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SUBCOMMITTEE ON FEDERAL FINANCIAL MANAGEMENT, GOVERNMENT INFORMATION, FEDERAL SERVICES, AND INTERNATIONAL SECURITY

# SENATE COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS

#### April 28, 2009

Good afternoon Mr. Chairmen and Members of the Committee. I am pleased to be invited back to share my views on "Government 2.0: Advancing America into the 21st Century and a Digital Future." My remarks today will focus on the challenges facing the federal government and recommendations to assist agencies to meet the expectations of society, and especially today's generation, which has grown up in a networked, collaborative world. Simply put, Mr. Chairman, the text-message generation is not going to accept a carbon-paper government.

There are two issues raised in your invitation letter; the cost-effective use of Information Technology (IT), and improving interaction with citizens, transparency, and green IT. I would like to address the issues in reverse order, starting with the use of technology to enhance government transparency and citizen participation.

#### **Innovation and Transparency**

In October 2008, the Office of Management and Budget (OMB) and the Chief Information Officers (CIOs) Council partnered with the National Academy for Public Administration (NAPA) to hold the National Dialogue on Health IT and Privacy. The National Dialogue piloted an interactive, web-based discussion platform which allowed the public to submit ideas, refine them through discussion, and vote on the submissions. All stakeholders could promote and prioritize innovative ideas, voice concerns, and propose guiding principals. Participants illustrated these with personal stories concerning health care information privacy.

The February 2009 NAPA report on the success of the collaboration process used for the Health IT Dialogue (http://www.scribd.com/doc/12345523/A-National-Dialogue-on-Health-IT-and-Privacy-Final-Panel-Report) recommends the Administration "(further explore) methods of public engagement, such as the National Dialogue, that give

participants the opportunity to share their ideas; provide clear choices regarding public policy options; focus on building durable consensus on national issues; and informed by the application of independent, neutral expertise to the ideas, concerns and priorities that emanate from such engagements."

I commend the Administration for their announcement of again partnering with NAPA. Starting yesterday, April 27, the Recovery Accountability and Transparency Board and OMB are hosting a dialogue with the American people to address the key question: "What ideas, tools, and approaches can make Recovery.gov a place where all citizens can transparently monitor the expenditure and use of recovery funds?" A link to this National Dialog can be found on the Recovery Accountability and Transparency Board web site at http://www.Recovery.gov. This approach directly involves all constituencies in the process, allowing them to recommend, discuss, and vote on the best ideas.

#### Government information should be searchable and discoverable

Making government information searchable and discoverable by the public brings more transparency and thereby trust in our government. And it allows the public to lend innovation to the analysis of such data, combining data from multiple sources into "mashups;" a term so new as to not be in the dictionary, but established enough in our internet-driven world to be understood by everyone, especially the "millennials" which are a segment of the population larger than the "boomers."

However, making information searchable and discoverable can also improve the effectiveness of government agencies in their every day missions at little cost to implement. For example, the Maritime Domain Awareness Initiative; a collaboration between the Departments of Defense, Transportation, and Homeland Security, established a standard vocabulary for exchanging data between computers at local agencies and federal maritime organizations to help battle smuggling, terrorism, and other criminal activities. This is the sort of information sharing envisioned in Public Law No.110-53; "Implementing Recommendations of the 9/11 Commission Act of 2007."

I would propose that more initiatives such as these need to be sponsored to assist agencies with their missions and those of the state and local governments. Some of these innovations will happen organically as today's young people, who are growing-up in a collaborative world, move into the Federal workforce. But there will be cases where Congress will have an opportunity to break-down some of the parochialism of the Federal government through authorization, or appropriation, or oversight.

In other cases, the law will need to be changed to accommodate collaboration between the people and the people's government. For example, the Paperwork Reduction Act of 1980, which was intended to reduce the burden of collecting information from the public, effectively prevents agencies from gathering feedback or user-generated content online. Adding a website survey requires an approval process which includes a public comment period. It's a Catch-22; we ask the public to comment on whether we can ask for their comments.

There is also a provision in the appropriations law which prohibits federal Web sites from using persistent cookies except under certain conditions. That disables a wide range of Web 2.0 applications. And after solving those technical issues, agency website managers still face a thicket of legal issues if they want to sign a contract with YouTube, Flickr or other sites the public takes for granted. GSA should be congratulated for recently negotiating agreements to allow the federal government to use some of these services without charge, thereby avoiding the need for contracts. If Congress wants the government to move into the Web 2.0 world, these laws, regulations, and procurement rules will need to be re-written.

