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SUBCOMMITTEE ON FINANCIAL SERVICES AND GENERAL GOVERNMENT

"Information Technology Oversight"

Good morning, Madam Chairwoman, Ranking Member Serrano, and members of the Subcommittee. Thank you for the opportunity to testify on ongoing efforts to reform Federal information technology.

For the past 25 months, we have focused on reforming Federal IT to cut waste and boost performance. Instead of accepting the status quo, the President has worked from day one to change how business is done in Washington.

We have cracked down on wasteful IT spending, eliminated duplicative infrastructure and saved money through game changing technologies and approaches. Through relentless oversight, we have reduced life cycle costs of major IT investments by $3 billion and decreased the average time for delivery of meaningful functionality from over two years to eight months. We are in the process of shutting down at least 800 Federal data centers by 2015. And we have already saved millions of dollars by deploying cloud computing technologies and leveraging challenges and prizes.

Most importantly, we have used what we have learned from our work to date to identify the structural changes required to drive sustainable improvements across government. The "25-Point Implementation Plan to Reform Federal Information Technology Management" (Attachment I), developed with input from Congress and the private sector, is focused on eliminating barriers that get in the way of achieving operational efficiency and effectively managing large-scale IT programs.

I. The Story of Federal IT

In the Federal Government, for too long we have witnessed runaway projects that waste billions of dollars and are years behind schedule. By the time some of these projects launch – if they launch at all – they are often obsolete.

These issues go back at least 40 years. In 1968, the Air Force Logistics Command estimated that it would take 10 years and $821 million to develop, implement and operate a new computer-based information and data processing system. In 1975, after $250 million had been spent, Congress ordered the termination of the project due to lack of progress.

In 1988, the National Institutes of Health (NIH) spent $800 million on mainframe computers that its researchers refused to use. NIH's failure to consult its users prior to the purchase contributed to millions of dollars of waste. Ultimately, some of the mainframes were made available to other agencies while the rest were relegated to performing administrative tasks, at a fraction of their capacity.

More recently, the Defense Integrated Military Human Resources System (DIMHRS) was canceled in February 2010 after 10 years of development and approximately $850 million spent – despite originally being planned for deployment in 2007 at a cost of $427 million. As Secretary of Defense Robert Gates put it "…years of effort, poor performance and difficulties" with DIMHRS have amounted to "an unpronounceable acronym."

These are but a few examples – unfortunately, there are many more. Simply put, the Federal Government needs to improve its ability to manage large, complex projects.

At the same time, the Government has also done a poor job controlling infrastructure costs. The Federal government currently spends $24 billion or 31 percent of its annual IT budget on often redundant and inefficient infrastructure. For example, since 1998 the Federal Government has increased the number of its data centers, from 432 to 2,094, a 385 percent increase. This is the opposite of what the private sector is doing. Large companies are radically reducing their number of data centers to significantly reduce facilities, energy, IT infrastructure and operations costs. This pattern is repeated in other commodity areas such as call centers, help desk, payroll, telecommunications and other enterprise services.

II. Making the tough decisions

To get a better return on investment for the American people, we have transformed the way we manage the Federal Government's IT projects – using transparency to shed light on government operations and to hold government managers accountable for results.

Cracking down on wasteful IT Spending

In June 2009, we launched the IT Dashboard, which transformed the way we look at Federal IT investments, making information on the performance of IT projects, such as project budgets and schedules, publicly available and constantly updated.

Using the Dashboard, anyone from agency officials to the American public can now identify and monitor the performance of IT projects, just as easily as they can monitor the stock market or

baseball scores. It shows budget, schedule and performance metrics. If a project is behind schedule or over budget, the Dashboard tells you that.

The Dashboard also ends the days of faceless accountability. It provides not only the contact information for the agency official responsible for the project, but also shows you their picture and lets you contact them directly to provide feedback on the project's performance.

In January 2010, we held the first TechStat Accountability Session. A TechStat session is a face-to-face, evidence-based review of an IT program, undertaken with OMB and agency leadership and powered by the IT Dashboard.

TechStat sessions have yielded results. For example, TechStat highlighted that the Department of Commerce's export control system (BIS ECASS 2000+) was duplicative. As a result, DOC halted new development and instead is migrating to a system operated by the Department of Defense.

In June 2010, we halted all financial system modernization projects representing approximately $3 billion in annual spending – requiring agencies to ensure that project plans were focused only on critical functionality and systems were broken down into small frequent deliverables.

