

FINANCIAL SERVICES AND GENERAL GOVERNMENT APPROPRIATIONS FOR FISCAL YEAR 2015

WEDNESDAY, MAY 7, 2014

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 1:57 p.m., in room SD-138, Dirksen Senate Office Building, Hon. Tom Udall (chairman) presiding.
Present: Senators Udall, Johanns, Moran, and Mikulski.

THE PRESIDENT'S FISCAL YEAR 2015 FUNDING REQUEST FOR AND
OVERSIGHT OF FEDERAL INFORMATION TECHNOLOGY INVESTMENTS

OPENING STATEMENT OF SENATOR TOM UDALL

Senator UDALL. Good afternoon. I am pleased to convene this hearing of the Appropriations Subcommittee on Financial Services and General Government on the request for and oversight of Federal information technology investments.

First I want to welcome my ranking member, Senator Mike Johanns, and I think we will have other colleagues joining us as we move through these proceedings.

And with us today are four distinguished witnesses, the Federal Chief Information Officer, Steve VanRoekel; the Administrator of the General Services Administration, Dan Tangherlini; the Director of the Office of Personnel Management, Katherine Archuleta; and the Director of Information Technology Management Issues at the GAO, the Government Accountability Office, David Powner.

Thank you for your service, and I look forward today to hearing all of your testimony.

With the agencies here today that all play a Governmentwide role, I want to mention that this week is Public Service Recognition Week. I would like to take this opportunity to salute our public servants and the valuable work they do. And I think many of you have many of those valuable public servants within your agencies and organizations.

Today's hearing is important because updating our information technology systems is crucial. Our Government should be using cutting-edge, 21st century technology. Too often, it isn't. And that affects all of us.

Across the Federal Government, agencies rely on information technology, including financial management systems to track payments and manage funds, handheld devices and e-mail systems to

communicate with each other, Internet Web sites to communicate with the public and share information on what the Government is doing.

The technology is moving forward, but the Federal Government is falling behind.

Agencies operate on old systems, often with multiple programs that cannot speak to each other, and with outdated, obsolete technologies.

We also need to make sure that money is well spent. The Federal Government spends \$80 billion a year on information technology (IT) investments—every year—to operate outmoded systems agencies currently rely on and develop new ones. But \$80 billion a year, and we know there is waste and duplication.

We need to get the most out of every dollar. And too often, we don't.

The Federal Government's IT Dashboard identifies 201 major IT investments totaling more than \$12 billion, with significant concerns that need management attention.

Let me repeat that: 201 Federal IT investments. \$12 billion in question marks. That is not acceptable to any of us.

There are numerous examples of expensive multiyear projects over budget and delayed, of investments that ultimately failed, wasting taxpayer money and crippling the Government's ability to do its job.

At a time of tight budgets, we cannot afford to waste funds. We should not be paying more and getting less. Agencies need IT investments that are efficient and effective, that help them complete their missions.

Agencies have identified savings from duplication and waste within IT portfolios totaling over \$2.5 billion in the next 3 years. The Government Accountability Office (GAO) has identified additional savings by consolidating data centers. There are many opportunities to improve the way the Federal Government spends money on IT. We need to make the most of them.

At the same time, we need well-trained experts to do the work. For these investments to succeed, there are some existing and new tools being used by Federal agencies, but there may be more that can be done to train, recruit, and retain qualified IT specialists.

I want to make sure that citizens can depend on the Web to interact with their Government. IT is not a luxury. It is essential for individuals and for businesses. Small companies from places like Albuquerque and Las Cruces should be able to go online and find what Federal Government opportunities exist, and to be able to submit bids to compete for those opportunities.

American taxpayers should be confident that their money is being spent wisely and efficiently.

I look forward to hearing testimony today on how the fiscal year 2015 budget will advance oversight of IT investments and what more could be done. I am hoping that this hearing will help to guide this subcommittee's efforts as we evaluate the President's budget request and craft our appropriations bill.

I am also pleased to be working with my subcommittee colleagues, Ranking Member Johanns and Senator Moran, on bipartisan legislation to empower Federal agency chief information offi-

cers to drive more effective IT investments with more flexibility, transparency, and accountability.

And so with that, I turn to my ranking member, Senator Johanns, for any remarks he would like to make.

STATEMENT OF SENATOR MIKE JOHANNS

Senator JOHANNS. Thank you, Mr. Chairman. I want to say how much I appreciate you holding this important hearing today. As members of this committee, we, of course, have a responsibility to conduct oversight to ensure that hard-earned tax dollars of millions of Americans are spent appropriately, thoughtfully, wisely.

One area in need of this oversight is the \$82 billion the Federal Government will spend on IT in the fiscal year 2014. Given the resources at stake and the importance of the projects, it is imperative that the Office of Management and Budget (OMB) and other Federal agencies appropriately manage these acquisitions and improve transparency and efficiency.

We can all name the project that ended with failure or with serious problems. I can name healthcare.gov.

While a crisis makes news, also troubling are the accounts that simply don't grab headlines. They don't have the high profile, like projects with ongoing costs that grow year after year.

Long-term investments must represent good value. We must be able to assure our citizens that it is good value. So we have to have safeguards in place to ensure that oversight of these projects is consistent; that problems are anticipated, ideally before they occur; and, most importantly, that someone is accountable, someone is responsible.

Often, large, complex information technology projects drag on. Sometimes they outlast the administration that initiated them, and the employees responsible for managing them.

In our Financial Services and General Government bill alone, billions have been spent over the years on trying to modernize tax systems at the Internal Revenue Service (IRS). That work has just gone on and on and on. While these projects appear to be back on track now, past problems generated millions in costs and years of delay.

As recent press reports have reminded us, the Office of Personnel Management (OPM) has a long history of unsuccessful retirement modernization initiatives.

Recognizing the need to modernize its retirement processing in the late 1980s, OPM began initiatives aimed at automating its antiquated paper-based processes. However, following attempts over more than 2 decades, the agency has not yet been successful in achieving the modernized retirement system envisioned.

These results, or lack thereof, are the type that anger our constituents who see hard-earned tax dollars being squandered on seemingly endless failed initiatives, and they have a right to be concerned.

According to the Government Accountability Office (GAO), across the Government, IT projects too often go over budget, fall behind schedule, and don't deliver sufficient value. Responsibility for oversight of information technology projects is oftentimes fragmented throughout the specific agency owning the project, and the projects

and spending receive insufficient oversight, maybe from Congress, but also from the Office of Management and Budget.

Unfortunately, when it comes to IT spending, it appears there is not a lot of management or effective budgeting going on at OMB.

Whether issues relate to program requirements, performance, spending, security, there are lots of people involved, but oftentimes no clear lines of accountability.

So, Mr. Chairman, I think this hearing is enormously important. I look forward to the testimony of the witnesses.

We welcome you here. We hope you can enlighten us today with your testimony. I look forward to the opportunity to ask questions.

Thank you, Mr. Chairman.

Senator UDALL. Thank you very much, Senator Johanns.

And we are delighted today to be joined by our chairwoman of the Appropriations Committee, Senator Mikulski.

Senator Mikulski, if you would like to do an opening statement, we would be ready for that at this point.

STATEMENT OF SENATOR BARBARA A. MIKULSKI

Senator MIKULSKI. Mr. Chairman, I know we want to get on with our hearing, so I am going to welcome the witnesses, but I am going to thank you and Senator Johanns for convening this hearing.

For some time, both in my role as chair of the subcommittee on Commerce, Justice, Science, to now my chair of the full committee, I have become increasingly concerned about what I call techno-boondoggles.

Part of the job of the Appropriations Committee is to be a quiet guardian of the purse. Well, I intend to be a not-so-quiet guardian of the purse. And what I worry about is that we spend billions and zillions on technology projects that are often ineffective or lacking in utility to, often, dysfunction.

Just two examples, as the chair of the Commerce, Justice, we had a tremendous fiasco over the funding of the census, so much so that Secretary Gutierrez, who I have great admiration for as CEO of a major corporation, called me aghast, and we went back, taking the census by hand after billions.

We had a Federal Bureau of Investigation (FBI) project in which all the computers were supposed to talk, connect the dots. Again, a boondoggle. Had to go back and do it again.

And yet, I fear one of the greatest boondoggles could be now with our Veterans Administration, in which so many agencies have to talk to each other in order to get to where our veterans do not stand in line, disability claims, something I know you are both interested in.

So we have to get a handle on what is happening on these, and in these financial services with the particular people here to testify. The Federal Government has spent more than \$600 billion on IT investments over the last decade. And often, we end up doing it again and then again and then again. And I think it is time we get our arms around this.

PREPARED STATEMENT

The Appropriations Committee has to do it because we see everything and we fund everything. So let's get on with it. But I want you to know, working with Senator Shelby, we want to have a smart Government and a frugal Government, and IT could be one of our biggest challenges here. So thank you.

[The statement follows:]

PREPARED STATEMENT OF SENATOR BARBARA A. MIKULSKI

Thank you to Senators Udall and Johanns for convening this hearing. The American people are shocked—and so am I—every time it is discovered that billions of dollars have been wasted on what I call techno boondoggles.

These techno boondoggles are technology projects that should in theory make the Government more effective and efficient in providing services, but instead turn out to be complete flops.

The result of these flops is a lot of wasted time and taxpayer money. When things go wrong, we always see the 3 Bs—Big money, Big projects and Big failures.

This Committee has a responsibility to provide oversight of the funding for these projects to ensure that we get the most bang for our buck.

According to the General Accounting Office, the Federal Government has spent more than \$600 billion on technology or information technology (IT) investments over the last decade. Unfortunately, I don't think we have gotten a good return on this investment.

We have spent billions of dollars on projects that have languished for years, only to be canceled or replaced with something else. This is inexcusable!

One of the best examples of this type of techno boondoggle comes from the Air Force, which tried to replace 240 outdated computer networks with one system. In theory, that sounds like a great idea. But in reality, the agency spent \$1 billion and wasted 5 years before eventually terminating the project altogether in 2012.

Senator McCain described it as “one of the most egregious examples of mismanagement” he had ever seen.

Another example comes from the Department of Homeland Security attempt to create a new passenger screening system for people traveling by plane.

After spending \$42 million and 8 years, they scrapped the whole project and replaced it with a different new screening system.

Those are just two examples—sadly, I could cite dozens of others.

Today I would like to hear how we can stop this kind of unnecessary spending. As Chairwoman of the Appropriations Committee, I'm committed to providing significant oversight of these projects and I believe this hearing is a good first step.

Last week, I convened a hearing on the importance of innovation and research. Those investments save lives, improve national security and create jobs. Innovation can also improve the performance of Federal agencies and help the Government better serve our constituents.

When a techno boondoggle occurs, we not only waste tax dollars, but we hamper the delivery of services to the American public that depends on them.

For example, the Department of Veterans Affairs processes and distributes disability payments to millions of veterans across the country. The Social Security Administration provides disability payments to millions of Americans, while the Office of Personnel Management manages Federal employee retirement benefits for millions of people, including many of my constituents.

My staffers who handle casework for these three agencies are some of the busiest people I know because of the ongoing backlogs. These backlogs weren't created by failed IT systems, but they were certainly made worse.

At a time of smaller budgets and difficult spending decisions, we have to make sure every dollar is spent wisely. When the Federal Government signs an IT contract, we are not only signing a contract with a company to build a program or implement a system. We are signing a contract with the American people that promises their tax dollars will be spent wisely and in a way that advances the mission of the agency.

I take this responsibility very seriously and look forward to hearing from our witnesses.

Senator UDALL. Thank you, Madam Chairwoman. We really appreciate your involvement in this. I know that this is something you have cared about passionately for a long time.

Mr. VanRoekel, I would like you to present your remarks on behalf of the Office of Management and Budget.

STATEMENT OF HON. STEVEN VanROEKEL, CHIEF INFORMATION OFFICER, OFFICE OF MANAGEMENT AND BUDGET

Mr. VANROEKEL. Thank you, sir. Chairman Udall, Ranking Member Johanns, and Chairwoman Mikulski, thank you for the opportunity to testify on the President's fiscal year 2015 budget request for the improvement of Federal information technology investments and oversight.

It is important to consider this request in the context of the President's overall fiscal year 2015 budget request for the Office of Management and Budget, which is \$93.5 million and 480 full-time equivalent employees.

This request would enable OMB to address the growing workload while more effectively overseeing program management and funding across more than 100 Federal agencies and departments. This is a critical investment with returns in the form of improved program management, budgetary savings, and smarter regulations, some of the many critical outcomes that the administration, Congress, and the American people look to OMB to help ensure.

The Office of E-Government and Information Technology's work is core to achieving each of those aims. I would like to take a minute to discuss what our work has achieved to date and what our focus will be moving forward.

Every day during my nearly 20 years in the private sector, I focused on improving and expanding core services and customer value while also cutting costs. When I joined the administration in 2009, I found willing partners in this mission and have spent the past 3 years in OMB focused on maximizing the return on investments in Federal information technology, driving innovation to meet customer needs, and establishing a foundation for securing and protecting our information systems.

In the decade prior to this administration, the Federal IT budget increased at the compound annual growth rate of 7.1 percent a year. If spending had increased at the same rate during this administration, our current budget IT request would total \$117 billion, not the roughly \$80 billion that is being requested for information technology across the Federal Government in fiscal year 2015.

Throughout the President's first term and into today, we have focused on establishing mechanisms to stop this growth in IT spending. We have flatlined IT spending, and since 2012, our PortfolioStat data-driven accountability sessions have resulted in over \$2.5 billion in identified cost savings and \$1.9 billion in realized savings, showcasing the results of the administration's Governmentwide policies to drive this efficiency.

With these efficiency efforts firmly underway in fiscal year 2014 and fiscal year 2015, the administration is increasing its efforts to deliver smarter, more effective applications of technology. This work, which the President's fiscal year 2015 budget supports as

part of the President's management agenda, focuses on ensuring the Federal Government has three things: one, the best talent working inside Government; two, the best companies working with Government; and three, the best processes in place to make sure everyone involved can do their best work and, more importantly, be held accountable for delivering excellent results to the American people.

To support this work, the fiscal year 2015 budget requests \$20 million for the Information Technology Oversight and Reform Fund. This fund will use data, analytics, and digital services to improve the efficiency, effectiveness, and security of Government operations and programs. This funding will also allow OMB to continue the work of PortfolioStat, enhance cybersecurity capabilities, and create the Digital Service, a centralized, world-class team made up of our country's brightest digital talent. These people will be charged with removing barriers to exceptional Government service delivery and remaking the digital experiences that citizens and businesses have with their Government.

The Digital Service, in close partnership with the General Services Administration's (GSA's) 18F delivery team, will establish standards to bring the Government's digital services in line with the best private sector service experiences, to identify gaps in their service capability, and to provide oversight and accountability to ensure we see results.

It will work side-by-side with agencies to ensure they have the resources and talent needed to deliver great services on time, on spec, on budget, and with optimal user functionality.

This capability, which will drive effectiveness across key citizen-facing services, is being incubated now under my office in OMB in fiscal year 2014 and, if funded, will expand in fiscal year 2015.

The fiscal year 2015 Information Technology Oversight and Reform (ITOR) request, this fund, represents a modest investment in comparison to the total Federal IT spending of approximately \$80 billion annually. And through the ITOR fund, and the help of this subcommittee in both the Senate and the House, we have delivered tangible results in Government technology efficiency. And we look forward to accelerating this return on investment as we apply these efforts to effectiveness of technology in 2015.

In conclusion, it is apparent, in today's world, we can no longer separate the outcomes of our Federal programs from the smart use of technology. By increasing emphasis on customer needs and making it faster and easier for individuals and businesses to complete transactions with their Government, online or off-line, we can deliver the world-class services that they expect.

PREPARED STATEMENT

I am excited to continue working with this subcommittee on our shared goals and look forward to our conversation and questions. Thank you.

[The statement follows:]

PREPARED STATEMENT OF HON. STEVEN VANROEKEL

Chairman Udall, Ranking Member Johanns, and members of the subcommittee, thank you for the opportunity to testify on the President's fiscal year 2015 request for the improvement of Federal information technology (IT) investments.

During my 20 years in the private sector, I woke up every day focused on improving and expanding core services and customer value while also cutting costs. I brought this focus with me to the Federal Government. When I joined the administration in 2009, and the Office of Management and Budget (OMB) in 2011, I found willing partners in this mission and have spent the past 3 years at OMB focused on driving innovation to meet customer needs, maximizing our return on investments in Federal information technology, and establishing a trusted foundation for securing and protecting our information systems.

Before discussing the administration's fiscal year 2015 request for the Information Technology Oversight and Reform (ITOR) fund and Office of E-Government, I want to raise OMB's overall fiscal year 2015 budget request. The President's fiscal year 2015 budget for OMB requests \$93.5 million and 480 full-time equivalents (FTEs) to address growing workloads while making targeted investments to enable OMB to more effectively oversee program management and funding across more than 100 agencies and departments throughout the Federal Government. The budget request would bring OMB back up to a staffing level comparable to 2009, though well below 2010, and support our expanded role in a number of key priority areas for this subcommittee. This is a critical investment with large returns in the form of improved program management, budgetary savings, and smarter regulations—some of the many critical outcomes that the administration, Congress, and the American people look to OMB to help ensure. While OMB has taken on a number of new functions and responsibilities in recent years, our funding and staffing levels have been significantly constrained and have not kept pace with our counterparts at the Congressional Budget Office. Today, OMB is 11 percent smaller than as recent as fiscal year 2010, with a fiscal year 2014 estimated FTE level of 470. As a result of sequestration, OMB employees were required to take 8 furlough days last year—the most of any agency in the Federal Government. While the funding restored in fiscal year 2014 appropriations was a step in the right direction, and we thank the subcommittee for its support, there is still work to be done. The requested funding will allow OMB to continue to play a central role in supporting the development and execution of a wide range of crucial programs and policies and managing critical Government functions. Today more than ever, OMB has a central role to play in our efforts to move our economy forward by creating jobs, growing the economy, and promoting opportunity for all.

FOCUS ON EFFICIENCY

Constantly improving the state of Federal technology is a priority for this administration and is a mission that OMB takes seriously. In these times of fiscal constraint, this means we must drive innovation while controlling spending—by maximizing effectiveness and efficiency in everything we do. The administration's first term efforts largely focused on establishing mechanisms to stop out of control IT spending, promoting new technologies such as cloud computing and mobile, opening up Federal Government data for private sector use, enhancing cyber capabilities, and deploying Federal technology as a tool to increase efficiency to allow Government to do more with less.

In the decade prior to this administration, the Federal IT budget increased at the compound annual growth rate of 7.1 percent. If spending increased at the same rate during this administration, our current IT budget request would total \$117 billion. However, through PortfolioStat data-driven accountability sessions, and with the help of this subcommittee, Federal agencies enhanced analytical approaches to more effectively manage Federal IT portfolios and improve IT cost oversight. The Office of E-Government established a rigorous, continuous process for agencies to drive and measure information technology savings through the consolidation of duplicative services and other tactics to fund investment in innovation.

The result is over \$2.5 billion of identified cost savings and \$1.9 billion of realized savings through the PortfolioStat process and a consolidation of commodity IT. During this administration, we flatlined Federal IT spending, driving efficiencies and fueling innovation across the Federal technology portfolio, through initiatives like data center consolidation, cloud computing and the administration's Digital Government strategy, all the while working to keep Federal data safe and secure. Through these efforts and others, Federal agencies began to seize upon productivity gains seen in the private sector and apply technology to improve efficiency of our Government.

