system). The advanced Weather Dissemination System will provide timely, accurate weather information through a community file server designed for use by public officials. High-resolution user-friendly graphical displays will allow local government and state agency officials to make informed decisions on the protection of life, property and natural resources. NOAA advanced weather information will be integrated with geographical data from local sources and emergency management warning plans. As part of this modernisation, in January 2000 NOAA announced procurement of a new supercomputer that is five times faster, and eventually will be 28 times faster, than its predecessor, allowing a 10% improvement in predicting temperatures, humidity and pinpointing when, where and how much rainfall will occur. This new technology will enhance the operations of an organisation that already provides on-line access to the latest weather information, including hurricane and tornado activity on a constantly updated basis.

A visit to the NOAA site reveals that it is already a highly sophisticated source of on-line information for the public about weather and other climatic conditions. Given the importance of accurate weather information to the public, a quick tour of the Meteorological Service of Canada site and the U.K. "Met. Office on the Internet!" reveal comparable information.

(p) Access America

In early 1999, the government launched an "Access America" series of sites, including the main site (www.accessamerica.gov), a site specifically for students (www.students.gov) and a site for seniors (www.seniors.gov). This program initially piloted the integrated delivery of a suite of services in 5-10 colleges, to be expanded in the future. Access America for Students provides one-stop access to government information for spe-

cific needs, including recreation (www.recreation.gov), consumers (www.consumer.gov), businesses (www.business.gov); and international trade (itds.xservices.com). The site helps students transacting business with government electronically such as filing taxes (www.irs.ustreas.gov), applying for student loans (www.ed.gov/DirectLoan/), and changing residential addresses (www.usps.gov).²⁸