#### Interaction with Citizens

Regulations.gov moved the regulatory process into the internet age. This is the perfect example of enabling e-democracy and enhancing public participation in our government. The Regulations.gov initiative applied new information and communications technologies to the hide-bound, inscrutable federal rulemaking process, making the process more efficient and ultimately producing better decisions. It is now time to move to the next level and next generation of Regulations.gov to improve the usability of the site.

The American Bar Association (ABA) released their 2008 report, "Achieving the Potential," giving their assessment of Regulations.gov, and recommendations to enhance and improve the site. (http://www.abanet.org/adminlaw/E-Rulemaking%20Report%20Web%20Version.pdf)

Similarly, the Cornell University Law School has launched their e-Rulemaking initiative (<a href="http://ceri.law.cornell.edu/">http://ceri.law.cornell.edu/</a>), conducting theoretical and applied research on the technology and practice of e-rulemaking, and making a number of recommendations to enhance Regulations.gov.

However, perhaps the American Bar Association and Cornell University should take a cue from Jerry Brito of the Mercatus Center. Like Cornell and ABA, Mr. Brito didn't like the Regulations.gov user interface. So, Mr. Brito created a Web 2.0 solution, and launched OpenRegulations.org which provides an alternative, competing interface to the Regulations.gov database. Has Mr. Brito done a better job than the government? We don't know; the marketplace of the internet will decide. But I do know, by providing searchable data and accessible systems, we are allowing people to access their government on their terms. And that is a success.

#### **Information Management Challenges**

When looking at the above examples, there are challenges in the expansion of these efforts. In order to understand the challenges, I recommend we take a step back and

examine how the federal government manages information in the 21st century. Information is valuable only if it is accurate, relevant, timely, and complete. We are producing, gathering, processing, storing and distributing more information and doing it faster than ever before. I would propose we redefine the use of information and information management. The government must plan for the total life cycle of the information from acquisition of information and information technology through the retirement of the information and proper records management. We need to contemplate how information could and should be managed and protected to ensure we can maintain our leadership and innovation in the global economy.

Current statutes lead to several policies at the government-wide level and department/agency level that are intended to address the government's risk-based approach to information management. Both public and private sector organizations struggle with this challenge. The complexities of the current environment make it difficult for public and private sectors to answer basic questions such as:

- 1. How much risk is acceptable?
- 2. What standards should we follow?
- 3. What is an acceptable technical solution?
- 4. Who is going to use my services?
- 5. What information is collected and why?
- 6. How we will use the information?
- Do I need a "System Records of Notice?"
- 8. What is our responsibility for identity theft?
- 9. What are the legal issues associated with data loss?

# Information Management Modernization

By examining the existing statutes and looking at the potential from the above examples, I believe this is an opportunity for Congress to move the Executive Branch into the 21st Century. For example, the federal business processes which govern Regulations.gov are founded in numerous statutes, OMB Circulars, and policy memos.

Dragging the 60-year old Administrative Procedures Act (APA) into the internet age is highlighting the gulf between today's internet driven expectation of instant communications and instant response with the purposefully slow-moving and deliberative processes prescribed by the APA. The APA (enacted in 1946); born in an era of slow, expensive, paper-based communication; mandates written documentation of the thoughtful disposition of every comment received. Today's generation is teaching us the value of broad online collaboration. Instant status updates to our friends; to our network of friends, are no longer novel; they're expected.

If Congress wants to achieve this level of transparency and participation in the regulation process, then you may want to revise how regulations are developed. For example, holding a public dialogue on potential environmental regulations, similar to the one happening now for Recovery.gov, could streamline the process.

- Would it really be necessary to publish it in the Federal Register?
- Would it be necessary for the agency to provide the information to OMB and specify the disposition of each comment?
- Does this approach take the place of the Docket? How do we know that all public comments have been addressed?
- Will the National Archives be able to take these records? Will future generations be able to retrieve the information to know the decisions were made?