Then in August 2010 we targeted 26 of the highest priority IT investments, to ensure that they deliver value to the American people. The Department of the Interior accelerated delivery of incident management and reporting system to the 6,000 law enforcement officers protecting the nation's natural resource and cultural monuments from 24 months to six month increments. The Department of Homeland Security also terminated its troubled National Flood Insurance Program IT modernization project, avoiding an additional $24 million in spending.

The high priority and financial systems reviews alone have led to over $3 billion in life-cycle cost reductions, and have reduced time to delivery from over two years to eight months.

Eliminating duplicative infrastructure

In addition to focusing on fixing poorly performing projects, we took significant steps to reduce our infrastructure footprint. By committing to shut down at least 800 of our 2,094 Federal data centers by 2015, we are taking on duplicative and inefficient spending on IT infrastructure that has grown unchecked for decades.

III. Saving money through game-changing technologies and new approaches

Federal agencies have been adopting new technologies and innovative approaches as a way to increase efficiency and reduce costs. By moving to the cloud and leveraging innovative tools to tap into the ingenuity of the American people, agencies are finding creative new ways to meet their needs.

Moving to the Cloud

To harness the benefits of cloud computing, we have instituted a "Cloud First" policy. This policy is intended to accelerate the pace at which the government will realize the value of cloud computing by requiring agencies to evaluate safe, secure cloud computing options before making any new investments.

By leveraging shared infrastructure and economies of scale, cloud computing presents a compelling business model for Federal leadership. Agencies will be able to measure and pay for only the IT resources they consume, increase or decrease their usage to match requirements and budget constraints, and leverage the shared underlying capacity of IT resources via a network.

$20 billion in annual IT spending could potentially move to the cloud. Some agencies are already taking advantage of the benefits afforded by the cloud, by reducing their ownership costs, improving productivity, and provisioning and scaling faster than ever before. The Department of Agriculture is migrating 120,000 users across 5,000 locations to the cloud, saving $27 million, while the General Services Administration (GSA) is shifting 17,000 email users to the cloud, reducing costs by $15 million over the next five years. The Census Bureau deployed a cloud-based customer self-service tool in just 25 days, rather than the six months it would have taken conventionally.

Creating an App Economy

Data.gov was launched with 47 datasets of government information. Today, there are more than 300,000 datasets, hundreds of apps created by third parties, and a global movement to democratize data. Already 11 cities, 24 states, 13 nations, and international organizations such as the World Bank and OECD have followed our lead in making data available to the public.

From these datasets, citizens are creating an app economy; developing hundreds of apps that include helping parents keep their children safe, letting travelers find the fastest route to their destinations, and informing home buyers about the safety of their new neighborhood. An example of a citizen-developed app that makes use of data provided through Data.gov is FlyOnTime, which provides travelers with real-time information on the on-time record of every flight between the cities on their itinerary, allowing them to select their carrier and departure time with an informed understanding of the likelihood of a delay.

Never before have people been so empowered with the information they need to make everyday decisions. New capabilities being deployed this month will make the data even more accessible and useful to citizens by enabling them to analyze, sort, group, and visualize the data live, via the cloud. Transforming data into information puts the data to work, allowing citizens to be more informed, make better decisions, and derive greater value from their government.

We also tapped into the ingenuity of the American people through prizes and challenges for innovative ideas and solutions. So far, the American people have helped the Government find the innovative path through over 70 competitions held to date on Challenge.gov. Nearly 30 agencies have sponsored challenges, from the Department of Energy seeking a new energy efficient lightbulb, to USDA asking students to create healthy school lunches, to FAA challenging colleges to improve the design of airports nationwide. In less than a year, we've seen many examples of individuals and organizations who have provided innovative solutions for government. The Apps for Army competition spurred the development of 53 web and mobile apps, with the top five winning apps supporting physical training, mental health, disaster relief, mapping, and recruiting. The Progressive Automotive X Prize resulted in winning vehicles that get over 100 mpg, meet all federal safety and other requirements, and promise to revolutionize the auto industry. The General Services Administration has made it easy and cost effective for agencies to conduct challenges, by establishing Challenge.gov as a common platform across government.

Now, for the first time, Congress has granted agencies the authority to use prizes and challenges to spur innovation through the America COMPETES Act. Dramatically increasing agencies' ability to leverage prizes and challenges, the enacted legislation gives us a whole new approach to solving government problems: we pay only for results, stimulate private sector investment in a challenge, and can increase public support and engagement around a particular issue or problem.