FOCUS ON EFFECTIVENESS

With our actions to drive efficiency across IT portfolios firmly underway, the administration is also increasing its efforts to deliver smarter, more effective applications of technology to improve the delivery of Federal services, information, and benefits. In doing so, we are applying the same rigor and data-driven analytical capabilities we used to drive efficiency across Federal IT to ensure agencies use IT effectively to deliver on their core missions.

To deliver citizens the services they expect from their Government, we must shift the focus of Federal Government IT projects from compliance and process to meeting user needs. We must be intensely user-centered and agile, involve top talent from the private sector in Government IT projects, and ensure agency leadership is actively engaged and accountable to the public for the success of the digital services of their agency. To support this effort, the administration's Smarter IT Delivery Agenda seeks to improve the value we deliver to citizens through Federal IT, and the speed and cost-effectiveness with which it is delivered.

The work of the Smarter IT Delivery Agenda builds upon the progress of reshaping the delivery of information technology already underway, as well as introduces new approaches and tools to transform the Government IT landscape. To do this, we are focused on a three-part agenda focused on ensuring the Federal Government has: (1) the best talent working inside Government; (2) the best companies working with Government; and, (3) the best processes in place to make sure everyone involved can do their best work and be held accountable for delivering excellent results for our customers, the American people.

The Smarter IT Delivery Agenda aims to increase customer satisfaction with top Government digital services; decrease the percentage of Government IT projects that are delayed or over budget; and increase the speed with which we hire and deploy qualified talent to work on Government IT projects.

There are several key projects already underway, and we will undertake additional projects in the coming months as the agenda continues to evolve.

FOCUS AREA 1: GET THE RIGHT TALENT WORKING INSIDE GOVERNMENT

IT excellence starts with having the best people executing IT in Government. While there are many talented IT professionals across Government, it is clear that we need to broaden and deepen this talent pool to meet present and future needs.

We must also work to solve the current challenges facing Government when it comes to quickly hiring qualified technical talent. IT is already one of the most competitive job markets in our economy, but Government hiring processes make competing for that talent even more challenging. Today, the average hiring cycle for IT specialists in the Federal Government is over 100 days. The norm for leading private sector companies is 7–14 days. Given the competitive markets for technical talent, Government is often unable to acquire top candidates given the current hiring process.

The Digital Service

To accelerate the pace of change, we are standing up a Digital Service—a centralized, world-class capability that is part of the Federal Chief Information Officer (CIO) Team made up of our country's brightest digital talent, which we will pilot with existing funds in 2014, and scale in 2015 according to the President's fiscal year 2015 budget. The team will be charged with removing barriers to exceptional Government service delivery and remaking the digital experiences that citizens and businesses have with their Government.

Through a modest team of people housed within the E-Government office at OMB, the Digital Service will establish standards to bring the Government's digital services in line with the best private sector service experiences, define common platforms for re-use that will provide a consistent user experience, collaborate with agencies to identify gaps in their delivery capacity to design, develop, and deploy excellent citizen-facing services, and provide oversight and accountability to ensure we see results. The Digital Service is a close partnership with the 18F delivery team at the U.S. General Services Administration (GSA), and will work side-by-side with agencies to ensure they have the resources and talent needed to deliver great services on time, on spec, on budget, and with optimal user functionality.

Flexible Hiring Authority Options for IT Talent

Building on the success of the Presidential Innovation Fellows program—a program that is delivering low cost, innovative solutions like RFP-EZ, advancing open data initiatives at agencies and more—the administration is pursuing flexible hiring authority options for IT talent, reducing barriers to the hiring of key digital experts

in Government. The program is being developed in partnership with the Office of Personnel Management, and would be phased in with agencies such as GSA.

FOCUS AREA 2: GET THE BEST COMPANIES WORKING WITH GOVERNMENT

The administration is also taking steps to reduce barriers and burdens in Federal procurement and increase the ability for innovative and non-traditional companies to work with the Federal Government with FBOpen—a new platform that allows easier access to Federal opportunities. In addition, OMB recently worked with GSA and procurement experts across Government on an open dialogue¹ to reduce barriers and burdens in Federal procurement.

Open Dialogue

The open dialogue was a joint effort between the Chief Acquisition Officers Council, OMB, GSA, and the Chief Information Officers Council to engage all stakeholders in the acquisition community to better understand the opportunities and challenges they face when doing business with the Federal Government. The focus of the dialogue was to generate solutions in three areas: streamlining reporting and compliance requirements, identifying industry best practices, and increasing participation by qualified non-traditional Government contractors. We anticipate that we will have recommendations for actions emerging from this work, and are eager to work with Congress on developing a whole-of-Government approach to improving Federal acquisitions.

FOCUS AREA 3: PUT THE RIGHT PROCESSES AND PRACTICES IN PLACE TO DRIVE OUTCOMES AND ACCOUNTABILITY

Complicated Federal IT projects often face similar challenges: (1) they lack visibility and real-time communication among the technical or IT staff, the mission or business owner, and the executive team; (2) they use the outdated waterfall approach to technology development, which includes long lead requirements setting rather than the agile approaches—where products are developed in rapid, iterative cycles—that have made the consumer Internet so successful; and (3) there is responsibility and accountability regarding compliance issues, but not enough end-to-end responsibility for the project actually working for its intended users at targeted investment levels. Taken together, these qualities can result in sub-optimal outcomes and high costs.

To address these issues, the administration will focus its efforts on driving accountability for customer service, mission results and cost; sharing best practices; and guiding agencies and contractors in delivering great digital services.

Tech FAR Guide

The administration will develop a compilation of the 21st century, agile aspects of the Federal Acquisition Regulation (FAR) that will guide agencies in soliciting services in new ways—ways that more closely match techniques used by the private sector—such as using challenges and crowdsourcing approaches to involve citizens, writing requirements that allow for more flexible execution, or a pay-for-service model. In particular, the guide will include FAR-allowed processes used by agencies that have successfully implemented IT projects, many of which are currently underutilized.

Digital Service Playbook

The administration will develop a Digital Service Playbook to share best practices for effective IT service delivery in Government. This playbook will build on successes both within and outside Government and will guide both technical and business owners within agencies. It will include best practices for building modern solutions across the implementation of the technology, how to measure customer input and manage customer expectations, and how to share solutions across Government.

PortfolioStat 2014

This spring, the administration is implementing PortfolioStat 2014, the third year of this successful program. PortfolioStat 2014 will not only continue the rigorous data-driven focus on finding efficiencies in agencies that has resulted in \$1.9 billion in savings since 2012, but also adds a new focus on accountability around service delivery to ensure agencies are accountable for delivering on their highest impact IT investments. As I have testified previously, the PortfolioStat process brings together technology experts with the agency's senior accountable officials and Deputy

¹ <http://www.gpo.gov/fdsys/pkg/FR-2014-04-23/pdf/2014-09129.pdf>.

Secretary to evaluate agency performance against measured outcomes and increase accountability and responsibility within agencies.

THE INFORMATION TECHNOLOGY OVERSIGHT AND REFORM FUND AND ENHANCED
CYBERSECURITY

To support this work, the fiscal year 2015 budget requests \$20 million for the Information Technology Oversight and Reform (ITOR) fund. This fund, previously known as the Integrated, Efficient, and Effective Uses of Information Technology (IEEUIT), will use data, analytics and digital services to improve the efficiency, effectiveness and security of Government operations and programs.

With the funding requested for fiscal year 2015, OMB would continue the work of PortfolioStat and enhance cybersecurity capabilities that will ensure we can protect our country's national digital assets. The additional funding represented in ITOR will enable OMB to better leverage analytics and industry expertise to conduct targeted, risk-based oversight reviews of agencies' cybersecurity activities. The result of these efforts will inform future Federal information security policies, metrics, and Cross Agency Priority (CAP) goals, and will ensure successful implementation of important policy work underway with continuous diagnostics, anti-phishing, and identity management initiatives. The fiscal year 2015 ITOR request represents a modest investment in comparison to the total Federal IT spending of approximately \$80 billion annually. Through the ITOR fund and the help of the subcommittee, we have delivered tangible results in Government technology efficiency. We look forward to delivering the same return on investment from these funds as we apply them to effectiveness of technology in fiscal year 2015.

CONCLUSION

In conclusion, it is apparent that in today's world we can no longer separate the effectiveness of our Federal programs from the smart use of IT. By increasing emphasis on customer needs and making it faster and easier for individuals and businesses to complete transactions with the Government—online or offline—we can deliver the world-class services that citizens expect. To do this it is imperative that we get the best talent working inside Government, the best companies working with Government, and the best processes in place to deliver results for our customers, the American people.

Mr. Chairman and members of the subcommittee, thank you for holding this hearing and inviting me to speak today. I appreciate this subcommittee's interest and ongoing support and I am excited to continue working with the subcommittee on our shared goal of improving the efficiency and effectiveness of our Government. I would be pleased to answer any questions you may have at this time.

Senator UDALL. Thank you very much, Mr. VanRoekel.

Administrator Tangherlini, I invite you now to present your remarks on behalf of the General Services Administration.

STATEMENT OF HON. DAN TANGHERLINI, ADMINISTRATOR, GENERAL SERVICES ADMINISTRATION

Mr. TANGHERLINI. Thank you very much and good afternoon, Chairman Udall, Ranking Member Johanns, full committee Chair Mikulski, members and staff of the committee. My name is Dan Tangherlini, and I am the administrator of the U.S. General Services Administration, or GSA.

Before focusing on the topic of today's hearing, I would like to do two things, first, introduce our new deputy administrator, Denise Roth, who as chief operating officer will focus, among other duties, on internal GSA information technology. And next, I would like to thank the chairman, the ranking member, committee members, and staff for your hard work on the fiscal year 2014 Consolidated Appropriations Act, especially in the current funding environment.

This legislation represented a positive step forward for our Nation and for our economy. Among its many provisions, the act made available more than \$9.3 billion in funding for GSA to invest in our Nation's public building infrastructure, pay rent for our leased

buildings, consolidate offices to save money, and upgrade land ports of entry to secure our borders.

GSA's fiscal year 2015 budget request looks to continue these efforts. And I want to sustain our partnership to make sure this is not an isolated investment, but a foundation for a long-term, sound management of our Government's real property infrastructure.

The challenges of technology procurement and delivery facing the Government have been a focus for better management and oversight throughout this administration. Given GSA's mission to deliver the best value in real estate acquisition and technology services to the Government and the American people, we believe we are uniquely positioned to help make a difference in these efforts.

Through better management of our own IT investments, as well as offerings GSA provides Governmentwide, GSA can support the administration's efforts to better manage IT.

Since my arrival at GSA, we have been focused on consolidating and streamlining major functions within the agency to eliminate redundancy, improve oversight, and increase accountability. As part of GSA's top-to-bottom review, GSA brought together all IT functions, budgets, and authorities from across the agency under an accountable, empowered GSA Chief Information Officer (CIO) in line with the best practices followed by most modern organizations today.

GSA now has one enterprise-wide process for making IT investments, which ensures that investments are geared toward the highest priorities in support of agencies' strategic goals.

We set internal goals to reduce ongoing operating costs to allow the organization to make better long-term investments using our enterprise-wide, data-driven IT budget process.

Consolidation also provides an opportunity to adopt the best forward-leaning practices in supporting investments. In recognition of the need to modernize not just applications, but how we support IT, and consistent with broader Federal efforts, GSA instituted a cloud-first policy that prompts all application development initiatives to look first to the GSA cloud platforms before considering legacy platforms with higher operational costs.

The focus of our transition has not been limited to what we build, but also how we build. Our move to an agile development shop has resulted in a significant increase in our ability to rapidly deploy and scale.

Consolidated IT governance is also helping GSA realize a high-performing IT environment as effectively and efficiently as possible while also providing a level of transparency and accountability that will lead to continuous, ongoing improvement.

GSA also looks for opportunities to help agencies adopt new technologies and take advantage of digital services that improve mission delivery and enhance their interactions with the public.

For example, we recently announced the creation of 18F, the digital delivery team within GSA that aims to make the Government's digital and Web services simple, effective, and easier to use for the American people.

By using lessons from our Nation's top technology startups, these public service innovators are looking to provide support for our

Federal partners in delivering better digital services at reduced time and cost, and making us a better consumer of IT.

GSA's internal IT reforms, acquisition solutions, and digital services are in keeping with our mission to deliver the best value in information technology solutions to Government and the American people.

PREPARED STATEMENT

GSA still has a lot of work ahead of us, and I am grateful for the subcommittee's support for our reform efforts. I appreciate the opportunity to appear before you today, and I am happy to answer any questions that you have. Thank you.

[The statement follows:]

PREPARED STATEMENT OF HON. DAN TANGHERLINI

Good afternoon, Chairman Udall, Ranking Member Johanns, and members of the subcommittee. My name is Dan Tangherlini, and I am the Administrator of the U.S. General Services Administration (GSA).

The challenges of technology procurement and delivery facing the Government have been a focus for better management and oversight throughout this administration. They present an opportunity to deliver better outcomes for the American people in a more efficient manner. Given the U.S. General Services Administration's mission to deliver the best value in real estate, acquisition, and technology services to the Government and the American people, we believe we are uniquely positioned to help make a difference in these efforts. Through better management of our own information technology (IT) investments, as well as offerings GSA provides Governmentwide, GSA can support the administration's efforts to better manage IT and help to continue improving some of these longstanding challenges.

GSA INFORMATION TECHNOLOGY

Empowering the Chief Information Officer

Since my arrival at GSA, we have been focused on consolidating and streamlining major functions within the agency to eliminate redundancy, improve oversight, and increase accountability. Consistent with the administration's push to strengthen Chief Information Officer (CIO) authorities, GSA brought together all IT functions, budgets, and authorities from across the agency under an accountable, empowered GSA CIO, in line with the best practices followed by most modern organizations today. GSA has moved from 17 different regional and bureau CIOs to one enterprise CIO office. To improve management and accountability, GSA established the Investment Review Board co-chaired by the GSA CIO and Chief Financial Officer (CFO) with oversight and authority over all GSA IT spending. Prior to this consolidation, GSA's business lines and often the regions had separate IT systems and budgets, providing limited visibility and oversight into proposed investments and creating significant redundancy and inefficiency.

Enterprise Planning

GSA now has one enterprisewide process for making IT investments, which ensures that investments are geared toward the highest priorities in support of the agency's strategic goals. We are now able to more comprehensively look at the portion of spending that is focused on operating and maintaining existing systems. We have set internal goals to reduce ongoing operating costs to allow the organization to make better long-term investments using our enterprisewide, data driven zero-based IT budgeting process.

Zero-based IT Budgeting

GSA is beginning to leverage an internal zero-based IT budgeting (ZBB) process to develop the IT budget. ZBB is a budgeting method that requires justification for all expenses in each new fiscal period. This method will ensure budgeting processes align to the organization's strategy by tying budget line items to specific strategic goals and initiatives. For instance, GSA used to maintain multiple systems to track engagements with partner Federal agencies. Through these changes, GSA's major business lines will share these tools, facilitating a two-fold win. From an IT perspective, we eliminated the cost of maintaining redundant systems, resulting in lower

operations and maintenance costs. From the mission execution side, we improved engagement with partner Federal agencies by putting a more complete picture of who we work with in the hands of our staff.

Enhanced Use of Cloud Computing and Consolidation of Data Centers

Consolidation also provides an opportunity to adopt the best forward-leaning practices not just in where and what IT investments are made, but also how we support these investments. In recognition of the need to modernize not just applications but how we support IT, and consistent with broader Federal efforts, GSA instituted a “cloud first” policy that prompts all application development initiatives to look first to the GSA cloud platforms available as technology solutions before evaluating legacy platforms with higher operational costs. In doing this, GSA has saved money not only in the areas of reduced infrastructure costs, but also through the reuse of previously developed functionality. This initiative in part has also allowed us to consolidate 1,700 legacy applications into fewer than 100 cloud-based applications between 2011 and 2013. GSA’s use of cloud services has saved \$15 million¹ over the past 5 years. GSA has also been aggressive in shutting down unneeded data centers as part of the Federal Data Center Consolidation Initiative. In fiscal year 2013, GSA shut down 37 data centers, meeting our goal, and we intend to shut down an additional 24 this fiscal year.

Agile Development

The focus of our transition has not been limited to what we build, but also how we build. GSA IT has moved away from the world of waterfall application development methodologies that have historically led to higher costs and poor product quality, to an agile methodology which allows us to work better, faster, and leaner than we ever have before. Our move to an agile development shop has resulted in a significant increase in our ability to rapidly deploy and scale. As a result, beginning in 2013, GSA’s development cycle time has been reduced to 6 to 8 weeks from 8 to 12 months.

These IT reform initiatives have resulted in more efficient allocation of IT resources. In fiscal year 2013, GSA spent \$698 million in IT spending. In fiscal year 2015, GSA requested \$572 million, a reduction of nearly 18 percent. We have cut 45 full time equivalent positions in the IT area and identified several duplicative systems in the regions and between various offices that are now being consolidated. In addition, GSA’s strategic hiring plan is focused on obtaining IT skills through Government hires to allow us to decrease the reliance on contractors in some areas.

Consolidated IT governance helps GSA realize a high performing IT environment as effectively and efficiently as possible. Enterprise IT governance will ensure GSA is investing in the right initiatives at the right time, allow greater oversight of key IT investments, and promote interoperability and transparency through the GSA enterprise. It also allows a level of transparency and accountability that will lead to continuous ongoing improvement.

IT ACQUISITION SOLUTIONS

In addition to our efforts to better manage internal GSA IT investments and policies, we also offer acquisition solutions to agencies that deliver savings and enable them to focus more on core mission activities.

GSA aggregates and leverages the Federal Government’s buying power to obtain a wide range of information technology and telecommunications products and services in support of agency missions across Government through contract vehicles like Schedule 70 and Networx. Schedule 70 is an indefinite delivery/indefinite quantity (IDIQ) multiple award schedule that provides direct access to products, services, and solutions from more than 5,000 certified industry partners. Networx provides cost-effective solutions for partner agencies’ communications infrastructure and service needs. Through better pricing of these and other similar acquisitions, GSA helped agencies save more than \$1 billion in fiscal year 2013, and will help them save an additional \$1 billion in fiscal year 2014 on these acquisitions.²

Additionally, GSA is currently developing the Prices Paid Portal. This proof of concept tool is intended to provide greater visibility into the prices paid by Government agencies for commonly purchased goods and services. Currently, the system is being populated with initial data on simple commodities such as office supplies, with data on more complex items to follow. Allowing the Federal acquisition community to see and analyze the cost of these goods and services is intended to drive bet-

¹ Savings resulting from use of cloud services, such as Salesforce Platform as a Service, and E-mail as a Service.

² Compared to commercial pricing for comparable services and terms and conditions.

ter pricing for all future Federal procurements. Our hope is to replicate our purchasing experience as individuals where comparative market pricing information is widely available, such as many e-commerce, travel and secondary market portals.