The opportunity is here for the government to evolve to digital democracy. However, Congress needs to weigh the value of network collaboration against the value of legislative balance enacted in the APA. Along with the APA, there are many government statutes providing the foundation for information management. Here is subset of them:

- 1. *Privacy Act of 1974*: Addressed the abuse of privacy during the Nixon Administration;
- Computer Matching and Privacy Protection Act of 1988: Amended the Privacy
  Act of 1974 by adding certain protections for the subjects of the Privacy Act
  records whose records are using in automated matching programs;
- 3. Paperwork Reduction Act of 1980: Established to regulate matters regarding federal information and information policies intended to reduce the total amount of paperwork handled by the US government and the general public;
- Presidential Records Act of 1978: Established to govern the official records of Presidents and Vice Presidents created or received after January 20, 1981 and mandates the preservation of all presidential records;
- Federal Records Act of 1950, as amended: Established the framework for records management programs in Federal Agencies and the National Archives and Records Administration;
- 6. Clinger-Cohen Act, formerly the Information Technology Management Reform Act of 1996: Designed to improve the way the federal government acquires, uses and disposes information technology (IT);
- 7. *E-Government Act of 2002*: established to improve the management and promotion of electronic government services and provide a framework of measures requiring the use of Internet-based information technology to improve citizen access to government information and services; and
- 8. Federal Information Security Management Act of 2002: recognized the importance of information security to the economic and national security interests of the United States and required each agency to develop, document, and implement an agency-wide program to provide information security for the

information and information systems supporting the operations and assets of the agency including those provided or managed by another agency, contractor or other source.

# Implementation of Green IT

Only a few years ago, our concept of online content was e-mail and web pages. Today, society is rushing forward with online music, online movies, online television, and, of course, online government. This huge increase in online content has driven a need for more computers, more data storage, more networks, and, of course, more electricity to run all of them. While the effect of carbon emissions on global warming is debated, two aspects of energy consumption are irrefutable; electricity is expensive, and computers and data centers are ultimately limited by the heat they produce.

The government has not been static or complacent in this tug-of-war between electricity consumption and data demand; government has been leading a number of IT energy initiatives. The most obvious of these is the Environmental Protection Agency's (EPA's) work on green data centers, Labs21, and the Office of the Federal Energy Executive.

A less obvious energy initiative; the goal of OMB's Information Technology Infrastructure Line of Business (ITILOB) was to reduce the cost of IT infrastructure across the government. However, as a side benefit, the ITILOB, in conjunction with EPA, allowed agencies to perform a complete inventory of their computers and data centers energy consumption profile.

Another energy-saving initiative is a by-product of the Federal Desktop Core Configuration (FDCC). During 2007, OMB in collaboration with National Institute of Standards and Technology, the Departments Homeland Security and Defense, the National Security Agency, and Microsoft, developed a set of information security controls to be implemented on all Federal desktop computers running Microsoft Windows XP or VISTA. This set of controls is known as the Federal Desktop Core Configuration (FDCC). The initial impetus for this project was to improve the cyber security of these desktop computers. However, as a secondary benefit, the FDCC also optimizes the energy settings of every computer.

These are just a couple of the efforts underway which should continue and evolve to realize the promise of effective use and implementation of information technology.

#### Invest in High Priority and Cost Effective Information Technology Systems

Capital Planning and Investment Control (CPIC) and Enterprise Architecture (EA) are the tools the agencies should be using to achieve this goal. Congress, General Accountability Office (GAO), OMB and Federal agencies have focused a considerable amount of effort on ensuring investments in information technology are selected wisely, managed effectively, and delivered successfully—and yet agencies continue to struggle in delivering quality solutions on time and within budget. As agency IT investment

dollars have increased over the last decade, and systems have become more interconnected and therefore more vulnerable, the stakes have become even higher in getting large and complex development efforts right.

While imposing the disciplines of capital planning and investment management on individual major IT acquisitions and projects (i.e., Exhibit 300s also known as business cases) is both prudent and necessary from a management standpoint, this alone is insufficient to fully address today's IT investment challenges: recognizing and preventing unnecessary duplication of effort across federal, state and local governments, prioritizing projects; funding the most critical, beneficial, and cost effective investments; and then, sequencing and timing the development and deployment of major agency systems correctly.

Currently, agencies submit approximately 750 individual business cases through their Departmental offices to OMB. Agency investment review boards typically review only a subset of these in-depth, again on an individual basis. Rather than trying to electronically or otherwise digest the details of all of these "major" systems investments, relying on coding and mappings to functions in an abstract business reference model to identify common themes, and trying to discern which investments with seemingly equal merit are higher priority than others, OMB and Agency Heads alike would be well served if agencies could provide a "composite view" of their IT program, strategies, priorities and concerns, and a roadmap of prioritized and sequenced systems investments which maps to the other document produced such as the Agency's strategic plan, Information Resources Management Strategic Plan, E-Government Strategy and other major planning documents required by statutes and/or policy, to inform the budget formulation, prioritization and decision-making processes. This "composite view" of the agency IT program and investments should also clearly show where there are relationships and dependencies among major projects.