IV. Reforming Federal IT Management

On December 9, 2010, the Administration released the 25 Point Implementation Plan to Reform Federal Information Technology Management. The implementation plan spans 18 months, with deliverables in six month increments. To develop the plan we engaged the Federal IT, acquisition, and program management communities; industry experts; and academics. We conducted listening sessions with Congress, agency chief information officers (CIOs), and Senior Procurement Executives. The implementation plan focuses on achieving operational efficiency and effectively managing large scale IT programs:

- *Applying Light Technology and Shared Solutions* - Government agencies too often rely on proprietary, custom IT solutions. We need to fundamentally shift this mindset, from building custom systems to adopting lighter technologies and shared solutions. This is driving needed improvements within the pre-RFP process, to include the introduction of social technologies as part of the interactive collaboration with industry, citizens and agencies.

  The shift to "light technologies," that is, cloud services, which can be deployed rapidly, and shared solutions will result in substantial cost savings, allowing agencies to optimize spending, and allowing agencies to reinvest in their most critical mission needs. Agencies must focus on consolidating existing data centers, reducing the need for infrastructure growth

by implementing a “Cloud First” policy for services, and increasing their use of available cloud and shared services.

- *Strengthening Program Management* - The success of IT projects hinges on strong program management. But in government, program management is too often an afterthought. Take the program manager position. In most government agencies, this function is often filled on an ad-hoc basis with individuals temporarily pulled from other functional areas. As a result, agencies suffer from high turnover and a lack of expertise in this critical position. No matter how well-thought out our policies, no matter how well-informed our technology choices, and no matter how well-planned our investments, it is well-trained project managers, focused on execution, who will ultimately lead projects to success. Yet challenges in recruiting, training, and retaining top-tier project managers have made it difficult to put the best talent on the toughest projects.

  Effectively managing modular IT programs requires a corps of program and project management professionals with extensive experience and robust training. Strong program management professionals are essential to effectively steward IT programs from beginning to end, align disparate stakeholders, manage the tension between on-time delivery and additional functionality, and escalate issues for rapid resolution before they become roadblocks. The size and criticality of large Federal Government IT programs are considerable. The people managing these programs must represent the best of the best.

  Challenges with program management are pervasive across the Federal Government due to a general shortage of qualified personnel. However, pockets of excellence exist in the government. For example, the Social Security Administration (SSA) has developed a multi-tier career track for program managers that requires both training and experience for advancement. Program managers advance by gaining experience on small projects before moving to larger, more complex programs. SSA feels so strongly about the critical role of program managers that it will not begin a new program unless the right manager is in place and dedicated to lead it.

  High-performing IT organizations have a well-developed program management talent strategy. The Office of Personnel Management (OPM), working with the Chief Human Capital Officers Council, is taking steps to significantly enhance the supply of IT program management talent in the Federal Government by creating a career path to attract and reward top performers. In addition, agencies will establish integrated, multi-disciplinary program teams with key skills before beginning major IT programs. We have asked the CIO Council to establish a collaboration portal for program managers to share best practices at the close of each program, and to launch a technology fellows program. Finally, OPM, OMB, and the CIO Council will explore ways to encourage mobility of program managers across the government.

- *Aligning Acquisition and Budget Cycles with Technology* - The way that we currently budget and acquire IT is broken. The budget process forces agencies to specify in detail what they are going to build 24 months before they can even start a project, and the acquisition process routinely tacks on another 12 to 18 months, locking agencies into specific technology solutions that are almost by definition out of date by the time the project starts. Three years is forever in technology.

  The procurement reforms enacted in the 1990s provided tools to speed up the acquisition process, but the government has failed to take full advantage of those tools, so we continue to see programs delayed longer than the life of the technology. In particular, the use of multiple-award indefinite delivery, indefinite-quantity (ID/IQ) contracts, called for in the 1994 Federal Acquisition Streamlining Act (FASA), was intended to allow quicker issuance of task orders, to be competed through streamlined "fair opportunity" mini-competitions among the multiple contract holders. The creation of government-wide acquisition contracts (GWACs) for purchasing IT goods and services was also intended to provide a limited number of specialized vehicles open to the entire government that could quickly respond to individual agency needs.

  While the innovations in FASA have produced benefits, too often those tools are not used or not used effectively. IT acquisition, particularly for large projects, continues to move too slowly. We need to make real change happen, by developing a cadre of specialized acquisition professionals and by educating the entire team managing IT projects about the tools available to streamline the acquisition process.

  In addition, requirements are often developed without adequate input from industry, and without enough communication between an agency's IT staff and the program employees who will actually be using the hardware and software. Moreover, agencies often believe that they need to develop a cost estimate that is low in order to have the project approved. As a result, requirements are too often unrealistic (as to performance, schedule, and cost estimates), or the requirements that the IT professionals develop may not provide what the program staff expect – or both. Speeding up the acquisition timeline and awarding more successful contracts for IT requires a multifaceted set of solutions including increased communication with industry, high functioning, "cross-trained" program teams, and appropriate project scoping.