INNOVATIVE TECHNOLOGIES AND DIGITAL SERVICES

GSA also looks for opportunities to help agencies adopt new technologies and take advantage of digital services that improve mission delivery, and enhance their interactions with the public. For example, the Federal Risk and Authorization Management Program (FedRAMP) is a Governmentwide program that accelerates adoption of cloud computing across Government by providing a standardized approach to security assessment, authorization, and continuous monitoring for cloud products and services. This mandatory approach, which uses a “do once, use many times” framework, is saving cost, time, and staff required to conduct redundant agency security assessments.

GSA helps to ensure that we have tools that allow the Government to access the ingenuity of the American people to help solve Government’s challenges. GSA manages Challenge.gov, an award winning platform to promote and conduct challenge and prize competitions Governmentwide. Challenge.gov seeks to involve more Americans in the work of Government. Eighty contests were hosted in fiscal year 2013, covering a wide range of technical and creative challenges. For instance, the Federal Trade Commission (FTC) hosted a robocall challenge, which asked innovators to create solutions to block illegal robocalls on landline or mobile phones. The FTC received nearly 800 entries and selected two winners in a tie for the best overall solution. One winning solution, Nomorobo, went to market on September 30, 2013, and has blocked nearly 1.3 million calls for consumers.

GSA also is leading efforts to open Government data to entrepreneurs and other innovators to fuel development of products and services that drive economic growth. GSA operates Data.gov, the flagship open Government portal, which enables easy access to and use of more than 90,000 data collections from over 180 Government agencies. By facilitating information transparency and access, GSA allows anyone, whether an individual or a business, to take public information and apply it in new and useful ways. A snapshot of the power of open data can be seen on Data.gov/Impact, which provides a list of companies leveraging open Government data to power the economy.

GSA is also committed to helping agencies through smarter delivery of IT projects. In collaboration with White House Office of Science and Technology Policy, GSA manages the Presidential Innovation Fellows (PIF) program. The PIF program recruits and sources some of our Nation’s brightest individuals to specific agencies and challenges them to implement solutions that save money and make the Federal Government work better for the American people. The program is set up to deliver results in months, not years, and has already demonstrated its value through solutions like the United States Agency for International Development’s (USAID’s) Better Than Cash and the Department of Veterans Affairs’ (VA’s) Blue Button.

Building on this approach, and in coordination with the Digital Service at the Office of Management and Budget (OMB), GSA recently announced the creation of 18F— a digital delivery team within GSA that aims to make the Government’s digital and Web services simple, effective, and easier to use for the American people. By using lessons from our Nation’s top technology startups, these public service innovators are looking to provide support for our Federal partners in delivering better digital services at reduced time and cost. 18F is structured to develop in an agile manner, building prototypes rapidly and putting them in the hands of users for feedback; measure success not in terms of completion of a system, but through customer use; build core capacity so that the Government can build and deliver technology solutions; and scale what works iteratively.

18F is already engaged in various initiatives to improve services GSA provides to our constituents. As an example, the 18F team helped develop a new, innovative tool called FBOpen (fbopen.gsa.gov) that allows small and innovative businesses to quickly access Federal contracting and grant opportunities by using simple search queries. This open source search tool makes it easier for small businesses and less traditional Federal contractors to better find and bid on Government opportunities, while increasing competition and delivering a simpler way to find all of the opportunities the Federal Government makes available. By pairing innovative technologists with agency procurement experts and reaching out to small businesses to understand their needs, GSA was able to successfully test (and deploy) a viable product in less than 6 months. FBOpen is just one example of how use of smarter IT practices can shorten the time to value, whether work is performed by Federal employees, contractors, or both.

CONCLUSION

GSA's internal IT reforms, acquisition solutions, and digital services are in keeping with our mission to deliver the best value in information technology solutions to Government and the American people. GSA still has a lot of work ahead of us, and I appreciate the subcommittee's support of our reform efforts.

I appreciate the opportunity to appear before you today and I am happy to answer any questions you have. Thank you.

Senator UDALL. Thank you for your testimony.

And now, Director Archuleta, I would like you to present your remarks on the half of the Office of Personnel Management.

STATEMENT OF HON. KATHERINE ARCHULETA, DIRECTOR, OFFICE OF PERSONNEL MANAGEMENT

Ms. ARCHULETA. Thank you, Chairman Udall, Ranking Member Johanns, and Chairwoman Mikulski for inviting me to participate in today's hearing on the oversight of the information technology investments and to testify on the issues facing the Federal IT workforce.

As director of the Office of Personnel Management, one of my goals is to build an engaged, inclusive, diverse, and well-trained workforce, not only for today's needs, but also for the future.

In order to meet their missions, Federal agencies must have the tools to attract, develop, and keep top talent from all segments of society. To accomplish this, the Office of Personnel Management (OPM) is partnering with agencies to help address Government-wide and agency-specific recruitment, training, and retention needs in areas where skills are in high demand.

The development and proper deployment of IT will require fast thinking and intelligent minds at the helm in order to tap into the vast potential for the skillful harnessing of cyber's possibilities.

The demand for cyber skills is real. The Bureau of Labor Statistics has projected that computer occupations will grow by 18 percent from 2012 to 2022, while all other occupations will grow by 11 percent.

This is why OPM supports the Governmentwide development of qualified Federal cyber personnel through workforce planning, recruitment, training and development, and other initiatives.

OPM is the lead agency to meet to the OMB cross-agency priority goal to close critical skills gaps in the Federal workforce. We have partnered with relevant interagency councils and working groups and to design the most effective strategies to address cyber workforce needs.

OPM realizes that agencies may need to take advantage of existing flexibilities to meet their hiring needs. We have collaborated with the CIO Council to ensure a broad understanding of the various hiring and pay authorities available to attract and bring on board needed talent.

OPM has also helped agencies cut down the time it takes to hire, from the posting of a vacancy announcement to bringing employees on board.

OPM is committed to ensuring that agencies are aware of the services we can offer in the crafting of job opportunity announcements in a way that gets them to the best possible candidates. With well-written job opportunity announcements, agencies can

find superior candidates for a position and fill that post as quickly as possible.

Agencies have a number of existing pay and leave flexibilities at their disposal that can be used to recruit and retain cyber personnel. This includes recruitment and retention incentives, enhanced annual leave accrual rates, student loan repayments, as well as general workplace flexibilities.

In addition, OPM is ready to work with agencies to consider providing special rates or critical position pay.

Further, three initiatives have been identified as possible positive courses of forward action. The first is the establishment of a cross-Government talent exchange program called GovConnect. GovConnect will help all agencies test and scale talent exchange programs. It would enable employees to find project-based rotational assignments and enable managers to reach into the broader Federal workforce to fill critical needs.

Second, OPM is working on a learning and development resource exchange called GovU. GovU would be a collaborative model for the sharing of training and development resources across the Federal Government.

Finally, training and development resources are critical tools in employee growth. OPM will continue to work with agencies and other stakeholders to utilize existing recruitment and retention tools, and explore whether additional flexibilities are warranted. These efforts will help ensure that we build and develop a Federal IT workforce that is engaged, inclusive, and high-performing in order to meet the changing challenges of today and tomorrow.

PREPARED STATEMENT

Thank you for inviting me here today, and I am happy to answer any questions you may have.

[The statement follows:]

PREPARED STATEMENT OF HON. KATHERINE ARCHULETA

Thank you for inviting me to participate in today's hearing regarding oversight of information technology (IT) investments, and to testify on issues facing the Federal IT workforce. I am happy to be here with you today.

As Director of the Office of Personnel Management (OPM), one of my goals is to build an engaged, inclusive, diverse, and well-trained workforce, not only for today's needs but also for the future. In order to meet their missions, Federal agencies must have the tools to attract, develop, and keep top talent, from all segments of society. To this end, OPM is partnering with agencies to help address Governmentwide and agency-specific recruitment, training, and retention needs in areas where skills are in high demand.

Anticipating cyber workforce needs and ensuring that the Federal Government is prepared to meet those needs is an important goal for OPM. The development and proper deployment of cyber will require fast-thinking, intelligent minds at the helm in order to tap into the vast potential for the skillful harnessing of cyber's possibilities. The demand for cyber skills is real—the Bureau of Labor Statistics projects that computer occupations will grow by 18 percent between 2012–2022, while all other occupations will grow by 11 percent. This is why OPM supports the Governmentwide development of qualified Federal cyber personnel through workforce planning, recruitment, training and development and other initiatives. This development is informed by routine data analysis that OPM conducts to assess the needs arising out of the Federal cyber workforce, as well as agency progress toward meeting cyber workforce targets. In addition, OPM has launched the first-ever complete inventory of all cyber positions in the Federal Government, to be housed in our Enterprise Human Resources Information (EHRI) system. Agencies are currently working to populate this database with a designation code for all positions that conduct work

related to cybersecurity. Through the EHRI data set, OPM and agencies will have clearer visibility on current and projected cyber workforce needs.

OPM is the lead agency to meet the Office of Management and Budget's (OMB's) Cross Agency Priority Goal to close critical skills gaps in the Federal workforce, and has partnered with relevant interagency councils and working groups to design the most effective strategies to address cyber workforce needs. Further, OPM, in our continued support of the White House's 25 Point Implementation Plan To Reform Federal IT Management, has developed the IT Program Management Career Path Guide and recommended training curriculum for the newly established IT Program Management job title. OPM worked closely with the Chief Information Officers (CIO) Council and OMB on this project. The final product provides guidance to Federal agencies on the creation and improvement of the IT Program Management career path at each agency.

OPM continues to support the National Science Foundation's administration of the CyberCorps Scholarship for Service (SFS) program. The SFS program awards scholarships to students pursuing a degree in cybersecurity. In exchange for the scholarship, students agree to work for the Government in a cybersecurity position. OPM provides program guidance, monitors student progress, hosts virtual career fairs, participates in the planning and execution of live job fairs, and markets the SFS program to students and Federal agencies. In January 2014, the annual job fair attracted more than 400 students, who had the opportunity to network with recruitment representatives from over 40 Federal agencies. Since 2002, more than 1,500 students have graduated and gone to work for over 130 different agencies and sub-agencies in a variety of occupations such as IT management, computer scientist, and computer engineer.

OPM realizes that agencies may need to take advantage of existing flexibilities to meet their hiring needs. To this end, OPM has partnered with the CIO Council to ensure there is a broad understanding of the various hiring and pay authorities available to attract and hire the talent needed. Over the years, OPM has provided agencies with a number of expedited hiring authorities where suitable justification has been given. This includes Governmentwide Direct-Hire Authority for cybersecurity professionals, at grade 9 and above, in the Information Technology Management series (Information Security). OPM has also helped agencies cut down on the timeline of an average hire from the posting of a vacancy announcement to bringing employees on board. OPM is also committed to ensuring that agencies are aware of the services OPM can offer in crafting job opportunity announcements in a manner that nets them the best possible candidates. OPM, through both our public policy function and our reimbursable services offered via USA Staffing, can help agencies develop and post clear and attractive job opportunity announcements. With well written job opportunity announcements, agencies can both find superior candidates for the job and achieve quick, timely hiring. We recommend that agencies take advantage of OPM's expertise as a resource when beginning their candidate search.

Agencies have a number of existing pay and leave flexibilities at their disposal that can be used to recruit and retain cyber personnel. This includes the ability to set pay above the minimum rate for newly hired cyber employees with superior qualifications or who are filling a special agency need; recruitment and retention incentives; enhanced annual leave accrual rate; student loan repayments; as well as general workplace flexibilities including telework and alternative work schedules. In addition, OPM is ready to work with agencies to consider providing special rates or critical position pay. Special rates are intended to address significant or likely significant agency handicaps in recruiting or retaining qualified employees. Similarly, the critical position pay authority requires individuals to possess an extremely high level of expertise in scientific or technical fields. Agencies must show that a position being considered for higher compensation under critical position pay is critical to the agency's successful accomplishment of an important mission. Further, the critical position pay authority may only be used to the extent necessary to recruit or retain an individual exceptionally well qualified for the position.

Overall, OPM is supporting the development of Governmentwide enterprise training and resource exchanges across agencies as called for in the President's fiscal year 2015 budget. For example, OPM will develop university partnerships that increase access for Federal employees to affordable education and training that is targeted to the Federal Government's priority skills needs, such as science, technology, engineering, and mathematics. These partnerships will enable Federal occupational and human resources leaders to work with post-secondary institutions to target curriculum to emerging skills needs in the Federal Government.

Working with agencies to address their cyber workforce needs requires anticipating workforce challenges and creating a culture of excellence and engagement to

enable higher performance. To this end, three initiatives have been identified as possible positive courses of action. While each of these initiatives can apply outside of the cyber workforce, each can appropriately be used to address agencies' cyber workforce needs. We are still in the vetting stage, but we think these ideas have promise.

The first idea is the establishment of a cross-Government talent exchange program called GovConnect. GovConnect would be designed to help all agencies test and scale talent exchange programs and enable employees to find project-based rotational assignments and enable managers to reach into the broader Federal workforce to fill critical skills needs. GovConnect would seek to create a more mobile and agile workforce through communities of practice that can share ideas and solutions with each other through online networking.

Secondly, OPM is working on a reimbursable learning and development resource exchange called GovU. GovU would be modeled off OPM's Human Resources University (HRU). HRU has, at its core, a collaborative model for the sharing of training and development resources across the Federal Government. OPM hopes to continue in this model with GovU by enabling agencies to share training and development resources to meet common needs. To facilitate this, OPM is collaborating with the Chief Human Capital Officers' Council and the Chief Learning Officers' Council to create an operational project plan.

Finally, training and development resources are critical tools in employee growth, and OPM is reviewing these resources to ensure they are consistently excellent and easily accessible Governmentwide. Further, through increased training and development comes greater accountability from and higher performance expectations for Federal employees. As capabilities and credibility are enhanced, efforts are needed to incorporate continuous improvement in the education opportunities and tools available to Federal employees.

OPM will continue to work with agencies, and with our labor partners, and other stakeholders to utilize existing recruitment and retention tools and to explore whether additional flexibilities are warranted to address IT workforce needs. OPM will continue to help agencies enhance the management and performance of their workforce by sharing best practices and leadership development resources. These efforts will help ensure that we build and develop a Federal IT workforce that is engaged, inclusive, and high performing in order to meet the challenges of both today and tomorrow.

Thank you for inviting me here today, and I am happy to address any questions you may have.

Senator UDALL. Thank you very much for your testimony.

Mr. Powner, I now invite you to present your remarks on behalf of the GAO.

STATEMENT OF HON. DAVID POWNER, DIRECTOR, INFORMATION TECHNOLOGY ISSUES, GOVERNMENT ACCOUNTABILITY OFFICE

Mr. POWNER. Chairman Udall, Ranking Member Johanns, Chairwoman Mikulski, we appreciate the opportunity to testify on how the Federal Government can better manage its annual \$80 billion investment in information technology. Of this \$80 billion, three-quarters is spent on operational or legacy systems while the remaining goes toward new development. Therefore, it is vitally important that new systems acquisitions are managed and governed effectively, and that the Federal Government finds more efficient ways to deliver existing services.

Over the past 5 years, OMB has initiated excellent efforts to do just that. This morning, I would like to highlight four significant initiatives, the IT Dashboard, TechStat sessions, data center consolidation, and PortfolioStat. For each, I will highlight accomplishments to date, but also what needs to be done to get even more out of these initiatives.

INFORMATION TECHNOLOGY DASHBOARD

Starting with the Dashboard, the IT Dashboard was put in place to highlight the status and CIO assessments of approximately 750 major IT investments across 27 departments. This public dissemination of each project's status is intended to allow OMB and the Congress to hold agencies accountable for results and performance.

The accuracy of the information on the Dashboard has improved over time with certain agencies reporting more accurately than others.

Here is what the Dashboard tells us: As this chart indicates, of the 750 major investments, 560 are in green status, 116 are in yellow, and 40 are in red.

So we have about 200 projects, Mr. Chairman, that you mentioned that total about \$12 billion that are at risk and need attention.

Only eight agencies report red or high-risk projects. Nineteen agencies do not have high-risk projects, according to the Dashboard, including the Department of Defense (DOD), the Department of the Treasury, OPM, and GSA.

Senator MIKULSKI. Did you say they don't?

Mr. POWNER. They do not. So if you go to the Dashboard right now, DOD does not have any reds listed.

Mr. Chairman, there are three things that need to happen to make the Dashboard a better accountability mechanism.

One, all major investments need to be listed on the Dashboard. Our work has shown that several investments, like the Department of Energy's (DOE's) supercomputers, are not listed on the Dashboard.

Two, ratings need to be even more accurately reported. There are clearly more than 200 projects that are high- or medium-risk.

And then three, OMB and agencies need to aggressively govern the at-risk investments using TechStat sessions.

OMB TECHSTAT MEETINGS

TechStat sessions are OMB meetings initiated in 2010 to turn around troubled IT investments that were failing or not producing results. OMB held about 80 of these meetings and had great results. That included scaling back projects and even terminating failing projects.

OMB subsequently empowered CIOs to hold their own TechStat sessions within their respective agencies, a move we agree with, but we also strongly think that OMB should hold TechStat sessions on a selective basis for high-risk or troubled projects and for projects that are top national priorities.

OMB recently told us that they held two TechStat sessions in 2013. Clearly, this is not enough.

DATA CENTER CONSOLIDATION

Now turning to how we better manage operational systems, OMB started a data center consolidation effort in 2010 to address the Government's low server utilization rates, estimated between 10 and 15 percent, far from the industry standard of 60 percent.

This effort was also to result in \$3 billion in savings across all the departments. Our ongoing work shows that there are currently 7,500 data centers, about 750 of those have been consolidated or closed to date. There are over \$1.3 billion in savings that have resulted from this, and agencies estimate another \$3 billion in savings in fiscal years 2014 and 2015. Therefore, expected savings through fiscal year 2015 should be around \$4.5 billion. Better transparency on the savings is needed, in our opinion.

PORTFOLIOSTAT INITIATIVE

I would like to commend the subcommittee for requiring this quarterly report from OMB on IT reform savings. OMB recently expanded the data center consolidation effort into a larger initiative called PortfolioStat to eliminate additional duplicative spending of administrative and business systems. In its quarterly report to this committee, OMB reports they have achieved \$1.9 billion in savings through this initiative through 2013, and that the target is \$2.5 billion. The target should be much higher.

Based on our work, there are over 200 PortfolioStat initiatives that agencies are working on to eliminate at least \$5.5 billion in duplicative spending. It is critical that these 200 initiatives are driven to closure so that the \$5 billion in savings can be achieved.

In summary, Mr. Chairman, the tremendous transparency that the Dashboard provides needs to be even more effectively used to lessen risk and failures on large IT acquisitions, and both the data center consolidation and PortfolioStat processes need to build off their initial successes to achieve savings that collectively tally about \$10 billion.

PREPARED STATEMENT

Thank you for your oversight of these important issues, and we look forward to working with you further.

[The statement follows:]

PREPARED STATEMENT OF HON. DAVID POWNER

Chairman Udall, Ranking Member Johanns, and members of the subcommittee, I am pleased to be here today to discuss how best practices and major information technology (IT) reform initiatives can help the Federal Government better acquire and manage IT investments. As reported to the Office of Management and Budget (OMB), Federal agencies plan to spend at least \$82 billion on IT in fiscal year 2014. Given the scale of such planned outlays and the criticality of many of these systems to the health, economy, and security of the Nation, it is important that OMB and Federal agencies provide appropriate oversight and transparency into these programs and avoid duplicative investments, whenever possible, to ensure the most efficient use of resources.