The agencies should be doing the heavy lifting for investment review and analysis, and presenting the results of their reviews and evaluations to OMB in the form of a strategic plan with supporting investment portfolio identifying and considering stakeholders and internal performance improvement opportunities and needs, a description of their IT architectural roadmap, and a discussion of overall IT management and operational performance (including issues such as security and privacy). To do this well, agencies should bolster the role and contribution of the Department-level CIO staffs in investment analysis and review beyond a mere pass-through of business cases to OMB. Equip and empower the CIO to provide meaningful investment analysis, strategy, and oversight, and do not continue to allow component agencies to disregard Departmental policy and direction by investing in IT independently of the larger organizational and government-wide strategy.

The old adage that "Timing is everything" is just as true for IT as anything else. The agencies should be challenged to learn to budget their intellectual resources and capacity to apply concerted organizational effort on complex problems and system implementations just as much as they do their budgetary resources. Oftentimes, they try

to develop too many new systems at the same time without a composite road map, sequencing plan, understanding of the dependencies and relationships among different systems, and a master schedule to guide their efforts. The results can be painful for all involved and costly for the American taxpayer. These types of preventable problems are difficult to see without the big picture. Even the best cost, schedule, and performance tracking for individual systems can miss impending collisions of this magnitude.

### Manage Project Execution and Risk: Cost, Schedule, Performance

The business cases OMB collects to support the budget formulation process are intended to serve as a living document throughout an investments lifecycle. However, most agencies devote time to updating these business cases only when they have to submit them to OMB as part of the budget process. They are not the best way, as I stated in the past, to track ongoing project execution and to have visibility into how projects are progressing and managing risk.

Earned Value Management (EVM) is often touted as a magic bullet solution to project cost and schedule overruns. This is not my experience. You have to know what you results you need to achieve for the tool to be effectively used. EVM is literally an industrial-strength solution to managing and measure progress on systems development efforts of a considerable magnitude and cost. However, it is not well suited or intended for small and medium sized projects, or those with relatively low development risk, as the cost to implement all of the planning, controls and tracking to the degree and level of precision prescribed may actually approach or exceed the investment in the project itself. EVM is best reserved for those projects that truly warrant that degree of complexity, what is termed, "major." However, I believe all IT investments should track, report and be held accountable for managing their cost, schedule and delivery on performance goals on a routine basis, whether using EVM or an "EVM-lite" performance tracking system more appropriate for the size, scope, nature and duration of the investment. Rather than relying solely on the annual exhibit review, moving to a more robust quarterly project reporting cycle for all projects in full acquisition would benefit both agencies and OMB's ability to provide adequate oversight.

Much stock is also put into "original," "programmatic," "performance measurement," and "current" baseline reporting. While I will not argue the value of tracking an investment's original intentions to the ultimate outcome, sometimes years down the road, perhaps too much emphasis is being put on adhering to sometimes fragile baselines. To expect that an IT investment, once conceptualized and proposed, enters into a vacuum of sorts in which legislative and other requirements, programs, priorities, funding, functional and technical requirements do not change so as to potentially alter the scope, schedule and cost of that investment is simply unrealistic. Rather, actively engaging risk awareness and management and applying strategies to invest in less large-scale, long-term and perhaps grandiose systems development efforts would lessen the risk of veering hopelessly off of a project's original or baseline investment target. Also, much like the business cases, to look at the cost and schedule variance of individual projects outside of the context of a master plan and schedule for the entire set of agency projects can be

misleading, as one project slips it can affect other projects and even cause a domino effect.

#### **Build upon Fundamentals**

When addressing the 21st Century Government, we should not lose sight of the progress made, and must build on the foundation in place. The CIOs are critical for a successful information management program and the effective use of IT. In 2004, GAO identified 13 major areas of CIO responsibilities (http://www.gao.gov/new.items/d04823.pdf) as either statutory requirements or critical to effective information and technology management. Whereas people commonly associate CIOs with computers and information technology, a review of these 13 responsibilities makes clear a CIO manages information, which is enabled through the effective use of information technology. And to be successful, the CIO must address all of them, from privacy and security to records management. They should not and can not pick and choose which ones they will address, but rather they need to ensure they all are addressed so the American people have the best government services, know what their government is doing, and participate in the process in the most effective manner. The Federal Government serves the American people and the agencies should have the tools from IT and staffing through the underlying framework of laws, policies, and guidelines necessary to achieve their missions.

#### Conclusion

Mr. Chairman, and Members of the Committee, this concludes my statement. Thank you for this opportunity to appear before the Committee. I would be pleased to answer any questions you have.