  As with the acquisition cycle, the rapid pace of technological change does not match well with the Federal Government's budget formulation and execution processes either. In addition, modular development means that lessons learned from an early cycle in an IT program will likely inform the detailed plans for the next cycle. As such, agencies need more flexibility to manage IT programs responsibly. To compensate for this misalignment between the realities of IT program management and the need for detailed budgets several years in

advance, several agencies have worked with Congress to achieve greater IT budget flexibility through multi-year and/or agency-wide portfolio appropriations.

To deploy IT successfully, agencies need the ability to make final decisions on technology solutions at the point of execution, not years in advance. Agencies need the flexibility to move funding between investments or projects within their portfolio to respond to changes in needs and available solutions.

But at the same time, Congress has a legitimate and important need for oversight; and given the history of project failures and wasted investments, it is understandable that Congress requires compliance with a rigid system for managing IT investments.

The Department of Veterans Affairs (VA) presents an interesting model. Greater budget flexibility has allowed the VA CIO to freeze projects that are off track and either restructure them for success or cancel them. VA established an accountability system so projects that are missing milestones are flagged early. Greater budget flexibility paired with real-time visibility is leading to success at VA – and minimizing the risk of "big bang" failures.

- *Streamlining Governance and Improving Accountability* - There is both a profusion and fragmentation of accountability across government that ultimately makes it hard for anyone to drive performance. There are layers upon layers of oversight and accountability across programs, bureaus, agencies, and departments. And that's before you get to GAO, Congress, and OMB.

  Take DHS for example. When we prepared for our first TechStat session to review IT projects with DHS, we had to sort through seven layers of oversight between the program manager and the Secretary's office. DHS isn't alone. These layers exist government-wide. These multiple layers create a false sense of security, and they delay difficult decisions. With so many people having some responsibility for oversight, true accountability is almost nonexistent.

  For too long we have shied away from making the tough decisions to halt, turn around or terminate underperforming projects. Poorly performing projects have been cancelled only after they have become newspaper headlines, wasting billions of taxpayer dollars.

  To strengthen IT governance, we need to improve line-of-sight between project teams and senior executives, increase the precision of ongoing measurement of IT program health, and boost the quality and timing of interventions to keep projects on track. These improvements will both boost the efficiency of project oversight and better manage programs in distress.

  Our strategy for strengthening IT governance centers on driving agency adoption of the "TechStat" model currently used at the Federal level. Our goal is to scale this capability across the Federal Government, increasing the number of programs that can be reviewed and

hastening the speed at which interventions occur. Through this strategy, we aim to enable agencies to grow their own performance management standards and focus OMB direct involvement on a limited number of highest-priority cases. So far, 129 agency representatives have been trained and eight agencies have conducted their initial TechStats.

- *Increasing Engagement with Industry* - Effective engagement with the private sector happens too rarely, as misinterpretations of acquisition regulations, coupled with the desire to avoid the appearance of impropriety have erected barriers between agencies and industry. While we must maintain the integrity of each and every acquisition, we also need to avoid allowing risk aversion to drive us into the mode where the government makes decisions without effectively engaging industry.

  The Federal Government does not consistently leverage the most effective and efficient available technologies. Federal IT contracts have been difficult to manage because they were not well-defined or well-written. These contractual challenges, which could be overcome with better communication with industry, often produce waste, delivery delays, and erosion of the value of IT investments.

  In many cases, agencies have been hindered by inadequate communication with industry, which is often driven by myths about what level of vendor engagement is permitted. The result has been barriers between industry and government buyers, whose efforts are often frustrated by a lack of awareness of the most efficient and effective technologies available in the private sector. These barriers negatively affect the acquisition process including needs identification, requirements definition, strategy formulation, the proposal process, and contract execution. In support of the 25 point plan, the Office of Federal Procurement Policy (OFPP) recently issued guidance to agencies to assist them in improving their communications with vendors and will continue to educate the community on the facts and myths of vendor engagement strategies. This will increase constructive and responsible engagement with the private sector IT community and improve the quality and cost effectiveness of the IT services provided.

Conclusion

We know we can deliver results, because we have already accelerated the delivery of IT functionality, re-scoped and terminated poorly performing projects, and saved money. But, we must continue to scale practices that we know work and drive execution to make Federal IT perform at the level the American people expect and deserve.

I look forward to answering your questions and working with you to address these critical Federal information technology issues.