However, as we have previously reported and testified, Federal IT projects too frequently fail and incur cost overruns and schedule slippages while contributing little to mission-related outcomes.¹ During the past several years, we have issued multiple reports and testimonies on best practices for major acquisitions and Federal

¹See, for example, Government Accountability Office (GAO), Information Technology: OMB and Agencies Need To More Effectively Implement Major Initiatives To Save Billions of Dollars, GAO-13-796T (Washington, DC: July 25, 2013); Secure Border Initiative: DHS Needs To Reconsider Its Proposed Investment in Key Technology Program, GAO-10-340 (Washington, DC: May 5, 2010); and Polar-Orbiting Environmental Satellites: With Costs Increasing and Data Continuity at Risk, Improvements Needed in Tri-agency Decision Making, GAO-09-564 (Washington, DC: June 17, 2009).

initiatives to acquire and improve the management of IT investments.² In those reports, we made numerous recommendations to Federal agencies and OMB to further enhance the management and oversight of IT programs.

As discussed with subcommittee staff, I am testifying today on the results and recommendations from our selected reports on how best practices and IT reform initiatives can help Federal agencies better manage major acquisitions and legacy investments. All work on which this testimony is based was performed in accordance with generally accepted Government auditing standards or all sections of the Government Accountability Office's (GAO's) Quality Assurance Framework that were relevant to our objectives. Those standards and the framework require that we plan and perform our audits and engagements to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives; the framework also requires that we discuss any limitations in our work. We believe that the information, data, and evidence obtained and the analysis conducted provide a reasonable basis for our findings and conclusions based on our objectives. A more detailed discussion of the objectives, scope, and methodology of this work is included in each of the reports on which this testimony is based.³

BACKGROUND

Information technology should enable Government to better serve the American people. However, despite spending hundreds of billions on IT since 2000, the Federal Government has experienced failed IT projects and has achieved little of the productivity improvements that private industry has realized from IT. Too often, Federal IT projects run over budget, behind schedule, or fail to deliver results. In combating this problem, proper oversight is critical.

Both OMB and Federal agencies have key roles and responsibilities for overseeing IT investment management and OMB is responsible for working with agencies to ensure investments are appropriately planned and justified. However, as we have described in numerous reports,⁴ although a variety of best practices exist to guide their successful acquisition, Federal IT projects too frequently incur cost overruns and schedule slippages while contributing little to mission-related outcomes.

Agencies have reported that poor-performing projects have often used a "big bang" approach—that is, projects that are broadly scoped and aim to deliver capability several years after initiation. For example, in 2009 the Defense Science Board reported that the Department of Defense's (Defense's) acquisition process for IT sys-

²See, for example, GAO, Information Technology: Leveraging Best Practices To Help Ensure Successful Major Acquisitions, GAO-14-183T (Washington, DC: Nov. 13, 2013); Information Technology: Additional Executive Review Sessions Needed To Address Troubled Projects, GAO-13-524 (Washington, DC: June 13, 2013); Data Center Consolidation: Strengthened Oversight Needed To Achieve Billions of Dollars in Savings, GAO-13-627T (Washington, DC: May 14, 2013); Data Center Consolidation: Strengthened Oversight Needed To Achieve Cost Savings Goal, GAO-13-378 (Washington, DC: Apr. 23, 2013); Information Technology Dashboard: Opportunities Exist To Improve Transparency and Oversight of Investment Risk at Select Agencies, GAO-13-98 (Washington, DC: Oct. 16, 2012); Data Center Consolidation: Agencies Making Progress on Efforts, but Inventories and Plans Need To Be Completed, GAO-12-742 (Washington, DC: July 19, 2012); Information Technology: Critical Factors Underlying Successful Major Acquisitions, GAO-12-7 (Washington, DC: Oct. 21, 2011); Information Technology: Continued Attention Needed To Accurately Report Federal Spending and Improve Management, GAO-11-831T (Washington, DC: July 14, 2011); and Information Technology: Investment Oversight and Management Have Improved but Continued Attention Is Needed, GAO-11-454T (Washington, DC: Mar. 17, 2011).

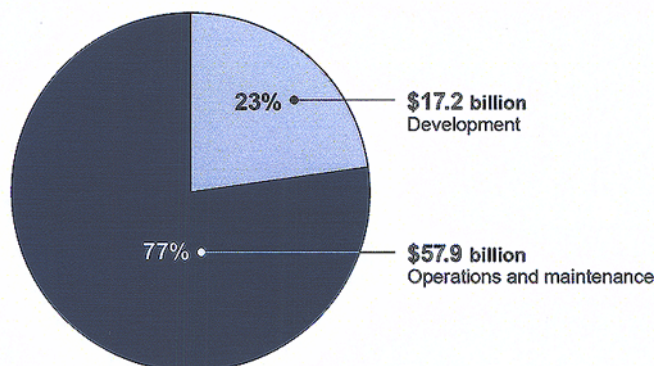
³GAO, Information Technology: Additional OMB and Agency Actions are Needed To Achieve Portfolio Savings, GAO-14-65 (Washington, DC: Nov. 6, 2013); IT Dashboard: Agencies Are Managing Investment Risk, but Related Ratings Need To Be More Accurate and Available, GAO-14-64 (Washington, DC: Dec. 12, 2014); GAO-13-524; GAO-13-378; GAO-13-98; GAO-12-742; Information Technology Reform: Progress Made; More Needs To Be Done To Complete Actions and Measure Results, GAO-12-461 (Washington, DC: Apr. 26, 2012); IT Dashboard: Accuracy Has Improved, and Additional Efforts Are Under Way To Better Inform Decision Making, GAO-12-210 (Washington, DC: Nov. 7, 2011); GAO-12-7; Data Center Consolidation: Agencies Need To Complete Inventories and Plans To Achieve Expected Savings, GAO-11-565 (Washington, DC: July 19, 2011); Information Technology: OMB Has Made Improvements to Its Dashboard, but Further Work Is Needed by Agencies and OMB To Ensure Data Accuracy, GAO-11-262 (Washington, DC: Mar. 15, 2011); and Information Technology: OMB's Dashboard Has Increased Transparency and Oversight, but Improvements Needed, GAO-10-701 (Washington, DC: July 16, 2010).

⁴See, for example, GAO, FEMA: Action Needed To Improve Administration of the National Flood Insurance Program, GAO-11-297 (Washington, DC: June 9, 2011); GAO-10-340; Secure Border Initiative: DHS Needs To Address Testing and Performance Limitations That Place Key Technology Program at Risk, GAO-10-158 (Washington, DC: Jan. 29, 2010); and GAO-09-564.

tems was too long, ineffective, and did not accommodate the rapid evolution of IT.⁵ The board reported that the average time to deliver an initial program capability for a major IT system acquisition at Defense was over 7 years.

Each year, OMB and Federal agencies work together to determine how much the Government plans to spend on IT projects and how these funds are to be allocated. As reported to OMB, Federal agencies plan to spend more than \$82 billion on IT investments in fiscal year 2014, which is the total expended for not only acquiring such investments, but also the funding to operate and maintain them. Of the reported amount, 26 Federal agencies⁶ plan to spend about \$75 billion, \$17 billion on development and acquisition and \$58 billion on operations and maintenance (O&M).⁷ Figure 1 shows the percentages of total planned spending for 2014 for the \$75 billion spent on development and O&M.

Figure 1: Percentages of Planned IT Spending for Fiscal Year 2014



Source: GAO analysis of OMB data.

However, this \$75 billion does not reflect the spending of the entire Federal Government. We have previously reported that OMB's figure understates the total amount spent in IT investments.⁸ Specifically, it does not include IT investments by 58 independent executive branch agencies, including the Central Intelligence Agency, or by the legislative or judicial branches. Further, agencies differed on what they considered an IT investment; for example, some have considered research and development systems as IT investments, while others have not. As a result, not all IT investments are included in the Federal Government's estimate of annual IT spending. OMB provided guidance to agencies on how to report on their IT investments, but this guidance did not ensure complete reporting or facilitate the identification of duplicative investments. Consequently, we recommended, among other things, that OMB improve its guidance to agencies on identifying and categorizing IT investments.

Further, over the past several years, we have reported that overlap and fragmentation among Government programs or activities could be harbingers of unnecessary duplication.⁹ Thus, the reduction or elimination of duplication, overlap, or

⁵Defense Science Board, Report of the Defense Science Board Task Force on Department of Defense Policies and Procedures for the Acquisition of Information Technology (Washington, DC: March 2009).

⁶The 26 agencies are the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, Interior, Justice, Labor, State, Transportation, the Treasury, and Veterans Affairs; Environmental Protection Agency, General Services Administration, National Aeronautics and Space Administration, National Archives and Records Administration, National Science Foundation, Nuclear Regulatory Commission, Office of Personnel Management, Small Business Administration, Smithsonian Institution, Social Security Administration, and U.S. Agency for International Development.

⁷According to the analytical perspectives associated with the President's fiscal year 2014 budget, the remainder is comprised of classified Department of Defense (DOD) IT investments.

⁸GAO, Information Technology: OMB Needs To Improve Its Guidance on IT Investments, GAO-11-826 (Washington, DC: Sept. 29, 2011).

⁹GAO, 2013 Annual Report: Actions Needed To Reduce Fragmentation, Overlap, and Duplication and Achieve Other Financial Benefits, GAO-13-279SP (Washington, DC: Apr. 9, 2013); 2012 Annual Report: Opportunities To Reduce Duplication, Overlap and Fragmentation, Achieve

Continued

fragmentation could potentially save billions of tax dollars annually and help agencies provide more efficient and effective services.

OMB HAS LAUNCHED MAJOR INITIATIVES FOR OVERSEEING INVESTMENTS

OMB has implemented a series of initiatives to improve the oversight of underperforming investments, more effectively manage IT, and address duplicative investments. These efforts include the following:

—*IT Dashboard*.—Given the importance of transparency, oversight, and management of the Government’s IT investments, in June 2009, OMB established a public Web site, referred to as the IT Dashboard, that provides detailed information on 760 major IT investments at 27 Federal agencies, including ratings of their performance against cost and schedule targets. The public dissemination of this information is intended to allow OMB; other oversight bodies, including Congress; and the general public to hold agencies accountable for results and performance. Among other things, agencies are to submit Chief Information Officer (CIO) ratings, which, according to OMB’s instructions, should reflect the level of risk facing an investment on a scale from 1 (high risk) to 5 (low risk) relative to that investment’s ability to accomplish its goals. Ultimately, CIO ratings are assigned colors for presentation on the Dashboard, according to the five-point rating scale, as illustrated in table 1.

TABLE 1—IT DASHBOARD CIO RATING COLORS, BASED ON A FIVE-POINT SCALE FOR CIO RATINGS

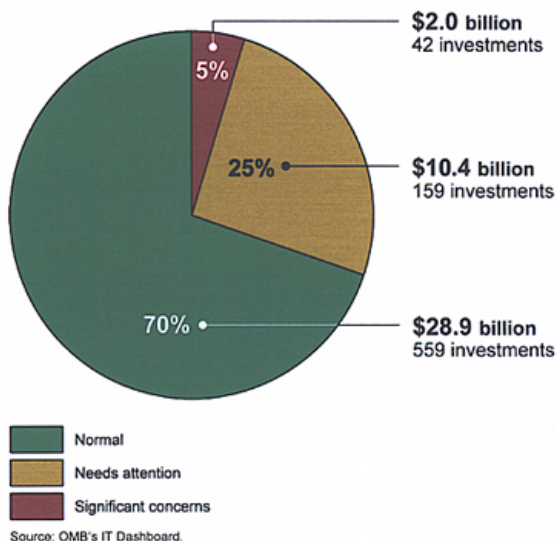
Rating (by agency CIO)	Color
1—High risk	Red
2—Moderately high risk	Red
3—Medium risk	Yellow
4—Moderately low risk	Green
5—Low risk	Green

Source: OMB’s IT Dashboard.

As of April 2014, according to the IT Dashboard, 201 of the Federal Government’s 760 major IT investments—totaling \$12.4 billion—were in need of management attention (rated “yellow” to indicate the need for attention or “red” to indicate significant concerns). (See figure 2.)

Savings, and Enhance Revenue, GAO–12–342SP (Washington, DC: Feb. 28, 2012); and Opportunities To Reduce Potential Duplication in Government Programs, Save Tax Dollars, and Enhance Revenue, GAO–11–318SP (Washington, DC: Mar. 1, 2011).

Figure 2: Overall Performance Ratings of Major Investments on the IT Dashboard, as of April 2014



—*TechStat Reviews*.—In January 2010, the Federal CIO began leading TechStat sessions—face-to-face meetings to terminate or turnaround IT investments that are failing or are not producing results. These meetings involve OMB and agency leadership and are intended to increase accountability and transparency and improve performance. Subsequently, OMB empowered agency CIOs to hold their own TechStat sessions within their respective agencies. According to the former Federal CIO, the efforts of OMB and Federal agencies to improve management and oversight of IT investments have resulted in almost \$4 billion in savings.

—*Federal Data Center Consolidation Initiative*.—Concerned about the growing number of Federal data centers, in February 2010 the Federal CIO established the Federal Data Center Consolidation Initiative. This initiative's four high-level goals are to promote the use of "green IT"¹⁰ by reducing the overall energy and real estate footprint of Government data centers; reduce the cost of data center hardware, software, and operations; increase the overall IT security posture of the Government; and shift IT investments to more efficient computing platforms and technologies. OMB believes that this initiative has the potential to provide about \$3 billion in savings by the end of 2015.

—*PortfolioStat*.—In order to eliminate duplication, move to shared services, and improve portfolio management processes, in March 2012, OMB launched the PortfolioStat initiative. Specifically, PortfolioStat requires agencies to conduct an annual agency-wide IT portfolio review to, among other things, reduce commodity IT¹¹ spending and demonstrate how their IT investments align with the agency's mission and business functions.¹² PortfolioStat is designed to assist agencies in assessing the current maturity of their IT investment management process, making decisions on eliminating duplicative investments, and moving to shared solutions in order to maximize the return on IT investments across

¹⁰"Green IT" refers to environmentally sound computing practices that can include a variety of efforts, such as using energy efficient data centers, purchasing computers that meet certain environmental standards, and recycling obsolete electronics.

¹¹According to OMB, commodity IT includes services such as enterprise IT systems (e-mail; identity and access management; IT security; Web hosting, infrastructure, and content; and collaboration tools); IT infrastructure (desktop systems, mainframes and servers, mobile devices, and telecommunications); and business systems (financial management, grants-related Federal financial assistance, grants-related transfer to State and local governments, and human resources management systems).

¹²OMB, Implementing PortfolioStat, Memorandum, M-12-10 (Washington DC: Mar. 30, 2012).

the portfolio. OMB believes that the PortfolioStat effort has the potential to save the Government \$2.5 billion over the next 3 years by, for example, consolidating duplicative systems.

OPPORTUNITIES EXIST TO IMPROVE ACQUISITION AND MANAGEMENT OF IT INVESTMENTS

Given the magnitude of the Federal Government's annual IT budget, which is expected to be more than \$82 billion in fiscal year 2014, it is important that agencies leverage all available opportunities to ensure that their IT investments are acquired in the most effective manner possible. To do so, agencies can rely on IT acquisition best practices and initiatives such as OMB's IT Dashboard, and OMB-mandated TechStat sessions. Additionally, agencies can save billions of dollars by continuing to consolidate Federal data centers and by eliminating duplicative investments through OMB's PortfolioStat initiative.

Best Practices Are Intended To Help Ensure Successful Major Acquisitions

In 2011, we identified seven successful acquisitions and nine common factors critical to their success, and noted that the factors support OMB's objective of improving the management of (1) large-scale IT acquisitions across the Federal Government, and (2) wide dissemination of these factors could complement OMB's efforts.¹³ Specifically, we reported that Federal agency officials identified seven successful acquisitions, in that they best achieved their respective cost, schedule, scope, and performance goals.¹⁴ Notably, all of these were smaller increments, phases, or releases of larger projects. The common factors critical to the success of three or more of the seven acquisitions are generally consistent with those developed by private industry and are identified in the following list of common critical success factors:

- Program officials were actively engaged with stakeholders.
 - Program staff had the necessary knowledge and skills.
 - Senior department and agency executives supported the programs.
 - End users and stakeholders were involved in the development of requirements.
 - End users participated in testing of system functionality prior to formal end user acceptance testing.
 - Government and contractor staff were consistent and stable.
 - Program staff prioritized requirements.
 - Program officials maintained regular communication with the prime contractor.
 - Programs received sufficient funding.
- (Source: GAO analysis of agency data.)

These critical factors support OMB's objective of improving the management of large-scale IT acquisitions across the Federal Government; wide dissemination of these factors could complement OMB's efforts.

IT Dashboard Can Improve the Transparency into and Oversight of Major IT Investments

The IT Dashboard serves an important role in allowing OMB and other oversight bodies to hold agencies accountable for results and performance. However, we have issued a series of reports highlighting deficiencies with the accuracy and reliability of the data reported on the Dashboard.¹⁵ For example, we reported in October 2012 that Defense had not rated any of its investments as either high or moderately high risk and that in selected cases, these ratings did not appropriately reflect significant cost, schedule, and performance issues reported by GAO and others. We recommended that Defense ensure that its CIO ratings reflect available investment performance assessments and its risk management guidance. Defense concurred and has revised its process to address these concerns.

Further, while we reported in 2011 that the accuracy of Dashboard cost and schedule data had improved over time,¹⁶ more recently, in December 2013 we found that agencies had removed investments from the Dashboard by reclassifying their investments—representing a troubling trend toward decreased transparency and accountability.¹⁷ Specifically, the Department of Energy reclassified several of its

¹³GAO-12-7.

¹⁴The seven investments were (1) the Department of Commerce's Decennial Response Integration System, (2) Defense's Defense Global Combat Support System-Joint (Increment 7), (3) the Department of Energy's Manufacturing Operations Management Project, (4) the Department of Homeland Security's Western Hemisphere Travel Initiative, (5) the Department of Transportation's Integrated Terminal Weather System, (6) the Internal Revenue Service's Customer Account Data Engine 2, and (7) the Veterans Affairs Occupational Health Recordkeeping System.

¹⁵GAO-14-64; GAO-13-98; GAO-12-210; GAO-11-262; and GAO-10-701.

¹⁶GAO-12-210.

¹⁷GAO-14-64.

supercomputer investments from IT to facilities and the Department of Commerce decided to reclassify its satellite ground system investments. Additionally, as of December 2013, the public version of the Dashboard was not updated for 15 of the previous 24 months because OMB does not revise it as the President's budget request is being created.

We also found that, while agencies experienced several issues with reporting the risk of their investments, such as technical problems and delayed updates to the Dashboard, the CIO ratings were mostly or completely consistent with investment risk at seven of the eight selected agencies.¹⁸ Additionally, the agencies had already addressed several of the discrepancies that we identified. The final agency, the Department of Veterans Affairs, did not update 7 of its 10 selected investments because it elected to build, rather than buy, the ability to automatically update the Dashboard, and has now resumed updating all investments. To their credit, agencies' continued attention to reporting the risk of their major IT investments supports the Dashboard's goal of providing transparency and oversight of Federal IT investments.

Nevertheless, the rating issues that we identified with performance reporting and annual baselining,¹⁹ some of which are now corrected, serve to highlight the need for agencies' continued attention to the timeliness and accuracy of submitted information, in order to allow the Dashboard to continue to fulfill its stated purpose. We recommended that agencies appropriately categorize IT investments and that OMB make Dashboard information available independent of the budget process. OMB neither agreed nor disagreed with these recommendations. Six agencies generally agreed with the report or had no comments and two others did not agree, believing their categorizations were appropriate. We continue to believe that our recommendations are valid.

TechStat Reviews Can Help Highlight and Evaluate Poorly Performing Investments

TechStat reviews were initiated by OMB to enable the Federal Government to turnaround, halt, or terminate IT projects that are failing or are not producing results. In 2013, we reported that OMB and selected agencies had held multiple TechStats, but that additional OMB oversight was needed to ensure that these meetings were having the appropriate impact on underperforming projects and that resulting cost savings were valid.²⁰ Specifically, we determined that as of April 2013, OMB reported conducting 79 TechStats, which focused on 55 investments at 23 Federal agencies. Further, four selected agencies—the Departments of Agriculture, Commerce, Health and Human Services (HHS), and Homeland Security (DHS)—conducted 37 TechStats covering 28 investments. About 70 percent of the OMB-led and 76 percent of agency-led TechStats on major investments were considered medium to high risk at the time of the TechStat.

However, the number of at-risk TechStats held was relatively small compared to the current number of medium- and high-risk major IT investments. Specifically, the OMB-led TechStats represented roughly 18.5 percent of the investments across the Government that had a medium- or high-risk CIO rating. For the four selected agencies, the number of TechStats represented about 33 percent of the investments that have a medium- or high-risk CIO rating. We concluded that until OMB and agencies develop plans to address these weaknesses, the investments would likely remain at risk.

In addition, we reported that OMB and selected agencies had tracked and reported positive results from TechStats, with most resulting in improved governance. Agencies also reported projects with accelerated delivery, reduced scope, or termination. We also found that OMB reported in 2011 that Federal agencies achieved almost \$4 billion in lifecycle cost savings as a result of TechStat sessions. However, we were unable to validate OMB's reported results because OMB did not provide artifacts showing that it ensured the results were valid. Among other things, we recommended that OMB require agencies to report on how they validated the outcomes. OMB generally agreed with this recommendation.

Continued Oversight Needed To Consolidate Federal Data Centers and Achieve Cost Savings

In an effort to consolidate the growing number of Federal data centers, in 2010, OMB launched a consolidation initiative intended to close 40 percent of Government

¹⁸The Departments of Agriculture, Commerce, Energy, Justice, Transportation, the Treasury, and Veterans Affairs; and the Social Security Administration.

¹⁹At times, a project's cost, schedule, and performance goals—known as its baseline—are modified to reflect changed development circumstances. These changes—called a rebaseline—can be done for valid reasons, but can also be used to mask cost overruns and schedule delays.

²⁰GAO-13-524.

data centers by 2015, and, in doing so, save \$3 billion. Since 2011, we have issued a series of reports on the efforts of agencies to consolidate their data centers.²¹ For example, in July 2011 and July 2012, we found that agencies had developed plans to consolidate data centers; however, these plans were incomplete and did not include best practices.²² In addition, although we reported that agencies had made progress on their data center closures, OMB had not determined initiative-wide cost savings, and oversight of the initiative was not being performed in all key areas. Among other things, we recommended that OMB track and report on key performance measures, such as cost savings to date, and improve the execution of important oversight responsibilities, and that agencies complete inventories and plans. OMB agreed with these two recommendations, and most agencies agreed with our recommendations to them.

Additionally, as part of ongoing follow-up work, we have determined that while agencies had closed data centers, the number of Federal data centers was significantly higher than previously estimated by OMB. Specifically, as of May 2013, agencies had reported closing 484 data centers by the end of April 2013, and were planning to close an additional 571 data centers—for a total of 1,055—by September 2014. However, as of July 2013, 22 of the 24 agencies participating in the initiative had collectively reported 6,836 data centers in their inventories—approximately 3,700 data centers more than OMB's previous estimate from December 2011. This dramatic increase in the count of data centers highlights the need for continued oversight of agencies' consolidation efforts.

Agencies' PortfolioStat Efforts Have the Potential To Save Billions of Dollars

OMB launched the PortfolioStat initiative in March 2012, which required 26 executive agencies to, among other things, reduce commodity IT spending and demonstrate how their IT investments align with the agency's mission and business functions.²³ In November 2013, we reported on agencies' efforts to complete key required PortfolioStat actions and make portfolio improvements.²⁴ We noted that all 26 agencies that were required to implement the PortfolioStat initiative took actions to address OMB's requirements. However, there were shortcomings in their implementation of selected requirements, such as addressing all required elements of an action plan to consolidate commodity IT, and migrating two commodity areas to a shared service by the end of 2012. In addition, several agencies had weaknesses in selected areas such as the CIO's authority to review and approve the entire portfolio, and ensuring a complete baseline of information relative to commodity IT. Further, we observed that OMB's estimate of about 100 consolidation opportunities and a potential \$2.5 billion in savings from the PortfolioStat initiative was understated because, among other things, it did not include estimates from Defense and the Department of Justice. Our analysis, which included these estimates, showed that, collectively, the 26 agencies reported about 200 opportunities and at least \$5.8 billion in potential savings through fiscal year 2015, at least \$3.3 billion more than the number initially reported by OMB.

In March 2013, OMB issued a memorandum commencing the second iteration of its PortfolioStat initiative.²⁵ This memorandum identified a number of improvements that should help strengthen IT portfolio management and address key issues we have identified. However, we concluded that selected OMB efforts could be strengthened to improve the PortfolioStat initiative and ensure agencies achieve identified cost savings, including addressing issues related to existing CIO authority at Federal agencies, and publicly reporting on agency-provided data. We recommended, among other things, that OMB require agencies to fully disclose limitations with respect to CIO authority. In addition, we made several recommendations to improve agencies' implementation of PortfolioStat requirements. OMB partially agreed with these recommendations, and responses from 20 of the agencies commenting on the report varied.²⁶

In summary, OMB's and agencies' recent efforts have resulted in greater transparency and oversight of Federal spending, but continued leadership and attention

²¹ GAO-13-378; GAO-12-742; and GAO-11-565.

²² GAO-12-742 and GAO-11-565.

²³ OMB, Implementing PortfolioStat, Memorandum M-12-10 (Washington, DC: Mar. 30, 2012).

²⁴ GAO-14-65.

²⁵ OMB, Memorandum for the Heads of Executive Departments and Agencies: Fiscal Year 2013 PortfolioStat Guidance: Strengthening Federal IT Portfolio Management, M-13-09 (Washington, DC: Mar. 27, 2013).

²⁶ Of the 20 agencies commenting on the report, 12 agreed with our recommendations directed to them, 4 disagreed or partially disagreed with our recommendations directed to them, and 4 provided additional clarifying information.

are necessary to build on the progress that has been made. The expanded use of the common factors critical to the successful management of large-scale IT acquisitions should result in more effective delivery of mission-critical systems. Additionally, Federal agencies need to continue to improve the accuracy and availability of information on the Dashboard to provide greater transparency and even more attention to the billions of dollars invested in troubled projects. Further, agencies should conduct additional TechStat reviews to focus management attention on troubled projects and establish clear action items to turn the projects around or terminate them.

The Federal Government can also build on the progress of agencies' data center closures and reduction in commodity IT. With the possibility of over \$5.8 billion in savings from the data center consolidation and PortfolioStat initiatives, agencies should continue to identify consolidation opportunities in both data centers and commodity IT. In addition, better support for the estimates of cost savings associated with the opportunities identified would increase the likelihood that these savings will be achieved.

Chairman Udall, Ranking Member Johanns, and members of the subcommittee, this completes my prepared statement. I would be pleased to respond to any questions that you may have at this time.

ATTACHMENT, HIGHLIGHTS OF GAO-14-568T

LEVERAGING BEST PRACTICES AND REFORM INITIATIVES CAN HELP AGENCIES BETTER MANAGE INVESTMENTS

Why GAO Did This Study

The Federal Government reportedly plans to spend at least \$82 billion on IT in fiscal year 2014. Given the scale of such planned outlays and the criticality of many of these systems to the health, economy, and security of the Nation, it is important that OMB and Federal agencies provide appropriate oversight and transparency into these programs and avoid duplicative investments, whenever possible, to ensure the most efficient use of resources.

GAO has previously reported and testified that Federal IT projects too frequently fail and incur cost overruns and schedule slippages while contributing little to mission-related outcomes. Numerous best practices and administration initiatives are available for agencies that can help them improve the oversight and management of IT acquisitions.

GAO is testifying today on the results and recommendations from selected reports that focused on how best practices and IT reform initiatives can help Federal agencies better manage major acquisitions and legacy investments.

What GAO Recommends

GAO has previously made numerous recommendations to OMB and Federal agencies on key aspects of IT acquisition management, as well as the oversight and management of these investments. In particular, GAO has made recommendations regarding the IT Dashboard, efforts to consolidate Federal data centers, and PortfolioStat.

What GAO Found

Information technology (IT) acquisition best practices have been developed by both industry and the Federal Government to help guide the successful acquisition of investments. For example, GAO recently reported on nine critical factors underlying successful major IT acquisitions. Factors cited included (1) program officials were actively engaged with stakeholders and (2) prioritized requirements.

One key IT reform initiative undertaken by the Office of Management and Budget (OMB) to improve transparency is a public Web site, referred to as the IT Dashboard, which provides information on 760 major investments at 27 Federal agencies, totaling almost \$41 billion. The Dashboard also includes ratings of investments risk on a scale from 1 (high risk) to 5 (low risk). As of April 2014, according to the Dashboard, 559 investments were low or moderately low risk (green), 159 were medium risk (yellow), and 42 were moderately high or high risk (red).

GAO has issued a series of reports on Dashboard accuracy and, in 2011, found that while there were continued issues with the accuracy and reliability of cost and schedule data, the accuracy of these data had improved over time. Further, a recent GAO report found that selected agencies' ratings were mostly or completely consistent with investment risk. However, this report also noted that agencies had removed major investments from the IT Dashboard, representing a troubling trend toward decreased transparency and accountability. Additionally, GAO reported that as of December 2013, the public version of the Dashboard was not updated for 15 of

the previous 24 months because OMB did not revise it as the President's budget request was being created. Consequently, GAO made recommendations to improve the Dashboard's accuracy, ensure that it includes all major IT investments, and increase its availability. Agencies generally agreed with the report or had no comments.

In an effort to consolidate the growing number of Federal data centers, OMB launched a consolidation initiative intended to close 40 percent of Government data centers by 2015, and in doing so, save \$3 billion. GAO reported that agencies planned to close 1,055 data centers by the end of fiscal year 2014, but also highlighted the need for continued oversight of these efforts. Among other things, GAO recommended that OMB improve the execution of important oversight responsibilities, with which OMB agreed.

To better manage the Government's existing IT systems, OMB launched the PortfolioStat initiative, which, among other things, requires agencies to conduct annual reviews of their IT investments and make decisions on eliminating duplication. GAO reported that agencies continued to identify duplicative spending as part of PortfolioStat and that this initiative has the potential to save at least \$5.8 billion by fiscal year 2015, but that weaknesses existed in agencies' implementation of the initiative's requirements. Among other things, GAO made several recommendations to improve agencies' implementation of PortfolioStat requirements. OMB partially agreed with these recommendations, and most of the other 20 agencies commenting on the report also agreed.

IT MANAGEMENT MODEL

Senator UDALL. Thank you very much, Mr. Powner, for your testimony.

Let me begin with the questioning here. GSA and OPM have either, and this is indicated in the testimony, moved or are moving to an IT management model that includes a more robust role for their agency CIOs. And the GAO has previously reported on ways the chief Federal information officers are impeded in their ability to manage or even monitor IT spending within their agencies.

And so I am very interested, since you are all moving down this road, how far have you gotten? What percentage of this have you done on consolidation? Are your CIOs empowered to drive down costs, which seems to be something the GAO has talked about over and over again? And are they enabled and empowered to create savings within the agencies? And where are they right now on this?

Mr. TANGHERLINI. I appreciate the question. And GSA, I would say that we are 90 percent down the road of consolidation, 100 percent down the road on the policy of consolidation around the CIO.

But I think that that is an approach that works particularly well for GSA, given our size and the nature of our mission.

As a result of integrating around a single CIO, we have been able to focus very intensely on finding the enterprise opportunities in each of our investments, and the numbers speak for themselves. In the fiscal year 2015 President's budget request, we are requesting an 18 percent lower budget than just 2 years before.

Again, though, I would say that that has been particularly appropriate and effective for GSA because of how we are sized. It may or may not be a model useful for other agencies, depending on how interrelated their functions are, are there similarities between what they do, and how do they deliver services.

Senator UDALL. And you have seen significant savings as a result of this, that you can identify?

Mr. TANGHERLINI. We think the savings comes from a number of areas. One, our cloud first policy, which is really focused around building off of a policy set by OMB, and Steve's leadership has

been incredibly important and helpful, has reduced the long-term cost of operating of other systems. Our data center consolidation efforts, again, led by OMB, supported by the great work of David Powner and the GAO, has also reduced our long-term operating costs.

For us, though, the next step in that evolution was really getting an enterprise sense of what our IT strategy and architecture is. And within GSA, we needed to have a single, accountable leader to deliver that.

Senator UDALL. Thank you.

IT STRATEGY

Director Archuleta, the same questions to you. Where are you at? What successes have you had? Have you seen concrete savings?

Ms. ARCHULETA. One of the first things I did, Senator, when I came into the position of director of OPM in November was in December to hire Donna Seymour as my CIO and to appoint a chief technology officer (CTO) for OPM.

Like Dan's description of what he has been able to accomplish at GSA, we may not be as far along, but I think we are on the right path.

We have completed in the first 100 days of my tenure an IT strategic plan that lays out six very important pillars that match very much what the CIO Council and the leadership, like Steve VanRoekel, have given to us.

First and foremost I put in place IT leadership and IT governance to determine how and where the decisions will be made for the IT infrastructure investments we will make.

All projects must meet the standards that both the leadership and the governance team have set forth, and they are all reviewed by the entire team.

Like Dan and other agencies throughout Government, we are looking at enterprise architecture, and realizing that the investments that we make throughout the enterprise have to take into consideration not only what the needs are, but the limited resources we have available.

For that reason, Donna and her team are not only focused on our immediate needs, but looking into the future, how we can make the right investments with the money that is available to us.

I am proud to say that she has taken important steps in leading this agency that did not have the leadership that it needed in IT. It was an issue during my confirmation, and I am pleased to report that we are making headway.

Senator UDALL. Great.

CIO BUDGET AUTHORITY

Mr. Powner, do you believe this concept of giving CIOs additional authority over their agency IT spending would improve oversight and achieve savings? And do you have any response to what the two witnesses have said?

Mr. POWNER. I think, clearly, the CIO authority is a big issue in the Federal Government. We saw, Steve and I have talked about this, even with the commodity IT. Many CIOs don't have authority

over all the commodity IT or the business and administrative systems.

Giving them certain budget authority sure would be a game changer, no doubt. That would clearly help. It probably would help attract a completely different type of CIO to the Federal Government, too. So clearly, budget authorities would help.

But we also, too, see certain agencies that have been very successful without budget authorities by establishing the right governance processes, in the organization that Dan was referring to, where we do see some appropriate governance in pockets in the Government.

I think IRS was mentioned earlier. They were the poster child for years, but this committee did a lot with spend plan reviews. You got the right people in there. They got the right governance. They turned it around. They are one of the better IT shops in the Government today.

Senator UDALL. Senator Johanns, would you like to proceed at this point?

Senator JOHANNNS. Thank you, Mr. Chairman.

Thank you all for being here and your efforts.

IT DASHBOARD

Let me start out with the Dashboard, if I could. If I were to just look at that, I would say there are 70 percent of the projects that are just proceeding along normally. There are 25 percent of the projects that need some degree of attention. Certainly, not major or it would be in the 5 percent category. And only 5 percent of the projects out there are concerning.

Now you also said, Mr. Powner, that there are certain projects that are not included in that, so that is kind of a deficiency in what we are trying to accomplish here.

But how do you explain a situation like healthcare.gov, which I think everybody would acknowledge was a bust. Now, I appreciate they brought in a bunch of people and fine-tuned it or whatever, and saved the day or did their best to save the day. In 1 month, it was listed on the Dashboard under red during its entire development.

So I am sitting here with that knowledge saying to myself, not only is that Dashboard deficient, because you have a whole bunch of stuff going on in the Federal Government that doesn't make its way to the Dashboard, but I am also going to tell you, and I hope you challenge me on this, I am also going to tell you that what finds its way onto Dashboard is jaded. It is not accurate. It is being finessed, because either somebody totally blew it, and they thought this was normal development, or in the alternative, they didn't want anybody to know this thing was in crisis through its development.

Now, I don't care what side of the political spectrum you are on, Democrat or Republican, this is embarrassing.

IT DASHBOARD ACCURACY

So, Mr. Powner, explain that to us. How could healthcare.gov go through this development, tens of billions of dollars spent on it, and 1 month it has a red listing on the Dashboard?

Mr. POWNER. I would say this with the Dashboard, so there are clearly 200 projects that deserve attention. We can't argue that. Our comment is that the work we have done, we looked at the accuracy of the Dashboard, some agencies do a much better job than others. And it is contingent on strong CIOs having review sessions to make sure that what is up here is right. And there are pockets of success.

So what happened with healthcare.gov—and I will say this, sometimes bad data is actually good data, from an oversight perspective, because it was green, green, green, green. It went down March 2013 to red and then right back up to green.

Well, I can tell you, something goes from green to red often, okay, but doesn't go back to green in a month from red. That typically hardly ever happens.

So questions should have been asked there, from a Dashboard perspective. I don't think it was green. But again, even the bad data there told a story, okay? It is really up to the internal processes of those agencies to get this right.

And what we see are some agencies taking it very seriously, and other agencies that aren't.

And I know, Steve, I probably sound like a broken record, but DOD was reporting no red for the last 18 months. That is not true. They have many red projects at DOD.

So there was a recent hearing in front of the Senate Armed Services Committee, where DOD not only are they committed now to coming up with a Dashboard assessment every 6 months, they actually went from 93 investments to 118. They found 25 more major investments at DOD to report on the Dashboard.

So I actually think that is progress. Now, we need to get that right. But we are all over the board on this, but we are encouraged. Before the Dashboard, we didn't have any of this. We didn't have any of this.

EXPEDITIONARY COMBAT SUPPORT SYSTEM

And I will say, the Expeditionary Combat Support System (ECSS) project that failed in the Air Force, Chairwoman Mikulski, and you mentioned some of the big failures, Steve VanRoekel and OMB, they TechStat'ed ECSS three times, so they knew something was wrong with ECSS. And it eventually led to failure.

We can't prove that it was TechStat that did it, but the Dashboard and the TechStat process that was going on at OMB probably saved—\$1 billion was wasted on that. But it probably saved a lot more money that could have been wasted on ECSS in the Air Force.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Senator JOHANNIS. I appreciate that explanation, but I am still going to get back to what happened at the Department of Health and Human Services (HHS), because I think this is a worrisome problem for what you are trying to do here.

To me, it seems like somebody was pressuring somebody to report all was fine. If you are going to make an honest assessment of this, you would have thought that you would have had red all

over the place and people saying, “Whoa, time out. When this thing lights up, it may go down.”

I mean, think of how poorly this thing worked on the day it was supposed to light up, and people couldn’t get on it. I will never forget that very embarrassing scene for the Secretary of Health and Human Services. She is at some event. She has this thing lit up, and this notice comes on that it has crashed. It just was crazy.

In 1 month, it has a red rating. That tells me I can’t trust what you were doing here.

And so, where is the pressure coming from? Is it the CIO in Health and Human Services that is collapsing to the pressure? Is the administration saying, “Look, we can’t report that. This thing has to roll.”

And how do you know that when you get to a point that it is release date, this thing is ready to go, that it just doesn’t implode on you, and, therefore, you should not be trying to release something that is not ready for prime time?

Mr. POWNER. Well, Senator Johanns, I don’t know what exactly happened there and who did what when with that. But I will say you are absolutely right, when you look at the complexity involved, the compressed schedules, the compressed testing, it should have been red. You are absolutely right. It should have been red.

Senator JOHANNNS. I appreciate your candor, because I think everybody knows that is the obvious answer.

So I have kind of run out of time here. There will probably be another round.

So thank you, Mr. Chairman.

Senator UDALL. There will be another round.

Chairwoman Mikulski.

Senator MIKULSKI. Mr. Chairman and ranking member, thank you very much for holding this hearing.

This is an excellent panel because, first of all, we have GAO, who has continually sounded the alarm on these projects, and we are very grateful for the reports.

Many of us actually read these reports. I know the Washington Post says we don’t always read them. But I think the appropriators really love GAO and inspector general reports, so thank you.

And at this table here, I think we have the right people who have the spirit of reform and transformation. So my questions will go not so much to fingerpoint, but to pinpoint how we can move ahead to clean up any mess that we have and to prevent any future messes from happening.

So let me join some of my colleagues on our skepticism because when I hear that DOD, Treasury, and OPM have nothing on the Dashboard, when my own constituent service says, particularly with DOD and OPM, my dashboard lights up. I know these issues here come from two sources. One is we look at budgetary constraints, and project after project, big idea, big project, big failure, big bucks. And canceled, terminated, delayed.

BACKLOGS

But I also have a whole other source of information, people who call Senator Barb dot-gov and say I need help. Where are my backlogs?

My caseload in Maryland is exploding on three backlogs: the Veterans Affairs (VA) disability backlog, the Social Security disability backlog, and the OPM retirement backlog. And then when we go to look at these, we find that their roots and origin lie in technology.

So you see where I am coming from. I want to save money, and I also want to respond to the mission. So this then takes me to—let's go to the veterans backlog.

You, the VA Committee that is trying to meet this, and they work on a bipartisan basis, Senator Johnson, Senator Kirk. Then I held a hearing and had General Shinseki, Mr. Hagel, Ms. Colvin, and so on. Well, first we found that they weren't reporting. And then we find now that DOD and VA have computers that don't talk to each other.

VA and DOD have electronic health records that can't talk. In 2008, Congress ordered them to create an interoperable system. In 2013, Hagel and Shinseki say they are abandoning the effort. The agencies spent \$1 billion in 5 years and have nothing to show for it.

And now we hear that the agencies are developing two separate systems that aren't sure that they are going to merge and talk with each other. And in the meantime, the number of Iraq and Afghan vets who are applying for benefits is increasing.

They shouldn't have to stand in line because we can't go digital at the VA and have these interoperable systems.

This is to me a cameo of what is wrong. And I could go to OPM. I know you are trying and you have, actually, an excellent reform framework here, and I compliment you on it. But your records are in a cave in Pennsylvania. Your records are in a cave nine stories down in Pennsylvania with a dated, dysfunctional system. That is not an accusation. It is not a fault. It is a fact.

And when they try to pull these records up, you know what happens. They don't work. They get inaccurate assessments.

I can tell my colleagues, we have a substantial number of Federal retirees in Maryland, because we have the great Federal labs, et cetera. So the miscalculations, et cetera. So I can come back to you but you are not even on the Dashboard, but you are on my dashboard.

So let's go to the VA.

Mr. VanRoekel, you are Mr. OMB. You say that OMB needs more help because the workload is expanding. I acknowledge that. I have talked extensively with Ms. Burwell.

But tell me, what is the role of OMB, number one, in being aware of the problem; number two, correcting the problem? How much muscle do you have? How much clout do you have? And how could we correct that problem and use that as an example, because many of these cut across agency lines?

Mr. VANROEKEL. Thank you, ma'am.

PREVENTING MAJOR IT SYSTEM FAILURES

I think when you mentioned techno-boondoggles earlier, I think they have some defining characteristics that we have seen time and time again. The private sector has gone through a big transition in the last 15 years on its view of technology, really going from a very

discretionary thing—it was the ability to send an e-mail or print a document or call the help desk—to this very strategic thing. It is the way you market your products. It is the way you control supply and demand and inventory and quality, and connect with your customers in special ways.

I contend that the Government is going through that transition now, that we are in the midst of that inflection point. And the hangover of not being to the other end of that inflection is really kind of defined by the boondogglish characteristics, which are when faced with a problem, we see a single big procurement go out to a typically single, big monolithic vendor with a multiyear specification that runs out to an end. That tends to lead to a very large failure at the end of that, where in year 1, you may have a great idea. In year 2, you have no results to show that justifies getting funding in out-years.

And the pace of change of technology, the turnover of people in the Government, all these things contribute to not leading you to the end result that you want to see.

And so our first order of business is really thinking about how we change that big, monolithic approach into what modern Internet companies do today, which is delivering results very, very quickly. If you use Facebook, and you go up on Facebook, there is probably a new version of Facebook that comes out every month or so. They turn over all the time. You just don't know it, because you just get to take advantage of that.

And so bringing that into Government and setting Government-wide policy are core to my direction.

The second part of this is deeper engagement with agencies. The Federal enterprise, a lot of people misconceive that my organization is the IT shop on the sixth floor of the building and we roll up our sleeves and we sort of dive in. The Federal enterprise is practically a sector of the economy. It is so large. And the ability for a very modest group at OMB, in small double digits on my team, doesn't have the ability to dive in and write code and develop solutions.

What I propose in the 2015 budget is really about how do we create a mechanism, instead of reactively when things are going wrong, proactively go in and engage with agencies to help them right the ship.

Senator MIKULSKI. Do you have the authority, the clout, and resources to go across the agencies or to pick out something that you know that is heading toward a disaster?

Mr. VANROEKEL. I believe I do, yes. I have the authority to work with the OMB director and the agencies on formulating the President's budget. I have Governmentwide policy authority through my role in OMB, and that authority gives me the ability to go in and stop projects.

And as Mr. Powner mentioned, we have done that in agencies through the TechStat process.

But going in reactively is often too late. I think we need to go in on these projects like VA—

Senator MIKULSKI. Do you have the authority, clout, and resources to go in early?

Mr. VANROEKEL. Yes, ma'am.

VA DISABILITY CLAIMS BACKLOG

Senator MIKULSKI. So what can we do to clean up the VA? Not the VA. It goes beyond the VA.

With the indulgence of my colleagues, because I know how passionately you feel about this problem, this veterans' disability long line and also the inability of VA to seem to go digital.

I have walked into the Baltimore office, the third worst field office in the Nation, trying to correct it. If you look at the records of a single event, I am 4'11" on a good day. Some of those records are almost as high as I am. And you have dedicated staff foraging through records trying to pluck a piece of paper to really be able to process the claim.

So what can you do about it? And what will you do about it? And can I have your word that when you leave here, it will be your top priority?

Mr. VANROEKEL. I have a personal interest in the VA. My father is probably watching the Webcast right now. He had his knee replaced at a Veterans hospital in Sioux Falls, South Dakota, a Vietnam vet.

And I have actually been working with the Department of Veterans Affairs on helping shape the direction to take.

I think it speaks to the chairman's earlier comment around CIO authorities. And I think the key thing to consider there is that a lot of these programs that are happening in Government are not just an IT problem. It is not the CIO. And just giving the CIO authority, you are not going to get to where you need to go.

It really takes a collective effort across how we are thinking about—

Senator MIKULSKI. I need to have three to five concrete steps that, Memorial Day, when I go out and talk to my veterans, I want to be able to tell them, in addition to the bipartisan commitment on spending financial resources to do it, that it is going to happen. And you cannot leave this to Shinseki and Hagel. And I am not knocking those men, whatsoever.

We have to solve the problem. And if there is one thing the Congress of the United States agrees on, on both sides of the aisle, on both sides of the dome, no veteran should stand in line to have their disability benefit processed.

So how can we do this? And what would you tell me to tell those veterans that we are going to do to do that?

Mr. VANROEKEL. I would say, that, one, I am the Federal CIO and committed to working on this, and I welcome working with you and your staff and the committee and the larger Congress on driving this forward, as well as working with my counterparts across Government who play an important role in this, and with the Department of Veterans Affairs, the Deputy Secretary of the VA. I have had many conversations around the work to be done here and thinking about, really, the smart application of technology.

And I think they are making good strides on the veterans benefit management system. I think it is a good application of process. We need to really deeply look at process. We have been working with the department on really rethinking some core processes in light of technology.

And third, it is working with the veteran service organization. They are really the frontline, really, of a lot of this.

Senator MIKULSKI. Right.

Mr. VANROEKEL. And we need a closer working relationship with them to encourage all of them to really submit fully developed veterans claims electronically, which we have the capability to receive from them, but we predominantly still get paper through that pipeline. So we inherently create a problem by the veteran service organizations, sort of the lack of electronic—

CIO AUTHORITIES

Senator MIKULSKI. Well, I appreciate everything you said. My time is up. And in fact, the Chair has been most indulgent with my time. And this goes to everybody.

So all of you and the recommendations of GAO, first of all, that is not an accurate number. It doesn't include independent agencies. It doesn't include the legislative branch and the judicial branch, which in and of itself is something.

So that is one thing. The underestimation of the problem, I think, exists.

Number two, what I would like to suggest, Mr. Chairman, is that we survey the subcommittee chairs and get from the subcommittee chairs what they consider the top three issues in technology from healthcare.gov, which was brought up, what we have in CJS, Veterans, and then do it, and then OPM and your situation.

We have to do this, and I am going to ask you to not put us in a priority, but show you the way as we fund this year's appropriation, we cannot have waste. And if this were fraud, we would say one corrupt contractor. But this is dysfunction. This isn't corruption.

So we need a sense of urgency, which I believe you have. And you have people in place now, I believe, that are present, so that we can move on this.

But we cannot tolerate this in this committee. We have to get value for the dollar, be accountable to the taxpayers, and fulfill the missions of our agencies.

So let's go forward together.

Senator UDALL. Chairwoman Mikulski, thank you very much. I think that is an excellent suggestion, working with our subcommittee chairs to try to get that information.

I couldn't echo more what she said in terms of the vets. I mean, this is something that is completely bipartisan up here. We had an excellent meeting. We brought them into appropriations. She was chairing the hearing. We said what do you need to do it? I think we gave them some dollars, but I don't think it is proceeding in the way that is getting the job done.

So that is something you could really help us with, Mr. VanRoekel.

Senator Johanns—or, Senator Moran, your turn to—

Senator MORAN. People often get Kansas and Nebraska confused, but rarely Senators Johanns and Moran.

Mr. Chairman, thank you very much. You and Senator Johanns have been, in my view, greatly interested in a topic that matters significantly to us as taxpayers and people who care about the effi-

ciency and effectiveness of Government. I look forward to us pursuing policies and encouraging agencies to develop plans that alter the landscape significantly in efficiency and effectiveness and timeliness of the way we deliver services to Americans.

And in my view, this is exactly the kind of hearing that the Appropriations Committee ought to be having. We ought to do this more often. It is the reason I was interested and willing to be a member of the Senate Appropriations Committee, because of the opportunity we have for oversight. And I am grateful to my two colleagues here for pursuing this line of questioning.

Let me start with the GAO, and I think part of this was covered, as I understand, before I arrived in regard to healthcare.gov. So I want to focus not on healthcare.gov, but on the IT Dashboard.

REPORTING ACCURACY

And my question is, GAO has issued a report on improving the Dashboard as a transparency tool. Which agencies are reporting accurately? Which agencies are not? And what can we do to make this tool more helpful for oversight purposes?

Mr. POWNER. We do a lot of work checking certain agencies, but there are a handful of agencies that we believe are reporting quite accurately, the Department of Agriculture (Ag), Commerce, Education, Homeland Security (DHS), the Department of the Interior (DOI), and VA are reporting accurately.

If you go to the Dashboard now, you will see reds, yellows, greens for all those agencies. It looks appropriate, given the complexity of some of these IT projects.

If you look at DOD, the Department of Justice, the State Department, Department of Transportation, and Treasury, there is probably more risk than what they are reporting at those five agencies.

Senator MORAN. Thank you. What is the difference between the agencies that are reporting accurately and those that are not? What would you call the characteristic difference between what is happening in one, as compared to the other? What is missing?

Mr. POWNER. I would say, these are CIO ratings, so it is clearly driven by the CIO. I think CIO involvement, and we hear certain CIOs, when they get ratings that funnel up to them to post on the Dashboard, and certain CIOs push back and say, "No, I think there is more risk than what we are reporting." We like to hear that. I mean, that is how you effectively manage these programs, by acknowledging the risk and then tackling the risk going forward. So I think it is up to those strong CIOs to really question to make sure we have accurate status.

We only have 760 of these. Most agencies have no more than 50. It is not asking that much of any agency to get an accurate assessment when many are spending between \$2 billion and \$6 billion within their agencies on these major investments.

Senator MORAN. Are you telling me that it is the attitude, approach, the effectiveness, the leadership skills of the CIO that determines whether or not you get the accurate outcome?

Mr. POWNER. It is all that, and we talked a little bit, too, prior about CIO authorities. Some agencies have authorities where they are deeply involved with certain of these projects, and some aren't, to be realistic. And the authorities are kind of all over the board.

Senator MORAN. Does that corollary apply to those who are doing it the best and those who are doing it less well so? Is there an authority issue, in, again, those two categories? Can we tie them together?

Mr. POWNER. You would tie them together, but I also have seen some CIOs who are very effective at using this mechanism without having the authorities still getting accurate ratings.

And those are just good leaders within certain agencies.

Senator MORAN. Thank you very much.

SYSTEM FOR AWARD MANAGEMENT

Let me turn to the GSA, SAM.gov. Since the Government switched from the Central Contractor Registration (CCR) to SAM.gov, as I understand it, there has been a drop in the number of new businesses competing for Government contracts. The number of new registrations per month has dropped over 35 percent, and I have heard from some small businesses interested in contracting with the Government, the Federal Government, about the difficulty of navigating the process.

Here are my questions: Can you explain the drop in registration in switching from CCR to SAM.gov? Should we expect the same drop with regard to other systems as they are integrated into SAM.gov? Is there a backlog to certify those new registrants? And if so, how do we reduce it? And what is GSA doing to improve the system that burdens new entrants into this process?

Mr. TANGHERLINI. I think in many ways SAM.gov, as part of the integrated acquisition environment, actually represents some of the less than best practices of how Government goes and buys technology.

And when I came to GSA, I inherited this program, which was heading toward failure. We worked very closely with OMB. We were able to turn it around so that we could deliver this vital mission.

But if I could go back in time, I would have worked closely with our CIO, who was not integrated in the project initially, which right there suggests that there is going to be an opportunity for failure, and we would have built it in a very different way than the way we are building it now.

Now what we found with SAM.gov is that actually we pushed up, dramatically pushed up, people's compliance with certain types of reporting. And that was the goal, to get people more compliant with required reporting in order to be an approved and certified Federal vendor.

But that means that more people are having trouble getting through the compliance hurdle. So while we have seen a drop in the number of people applying, we have dramatically seen an increase in the overall compliance of the people who are, in fact, certified.

So now we are going back and asking, are there ways that we can actually make it easier for people to get on to SAM. Can we make SAM much more user-friendly? Can we make it much more effective, because as a primary buyer of services for the Federal Government, we want as many competitors as possible bidding on

Federal contracts. We don't want to reduce the number of people competing.

We don't have a backlog right now, but we do have a system that, because of its very high compliance hurdles, actually makes it harder for people to get all the way through. When they are through, they are compliant. We feel that is a better certified vendor that we are offering the Federal community. But we have to figure out ways to make it easier.

Senator MORAN. Those two things, in my view, should not be mutually exclusive.

Mr. TANGHERLINI. I agree. I completely agree.

Senator MORAN. Thank you, Mr. Chairman.

Senator UDALL. Thank you, Senator Moran.

CIO SPENDING AUTHORITY

Mr. VanRoekel, in 2011, OMB issued a memo outlining that CIOs, and this is a quote from that memo, "should drive down costs and improve service for commodity IT."

Yet, few Federal CIOs seem to have authority over community IT purchases, including their agencies. And you heard the testimony earlier, I was kind of laying the groundwork for the question I am asking you here.

Doesn't it make sense to you that this might be an area that is ripe for a legislative solution or legislative enactment? The three of us are on a piece of legislation that gives specifically that authority to the CIOs that was in your memo. And so will you work with members of this subcommittee to ensure CIOs have the ability to oversee IT spending within their agencies?

Mr. VANROEKEL. Thank you. I consider this a very important issue. That memo is actually the first memo issued by my office in my tenure as Federal CIO, so I weigh it very heavily as very important.

The role of the CIO has continued to evolve over time. If you looked at CIOs, even in the private sector, even what we now consider cutting edge private sector companies, 10 or 15 years ago, you would have seen a much different set of characteristics than you see today.

Today, the CIO is a cyber warrior. They stay on top of cyber-type aspects. They are a business owner, and they manage, in the private sector, profit and loss (P&L) statements. In the public sector, they manage these very large budgets. They are an executive from a team, a multilayered team aspect.

What we have inspired to do in my tenure is not only, one, lay the groundwork to say that our first stage of getting costs under control was really to make sure that we had a view into this commodity spend. It is unthinkable in the private sector for an agency of Government to run more than one e-mail system.

When we came to Government in 2009, the Department of Agriculture was running 21 e-mail systems. And so our first foray here was let's get our arms around this commodity stuff. This is the lowest of the low-hanging fruit to drive cost savings.

The Department of Agriculture, I am happy to report now, as Mr. Powner said, they are one of the great reporting agencies. They are running one e-mail system. It is cloud-based. They have one way

of buying mobile devices. They have one way of buying computers across that very large enterprise, and they have done a great job driving this stuff forward.

So as we evolve, as we take this journey through really moving from discretionary to strategic, I think the role of the CIO will continue to evolve. And I think there is room for policy and discussions around what that role entails.

What I would caution is that that role, I believe, truly believe, is going to continue to evolve and will be set up in a way that we should have fruitful discussions to talk about what that is going to look like for now and into the future for success.

Senator UDALL. Mr. Powner, could you comment on that, specifically on the authority of the CIO? Do you believe it would be helpful to identify specifically that they have the authority to make commodity IT purchases, and those kind of things, throughout the agencies?

Mr. POWNER. Yes, I think if you start with the authority issue on commodity IT, there is no reason why CIOs in the Federal Government should not have authority over commodity IT.

And I think the PortfolioStat initiative, we have 200 initiatives that total \$5.8 billion. If we do it right, we could save money. That includes some data center consolidation. It includes going to the cloud. It includes eliminating a lot of duplication.

And there is always this big debate, are CIOs responsible for mission-critical applications and systems? Frankly, they should be. But let's start with commodity IT. Start with commodity IT, get the authorities right there, and then we can grow the CIO authorities, as Mr. VanRoekel referred to. I think that is the appropriate way to go.

Senator UDALL. Thank you.

Senators JOHANNIS.

Senator JOHANNIS. Thank you, Mr. Chairman.

RETIREMENT PROCESSING

If I could go to Director Archuleta with a question or two about the retirement system, it seems to me that when you are dealing with the body of people from the Federal system who are qualified for retirement or are on a retirement program, that you are dealing with a pretty defined universe, compared to rolling out an IT system for the entire United States and everybody who might access it.

This would seem, by comparison, relatively straightforward. But we have all read that article about the cave. I can't imagine working under those conditions, to be honest with you. But people go back to the stacks and stacks of paper files. And literally, they are figuring out retirement with a pencil and piece of paper and a calculator.

I mean, I was amazed. Is that truly what is happening? When somebody reaches retirement age, they decide to retire, how do you make sure—walk us through the steps where they go from the decision to retire and retirement day to actually being on the system?

Ms. ARCHULETA. I would be glad to, Senator.

First, let me say, especially as we honor employees this week, that employees at Boyers are a terrific group of individuals who are

very dedicated to making sure that our annuitants are served in the best way possible.

If they are not able to meet some of our expectations, it is not because they are not trying. It is because we have not given them the tools they need to implement the work that is so important.

When you think about the number of people that Retirement Services deals with on a daily basis at any given time, the general group of people are over 2 million retirees and their families who are customers of Retirement Services. And, as you know, we have about 1.9 million people in the Federal Government right now. On any particular month, anywhere from 9,000 to 10,000 of those individuals retire.

In 2010, there was a decision to shut down an IT system that had been piloted. It didn't work. And the result of which is that we had to go back to the drawing board. What the employees did was to use very effectively what has been characterized as paper and pencil, but, I will tell you, a lot of dedication as well.

They have managed to reduce the backlog. Today, just a few days ago, we reported to you that there were approximately 15,000 backlogged cases. That still is too many.

So as a result of my commitment to reduce the backlog that I made during my confirmation hearing, and with the help of our new CIO and the dedicated staff at Retirement Services (RS), we are focused on three priorities for reducing the backlog and moving forward into the future on how we deal with Retirement Services.

The first one, and you will recognize all of these, sir, because your constituents talk about them, is that we are going to look at customer service first, and what is the response time that it takes for any annuitant to hear about whether he or she is eligible for the retirement contributions that they have put away in their retirement fund.

Usually, if I were to retire tomorrow, I would work with my Human Resources (HR) manager in the Department of Labor, and I would let her know that I was retiring. The HR manager would then gather my papers and inform our Retirement Services that Katherine Archuleta is about ready to retire.

The gathering of those papers on the day that I do retire, if there are no outstanding issues around my retirement, what will happen is that first, I retire on May 1. About May 15 or so, I will get my first check, which is the accumulation of my leave pay. On about June 1, I will get my first retirement check, and that will be 80 percent of what I am entitled to. The last 20 percent will come in the final adjudication of my file, and usually that happens within another 30 to 45 days. That is a normal case.

But sometimes not everybody is as easy as Katherine Archuleta. There are other times when there are other issues that employees encounter, such as court cases or other liabilities that they encounter, which we must investigate.

If all of that information is in our hands, that same timeline will apply. However, if there are things that are not available, if we don't have the paperwork, if the court is involved, it takes a lot more investigation by these individuals.

So that customer service is really important to us, that we are communicating. So we are focusing on that.

The second thing, sir, that I would tell you we are doing is focusing on case management, how do we get those files as quickly as we can? The investment, the appropriation that you provided to us at \$2.6 million will enable us to develop the case management system. We have asked for another \$2.4 million in 2015. That will allow us to complete that. And by the end of fiscal year 2015, we should have a case management system online.

Finally, we are going to work on the post-adjudicative workload. Those are individuals who in fact have already retired and changes in their lives have made further work with them necessary. That might be a death of the annuitant. It might be a divorce of the annuitant. There might be new child custody issues. All of those things come into play as their annuities are calculated.

It is a complicated process. It is in paper and pencil right now. But I will tell you that there is a dedicated staff, including the people in Boyers, many of whom have worked there for over 20 years, who are working very hard to solve these problems.

Senator JOHANNNS. You know, nobody here is picking on the employees.

Ms. ARCHULETA. No, I know that, sir. Yes.

Senator JOHANNNS. We are happy that there is somebody who wants to do the work and is dedicated and forcefully trying to get it done.

But I do think this is an example of where we have spent money, really, to no avail. You have the employees out there holding things together, but when you say we haven't given them the resources, I think we have given them the resources. We just haven't deployed the resources appropriately, and it has not been effectively utilized.

Ms. ARCHULETA. And I could add to that the resources have worked. So it is my commitment to you, sir, to keep you up-to-date on where we are at in this process. As I said, I have employed a new CIO. It is at the top of her list of things that we are going to accomplish.

And I will be sure to keep you and this committee up to date on our progress.

Senator JOHANNNS. Thank you, Mr. Chairman.

Senator UDALL. Senator Moran.

Senator MORAN. Thank you again.

FEDERAL RISK AND AUTHORIZATION MANAGEMENT PROGRAM CERTIFICATION

Let me go back to OMB. I want to talk about the Federal Risk and Authorization Management Program (FedRAMP). Your memorandum requires that all cloud service providers (CSPs) must be FedRAMP-certified by June 4, 2014, and that if they are, that makes them eligible to partake in future Federal cloud service procurement opportunities.

June 4 is not very far away, and FedRAMP certification seems to me to be pretty important. And I think there is some concern that we may not be prepared by June 4. And so my questions are, what measures will be taken to ensure that agencies enforce the FedRAMP deadline on CSPs seeking Government acquisition June 4 and beyond?

Mr. VANROEKEL. The FedRAMP, just to catch people up, FedRAMP is called the Federal Risk Authorization and Management Program. Agencies of Government were going under our cloud-first policy to cloud vendors and basically asking for very specific and unique requirements for each agency. What was happening was, two things are really happening. One was that they were driving all the cost savings out of it by asking for unique solutions to be produced by the private sector, to send them back these solutions. And two, it was creating all this variability in the marketplace, where cloud vendors didn't know how to sell to Government. They didn't know how to provide.

So I launched FedRAMP to basically build a consistent way of doing cybersecurity around these cloud providers, effectively shaping cloud computing as we know it in the United States.

Now if you go to Amazon or Microsoft or any of these large cloud vendors and you talk to them, even about their corporate strategy, they are using FedRAMP as the way of defining consistent cybersecurity capabilities to sell into the private sector. We are even seeing other foreign governments pick up FedRAMP as now their model of operating, because the United States owns about 80 percent of cloud computing capabilities for the world. And so we are making good progress.

On FedRAMP adoption inside the Government, we have over, I believe, a dozen or so vendors that have now reached the FedRAMP certification that can now sell into Government. And agencies also are then required, because I didn't want people to get out and fail, and, "If I don't go to the cloud, then I can just use my own stuff inside my own data center." Part of what you are seeing in the June deadline is getting Federal agencies to say, if they are going to provide their own capabilities, we are going to require that they meet those same guidelines for cybersecurity. And I believe we are making great progress.

Senator MORAN. If you have to meet the same requirements, what would be the incentive to stay in-house?

Mr. VANROEKEL. That is a great question. It was actually part of the incentive structure we put in place to try to get people to go to the private sector, because we think that is a better, long-term motion.

Senator MORAN. Is it better because of cost savings? Better because you think the security would ultimately be better?

Mr. VANROEKEL. I think it is better for a couple reasons. One is, it goes from a very capital-intensive model to an OpEx model where instead of upgrading your data center and coming to committees like this and asking for money every 3 years to buy new servers and things, you just pay one price over the course of time. And two is the capability. You get the benefit of upgrades and things that the vendor is doing at scale with other customers.

When you go to Amazon.com, you don't think to yourself, do I have the latest version of Amazon.com installed? You just use it, and it is just available to you. That is kind of the beauty of cloud and where this goes, is that we can reap the benefits of large-scale, and get the benefits of the upgrades and the technology shifting over time without us having to drive it ourselves.

Senator MORAN. You mentioned the number 12. Is that a good number? Is that a sufficient number?

Mr. VANROEKEL. I was looking. These move all the time, so I was trying to pull to the page. I believe that is very close, but I would be happy to get back to you.

[The information follows:]

As of June 2014:

22 cloud services have received FedRAMP authorizations:

—12 companies and 13 cloud services have received Joint Authorization Board (JAB) issued Provisional Authorizations To Operate (P-ATO).

—2 companies and 3 cloud services have received agency issued Authorizations To Operate (A-ATO).

—5 private cloud services have been authorized by the Department of Homeland Security (DHS).

—1 Government agency (U.S. Department of Agriculture) has one cloud service that meets FedRAMP requirements.

—There are 13 cloud service providers (CSPs) with 13 cloud services in-process for Joint Authorization Board authorization.

The authorized cloud services range across Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as Service (SaaS) offerings. At any given time, there are also upwards of a dozen systems being actively reviewed by the JAB for FedRAMP authorization, and many more in the pipeline.

Senator MORAN. Just in general, is that the number of vendors that you would want to be certified? Or is the audience much larger, the opportunity much larger?

Mr. VANROEKEL. The key to that is, many of the very large vendors out there are represented in that 12. The bulk of the large vendors, like the Microsofts and Amazons of the world, are represented in that number.

We have a very rich pipeline, and I think the vibrancy in this cloud marketplace continues to evolve and expand. And it is a place that really speaks to kind of American exceptionalism in technology.

Senator MORAN. Very good.

BROADBAND ACCESS

Another question, Mr. Chairman, talk about broadband access with the GSA. The Middle Class Tax Relief and Job Creation Act of 2012 directed GSA to develop a master contract to govern the placement of wireless service antennas on buildings and other property owned by the Federal Government. This makes some sense to me, but I also understand that not much has happened, and that GSA is significantly behind the deadline. I think President Obama has directed this to happen. It hasn't happened following his Executive order. It is a congressionally mandated program.

Would you bring me up-to-date on where we are and maybe my understanding of the timeframe? As I understand, you are a couple years behind?

Mr. TANGHERLINI. I will actually have to follow up with you and the subcommittee to give you a better update on where we stand with that particular initiative related to the Recovery Act.

[NOTE: See in the "Additional Committee Questions" at the end of the hearing the General Services Administration's response to Senator Moran's question above.]

Senator MORAN. I think there is merit to achieving this goal. I think it enhances the wireless industry's ability to deliver. I pay at-

tention to these issues, in part because of the rural nature of where I come from. And it also is trying to create revenue for the Treasury. So I would be glad to have your follow up.

Mr. TANGHERLINI. We support all of those things. We would like to help out.

Senator MORAN. Okay, thank you very much.

Senator UDALL. Thank you, Senator Moran.

DIGITAL SERVICES

OMB's fiscal year 2015 budget request includes a new Digital Service team of 25 staff to identify major IT problems across agencies. GSA's new 18F team will include talented, private, and non-profit sector technology experts to help resolve IT issues at the agencies.

I want to ask Mr. VanRoekel and Mr. Tangherlini, can you explain how these teams will work together to prevent major IT system failures and improve citizen services? What types of problems do you expect these groups to solve? How is this effort different from the Presidential Innovation Fellows? And are you concerned that the agencies may be reluctant to request help from GSA's 18F team?

Mr. VANROEKEL. Great, so I think I will go first. The key thing to think about as far as I think a lot of what you have heard today is a lot of our engagement on Federal IT on programs that aren't going so well is very reactive. We go in when indicators are showing us things aren't going well, or other notable examples where we go when in, in a reactive way.

The intention of this budget request is to really shift from reactive to more proactive, where we are starting to identify what are the key investments that agencies are doing, and then how do we get a team of people in that you would really, as American taxpayers, would want in looking at these investments in a nonbiased way to understand what are the gaps that need to be filled.

Current staff within OMB, our time is primarily comprised of our statutory duties that do the budget formulation, reporting to Congress, and other things. Our GAO engagement work, which is, amazingly, up to about 40 percent of our time, is spent working on GAO inquiries.

HIRING EXPERTISE

And then through the great work of this committee, we stood up a couple years ago the IT Oversight and Reform Group, which is a small group that has been really focused on Government efficiency. It is what has driven those billions of dollars in savings we talked about. It is what drives the report that you get on a quarterly basis that has line item savings identified inside agencies. And it has driven the PortfolioStat process.

This additional capacity that we are talking about in the 2015 budget is really about bringing people in. Think of the Facebook engineer out there, the usability person at Google, or the person who can take a rotation in Government, work within Government, where we go in and having identified important projects within Government, come into those Government agencies and provide expert consulting, look at and spend time with agency.

And I am saying, by “spend time,” not a 3-hour PowerPoint session, but spend 1 or 2 or 3 weeks or more with the agency really getting behind the scenes on what is going on inside this agency, what are commonsense, 21st century ways that we need to address the issues at hand, and then work with agency on coming up with a plan on how to address those.

So really think of our group as the group that does the consultancy upfront, identifies gaps, comes up with a plan to address those gaps. And then the way that the agencies would address those gaps I anticipate would be one of three ways.

One is they would find or hire someone into their own organization to address those. We actually have been working with Director Archuleta on looking at flexibility in technical hiring and other things to help fill that sort of gap.

Two is looking at the vendor community and understanding can these vendors who are working on these projects subprime in small innovative companies? Can they work in a different way? Can they bring talent in? We have seen that work effectively in Government.

Or third is potentially working with GSA’s 18F team, where they are building delivery capacity, people who would actually sit with agency and write code or work on these projects in a small way.

And what we have seen time and time again, from me going into an agency and helping them on a project to other efforts, a very small number of people who have a notion of how to deliver things, in modern technology terms, can really change the game, and change the dynamic in a way.

It doesn’t take an army of new people coming in. You can actually just inject a few well-meaning people in to really change the outcomes today.

18F

Senator UDALL. Dan, on the 18F.

Mr. TANGHERLINI. I would just add to that. What we are trying to do is build an additional level of capacity beyond our existing capacity, which is to provide agencies with contract solutions. So that rather than agencies trying to figure out every component of how you would solve a problem, we can help agencies through having internal capacity, programming capacity, better understanding of how you build IT systems, help them experiment with solutions, so that when we go back into the marketplace for the bigger buy, we are actually a more knowledgeable consumer of IT services.

We think that working more closely with the capacity that Steve is developing means that we are going to have an opportunity to have a feedback mechanism, figure out what is working, frankly, what isn’t working, and make sure that we carry that message from agency to agency, so that these mistakes don’t get repeated over and over again.

The other exciting aspect of this is that 18F is going to be the resident home for the Presidential Innovation Fellows. So those are folks who the agencies have personally selected to come work on problems that they have identified. And from that, we are going to have a better way of understanding the challenges within those agencies. We are going to use some of the experiences that the Presidential Innovation Fellows bring back, share with the other

fellows, to understand how we should be targeting our efforts to serve agencies.

We also think that the Presidential Innovation Fellows will be a fantastic recruiting tool both for our internal capacity that we are developing at GSA, external capacity that is being developed in the other agencies, and maybe even Steve's office, too.

Senator UDALL. Thank you.

IT INITIATIVES

You have commented on this area, previously, so I am wondering, do you believe these new proposals would address some of your concerns in terms of providing more guidance and oversight to IT initiatives, which I think you have mentioned in the past?

Mr. TANGHERLINI. I think these are good ideas to be proactive and to be innovative and to get in on the front end. That is definitely needed. So these initiatives are great.

But we have 760 investments up here that are in flight; 275, roughly, of the 760 are acquisitions that need some basic blocking and tackling to get them done. And then we also have most of this as legacy spend, data center consolidation and PortfolioStat.

So I think these are great ideas, but we can't lose sight of this, because we are spending a lot of money and we need help with some of this.

Senator UDALL. Thank you very much.

Senator JOHANNIS.

Senator JOHANNIS. I am very mindful of the fact that we are going to get called to a couple votes, I think in about 10 or 15 minutes, so if I could just ask a couple quick questions, just a follow-up on healthcare.gov.

HEALTHCARE.GOV

Mr. VanRoekel, were you a part of the oversight team? Or was there an oversight team, as healthcare.gov was being built and working its way toward implementation?

Mr. VANROEKEL. My role was very in line with the mission and role that OMB plays, in that I assembled team across the Federal agencies that related to the Affordable Care Act. It was something that we call the IT steering committee.

And the primary output of this team was the data services hub capability of the Affordable Care Act implementation. It is somewhat of a natural act for agencies to work within their own agencies. It is not as natural in the model that is Government for these agencies to work across their borders. So we brought together the teams of technical people to work with each other to solve the opportunity for these transactions to be routed between the agencies.

Senator JOHANNIS. Okay. Did you have any concerns when healthcare.gov was not reporting red? I mean, they did 1 month and then popped right back to green. Did that raise any red flags for you and your office? Or did anyone come to you and say, "You know, I just wonder if we can rely upon the information that we have been given by HHS."

IT DASHBOARD

Mr. VANROEKEL. The IT Dashboard, it is probably important to note as a kind of pretense to this, primarily tracks cost and schedule variance. Cost and schedule variance wasn't something that the Government was tracking, writ large, before my office created the IT Dashboard. And the IT Dashboard was sort of an important first step in getting agencies not only to report this, but, more importantly, letting agency CIOs have visibility into the corners of their agencies on what all the investments were and what were the cost and schedule variance of those investments. We now have that as a cost and schedule variance to track. And that is what IT Dashboard does.

I agree with Mr. Powner. We hold a lot of potential to enrich the way we are looking into these investments and our fiscal year 2015 budget request really starts to get at the capacity to be able to that.

Senator JOHANNIS. So at that time and at this time today, if I am a Secretary, and we report that we are on budget, number one, and number two, that we are meeting the schedule for whatever rollout day is, then I get a green on the performance Dashboard is what you are saying?

Mr. VANROEKEL. I have added another feature to the Dashboard that is something I call rebaselining. So if an agency goes in and has set an initial cost schedule and time schedule to their investment, we could not tell, in the first versions of IT Dashboard, if an agency is going in and changing their targets, they were moving the schedule, moving the costs.

In late 2011, early 2012, we added the functionality, so we could see if someone was rebaselining their investment, meaning they were moving the goal line on cost or schedule. That gives us a key indicator to look at as well.

Senator JOHANNIS. You can kind of see the point I am getting to. I think that is good information to have. But I could be a Cabinet member and my team could be coming to me and saying, "We are on budget. We are on schedule. We are not moving the goalposts," and I would report green. And then the fourth thing they could be reporting to me, "We don't think this has a prayer of working."

And yet, I would be in compliance with the Dashboard, right?

Mr. VANROEKEL. I think, to Senator Mikulski's point earlier on kind of these large monolithic projects, one of the primary problems we have is we don't know the health of the project until the end, until we get to the delivery. We have seen this in many examples across the Federal Government.

AGILE DEVELOPMENT

The key is, as I mentioned earlier, to think in a more modular way. How am I delivering something I can actually see and touch and feel in 60 days or 90 days, and limit those deliveries to that time?

Part of our broader policy work, and the capacity that we are putting into the 2015 budget, is working more side-by-side with agencies to drive this as the new normal.

You wouldn't walk into a private sector company today and see them spec'ing a 3-year project that is \$100 million and things like that. Just as a society, you don't deliver solutions that way.

Our aspiration with this work is to get Government to really think about how am I doing things in a more agile way that delivers customer value very soon.

In the cases where I work with agencies, or we get people who were bringing this to agencies, we see great results.

IT DASHBOARD RATINGS

Senator JOHANNNS. What you are telling me, you answered that in a finessed sort of way, what you are telling me is the answer to my question is yes, you could report you were on time, you are on budget, you are not rebaselining, but my team could be telling me that it looks like this thing will fail, and I would still be in compliance with the Dashboard.

Mr. VANROEKEL. The green, yellow, and red are self-assessments. They are independent of the metrics we see under the Dashboard. We do track those metrics, independent of green, yellow, red. We actually don't use green, yellow, red as the key indicator.

Senator JOHANNNS. David, I saw you nodding.

Mr. POWNER. Well, I will give you a good example. I think DOD has turned a corner. They now have 118 investments reported, up from 93. They have agreed to provide an assessment every 6 months, not monthly, like other agencies.

But in their new guidance, what they said, and they have had so many failures with enterprise resource planning (ERP) systems, and the Air Force ECSS is the recent example. They are going to list every ERP system they are doing as red, because of their past history. I actually think that is appropriate, so it gets the right attention.

So they could be perfect on cost and schedule, but they may call it, if it is ERP, and the complexities they have had and all the past failures, it is going to be red.

We like that. So I like where there is flexibility, because it is okay if we have more reds. We want this managed more effectively, so we are not wasting taxpayer money.

Senator JOHANNNS. And, again, not to get into a partisan debate about whether we like the healthcare bill or not—we could have that debate, and we have had—I think the managers, right up to the gentleman in the Oval Office, deserve to know if this thing isn't coming together.

As a former Cabinet member myself, I would want to know that. And if I did know that, I would be telling somebody, my committee of jurisdiction, the President himself, "There is a very serious problem here."

And that is what I am trying to get to. I just want to make sure that whatever processes we have in place are catching what we think they are catching. And I just worry that today we are not there yet.

Now I compliment you. I do think knowing about price or whether you are on budget, et cetera, is good information to have. But

at the end of the day, we also want to know that when we spend that money, we are going to get something that actually works.

And that is where the Federal Government, I think, gets so much criticism. We spend all this money, and at the end of the day, it doesn't work, and we are all kind of going, "Wow, that was a surprise," when, quite honestly, somebody had to know that as this was being put together, it wasn't coming together. That is what I am trying to achieve here, how do we get to that?

And that is a question for another day, but a question we are going to continue to press on. And I thank you for your indulgence, Mr. Chairman.

Senator UDALL. Senator Moran.

Senator MORAN. Mr. Chairman, no questions.

Senator UDALL. Okay, let me see here, first of all, let me thank all of you for participating and being here today. You can see there is a real passion up here for the work that you do, and saving real dollars, and focusing on this. We really appreciate the top officials and experts in IT here, and your ideas for improvement. I think you gave us some very good suggestions.

Today's discussion, I think, has been very helpful, and it will be instructive as we move forward.

The hearing record will remain open until next Wednesday, May 14, at noon, for subcommittee members to submit statements and questions to be submitted to the witnesses for the record.

[The following questions were not asked at the hearing, but were submitted to the Departments for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO HON. STEVEN VANROEKEL

QUESTIONS SUBMITTED BY SENATOR TOM UDALL

TECHSTAT AND FAILING IT PROJECTS

Question. The Government Accountability Office (GAO) has noted that the Office of Management and Budget (OMB) has transferred responsibility of TechStat reviews to agencies, and conducts many fewer TechStat sessions itself. Much of the success of previous TechStat sessions has been attributed to the fact that they were attended by high-level managers from the agency and OMB.

—Do you believe that TechStat reviews are as effective when conducted by agencies as when conducted by OMB?

—What tools do agencies have to terminate information technology (IT) investments that are critically over budget, over schedule, or failing to meet performance goals?

—Similarly, what tools do agencies have to replace these terminated investments with new commercial IT solutions?

—What authority does OMB have to intervene into agency IT projects that are at risk or failing and cancel them?

—What will OMB do to provide more guidance and oversight of the Federal Government's most at-risk IT projects?

Answer. OMB works on a continual basis with agencies to conduct TechStats, be they led by the agency or by OMB itself. As part of the 25 Point Plan to Reform Federal IT Management, OMB worked with agencies to develop a TechStat toolkit, which was based on the rigorous processes OMB used to develop the TechStat model. The Toolkit provides templates, guides and other tools for an agency to successfully execute a TechStat. OMB believes that TechStats can be more effective as a tool, when managed and applied by agencies. This is because agencies are closer to the programs and are able to recognize the triggers and risk factors that an investment may be heading off course more quickly than OMB can. As a result, the agency can assemble a multidisciplinary team to review the investment and implement corrections.

Agencies have broad latitude to cancel failing investments. In fact, in many instances they are able to marshal administrative remedies faster than OMB. Agencies can terminate contracts and assign personnel to meet revised agency priorities. These types of changes are implemented very quickly. In addition, on at least an annual basis agencies convene investment review boards (IRBs) to review the IT investments of their respective institutions to ensure that they are delivering on the vision and consistent with the agreed upon strategy.

Additionally, as part of the Smarter IT Delivery Initiative, OMB is reshaping the delivery of information technology already underway and introducing new approaches/tools to transform the Government IT landscape. To do this, OMB is focused on a three-part agenda that will provide the Federal Government with: (1) the best talent (2) the best companies; and, (3) the best processes to drive outcomes and accountability.

As part of this effort, in August 2014, the Administration began piloting the U.S. Digital Service. This small team of America's best digital experts will work in collaboration with other Government agencies to identify and fix problems, to help upgrade the Government's technology infrastructure, and to make Web sites more consumer friendly. The team has one core mission: to improve and simplify the digital experience that people and businesses have with the U.S. Government by:

- Establishing standards to bring the Government's digital services in line with the best private sector services;
- Identifying common technology patterns that will help us scale services effectively;
- Collaborating with agencies to identify and address gaps in their capacity to design, develop, deploy and operate excellent citizen-facing services; and
- Providing accountability to ensure agencies see results.

The Administration also released for public comment two crucial components in its growing IT toolkit that will enable agencies to do their best work—the Digital Services Playbook and the TechFAR Handbook.

The Digital Services Playbook lays out best practices for effective digital service delivery and will serve as a guide for agencies across Government. To increase the success of Government digital service projects, this playbook outlines 13 key “plays” drawn from private and public-sector best practices that, if followed together, will help Federal agencies deliver services that work well for users and require less time and money to develop and operate.

To ensure Government has the right tech tools to do its job, and can be more agile and flexible to meet rapidly changing needs, the administration also launched the TechFAR Handbook. The TechFAR Handbook is a guide that explains how agencies can execute key plays in the Playbook in ways consistent with the Federal Acquisition Regulation (FAR). This document will help agencies take advantage of existing authorities to procure development services in new ways that more closely match the modern software development techniques used in the private sector.

With regard to OMB, it has authority as described in the E-Government Act of 2002 (Public Law 107–347) to oversee implementation of:

- Capital planning and investment control for information technology;
- The development of enterprise architectures;
- Information security;
- Privacy;
- Access to, dissemination of, and preservation of Government information;
- Accessibility of information technology for persons with disabilities; and
- Other areas of electronic Government.

OMB's Office of E-Government and Information Technology will continue to publish new and/or updated guidance to support agencies in their development and management of IT investments. This includes revising the capital planning guidance that is used to help agencies manage IT investments. The revisions are intended to provide the right level of visibility into the investments so that agencies, OMB, Congress and the public can see that the Government is making smart investments in IT.

SPECIAL HIRE AND PAY AUTHORITIES

Question. Both GSA's 18F and OMB's Digital Service are using Schedule A hiring authority. Direct Hire Authority is available for Information Technology Management (Information Security) (GSA–2210, GS–9 and above, Governmentwide and nationwide), but not all IT positions.

- Given the high demand and competition for IT-related positions, and because the private sector can often pay higher salaries for such positions, what in-

creased hire and pay authorities are under consideration for IT positions that don't currently have any, and what types of positions would these be?

—What other types of hiring and pay incentives beyond those now available to Government employees and agencies should be contemplated for recruitment and retention of IT specialists?

—Do you believe that OMB needs additional authority to expand the use of Schedule A hiring authority for the Digital Service?

Answer. OMB, the U.S. Department of Veterans Affairs (VA) and the General Services Administration (GSA) recently received authority from the Office of Personnel Management (OPM) to hire a small number of Schedule A, Digital Services Experts to support the Smarter IT Delivery Initiative. We believe that hiring flexibilities like this will better allow agencies to compete with private sector hiring standards for elite IT talent. Currently, we are planning research and evaluation methods which would help the Government determine if this Schedule A authority should be scaled Governmentwide. In the meantime, the Administration continues to explore other flexible hiring options that agencies can utilize such as term appointments. The Administration also encourages agencies to utilize the direct hire authority for cybersecurity professionals where applicable.

DATA CENTER CONSOLIDATION UPDATE

Question. Since agencies began executing their data center consolidation plans in 2011, more than 700 Federal data centers have been closed. This has led to \$3 billion in reported savings through PortfolioStat, but more progress can be made. GAO's testimony notes that as of last July, Federal agencies reported having nearly 7,000 data centers. Measuring average server utilization is one way to evaluate how effectively the Federal Government is using its remaining data centers. While the industry standard for average server utilization is 60 percent, the Federal Government's standard is roughly 10 percent.

—How many Federal data centers existed at the start of this initiative and how many are there now?

—What is the current average server utilization rate at Federal data centers?

—What is your target utilization rate for Federal servers?

—How is OMB providing oversight of this initiative and coordinating agency efforts to consolidate data centers?

Answer. In October 2010, based on agency submissions after the launch of the Federal Data Center Consolidation Initiative (FDCCI), OMB reported 2,094 data centers. As of July 2014, agencies have identified 9,540 data centers, of all types and sizes. This increase, explained in further detail below, is a result of a change in definition of a data center, and is not a result of construction of new data centers. The 9,540 is categorized into two populations, core (275 data centers) and non-core (9,265), further defined below.

It is important to note that since the FDCCI was launched there have been several important policy shifts within the data center space which provide some context for the increased 9,540 figure. First, in March 2012, based on a recommendation from the FDCCI Task Force (a CIO Council body), OMB changed the definition of a data center and removed all square footage and tiering requirements (the original definition required 500 square feet and meeting strict criteria from the Uptime Institute). Subsequently, this caused a dramatic increase in the number of data centers that agencies reported. As mentioned above, the jump was not due to construction of new data centers, as the Government maintains a net zero growth policy dating back to the summer of 2010. Further, the definitional change has provided additional transparency and insight into the Federal Government's actual data center footprint. The majority of the Government's data centers are smaller rooms and closets (less than 1,000 square feet), rather than large, stand-alone facilities, that one envisions when he/she considers what a Google, Facebook or Microsoft may employ.

Second, in March 2013, the FDCCI was integrated into PortfolioStat, the Government's IT portfolio management initiative. As these efforts converged, OMB instructed agencies to focus on optimizing those data centers that are pivotal to delivering taxpayer services, while closing duplicative and inefficient data centers. As a result, agency progress under the FDCCI is no longer solely measured by closures. Instead the FDCCI Task Force categorized agency data center populations into two categories: core and non-core. While the Government will continue to target the initial goal of closing 40 percent of agency-identified, non-core data centers, agencies will also be measured by the extent to which their core data centers are optimized for total cost of ownership. To enable this, the Task Force developed energy, facility, labor, storage, virtualization and cost per operating system metrics.

Instead of focusing on one metric, for example, server utilization, OMB worked with the FDCCI Task Force to develop total cost of ownership metrics, which measure performance against all the cost areas of data centers, rather than just one dimension (utilization) of one piece of data center equipment (servers). These metrics, which were published as part of the fiscal year 2014 PortfolioStat guidance, cover hardware, software, energy, human capital and facilities density. OMB and the 24 participating Federal agencies believe that working to meet the targets for these metrics puts the Government in a better position to address emerging taxpayer needs than just focusing on server utilization.

To date, agencies have closed 976 data centers with 3,665 planned for closure by the end of fiscal year 2015. This information is updated on a quarterly basis on Data.gov. OMB provides oversight through its PortfolioStat process, monthly FDCCI Task Force meetings, continuous budget development and execution discussions, and if necessary, other avenues.

IMPROVING THE IT DASHBOARD—TIMELINESS

Question. The IT Dashboard has been an important tool for improving transparency and accountability in Federal IT spending. However, GAO has made several recommendations to OMB for improving the IT Dashboard which have not yet been implemented. For example, the public version of the IT Dashboard is not updated during preparation of the President's budget request, which takes roughly 6 months. GAO also noted that the IT Dashboard was not updated for 15 months out of a recent 24-month period. This transparency tool should be kept accurate and up to date.

—Will you make sure that the IT Dashboard is updated throughout the year, including during budget deliberations, as GAO recommends?

Answer. Agencies have the ability to update and view the IT Dashboard on a continuous basis throughout the year. The IT Dashboard is also available for public viewing year round. However, agency data submissions to OMB during the budget-development period include both factual information as well as pre-decisional deliberative materials. It is important that OMB preserve the confidentiality of the deliberations that are at the core of the budget development process, which involves the identification, evaluation, and consideration of budgetary alternatives, as well as sensitive procurement data. The manner in which agencies submit this data makes it difficult, as a practical matter, to separate the factual information from the pre-decisional deliberative materials during this period. Given the existing data model and application design, OMB is currently not in a position to release, for example, CIO ratings and other “regularly-updated portions” during the budget development period without, at the same time, releasing pre-decisional deliberative materials.

IMPROVING THE IT DASHBOARD—ACCURACY

Question. Currently, the Dashboard posts data on whether major IT projects are on schedule and on budget. This information is useful to understanding the status of IT projects, but it does not fully represent the risk of major projects.

—How could OMB improve the IT Dashboard to provide more accurate and meaningful data on the status and risk of failure for major IT projects?

Answer. Agencies are required, at least monthly, to submit cost and schedule data on IT investments to the IT Dashboard. This information is useful to understanding the status of IT projects. Over the last few years, these submissions, along with related calculations, have been updated to provide more transparency. For example, cost and schedule performance was previously tracked via individual milestones within a major investment, which did not have the ability to link related activities together. With the introduction of projects and activities in fiscal year 2013, the IT Dashboard now reports cost and schedule performance at a more granular level, using parent-child activity groupings to reflect the work breakdown structure (WBS) used by agencies to manage the projects within their investments. Further, each year OMB provides feedback to agencies regarding their preliminary IT budget materials along with data quality related feedback. Since 2011, the IT Dashboard has included a data quality report for each investment and OMB reminds and encourages agencies to review this report regularly.

While OMB works with agencies directly to correct and resolve data issues when it finds missing data submissions or erroneous data, it also continuously looks for ways to further improve the data quality. For example, in the fiscal year 2016 capital planning guidance, OMB has initiated a new requirement that agencies identify at least three open risks for all active projects and submit the same to the IT Dashboard along with risk assessment and risk mitigation plan.

Further, risk management is the identification, assessment, and prioritization of risks (followed by coordinated and execution of resources to minimize, monitor, and control the probability and/or impact of these risks or to maximize the realization of opportunities). Merely identifying the investments risks, as OMB has stressed in PortfolioStats, TechStats and other means, is not a guarantee that the risks won't be realized. Managing risk is a continual, dedicated, iterative process that is never complete.

IT DASHBOARD—MAJOR INVESTMENTS RECLASSIFIED

Question. GAO's testimony notes that major IT investments were removed from the IT Dashboard. The Department of Energy, for example, apparently reclassified several of its supercomputer investments from "information technology" to facilities. A December 2013 GAO report describes such reclassifications as "representing a troubling trend toward decreased transparency and accountability."

—Why were the investments removed from the dashboard?

—What is OMB doing to provide better guidance to agencies for more accurate and consistent reporting?

Answer. Agencies have the responsibility to define the composition of their IT portfolio. As specified in the Clinger Cohen Act, agencies "provide for the selection of information technology investments to be made by the executive agency, the management of such investments, and the evaluation of the results of such investments."

To assist agencies in managing their IT portfolio, OMB provides guidance on information technology definitions. OMB uses the definition of "Information Technology" and "major information system" as defined in 40 U.S.C. 11101 and OMB Circulars A-11 and A-130. While all IT Investments are reported to the Federal IT Dashboard, major information systems have an increased reporting requirement. Each year during the development of the President's budget, OMB and agencies determine which IT systems and investments should be reported as major. Systems and investments that are deemed to no longer meet the definition of a major investment are downgraded to non-major and as such no longer subject to the increased OMB level oversight and reporting. In the example of the U.S. Department of Energy's (DOE) decision to not report supercomputers as a part of their IT Portfolio, OMB responded by explicitly included supercomputing as a policy requirement in the PortfolioStat Integrated Data Collection Common Definitions, which is available to all agencies on max.gov. Please see the policy statement below:

"This term refers to any equipment or interconnected system or subsystem of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by an executive agency. IT is related to the terms capital asset, IT investment, program, project, sub-project, service, and system. It also includes computers, ancillary equipment (including imaging peripherals, input, output, and storage devices necessary for security and surveillance), peripheral equipment designed to be controlled by the central processing unit of a computer, software, firmware and similar procedures, services (including support services), and related resources; but does not include any equipment acquired by a Federal contractor incidental to a Federal contract (40 USC 11101); however OMB policy includes in this supercomputers, software for mission systems, telecommunications, and satellite signal processing."

IT DASHBOARD—MAKING IT A MODEL FOR TRANSPARENCY

Question. The IT Dashboard Web site notes that this tool enables "Federal agencies, industry, the general public and other stakeholders to view details of Federal information technology investments." Yet the IT Dashboard itself is not subject to such transparency.

—How much is spent annually on operation of the dashboard?

—Will you commit to making details of the funding and delivery of the IT Dashboard completely transparent?

Answer. The IT Dashboard is an investment listed on the IT Dashboard, just like any other IT investment. The URL is: <https://www.itdashboard.gov/investment?buscid=622>. At \$450,000, it would not qualify as a "major" investment at most agencies. However, due to its high profile role in transparency, OMB keeps visibility into the performance of this investment at that level. Each year, OMB considers and evaluates whether additional investments to provide more timely information and capabilities to agencies, Congress and the public would yield the proper return on

investment. OMB looks forward to working with Congress to understand what capabilities would improve transparency.

INCREMENTAL DEVELOPMENT

Question. GAO and IT project management experts stress the importance of using incremental, modular development strategies when building major IT systems. Delivering small increments over time leads to greater success. Far too often, big complicated procurements lead to a failure that comes after years of cost overruns and delays. Current OMB policy calls for 6 month deliveries.

- What percentage of major Federal IT acquisitions are currently developed incrementally?
- What barriers exist that prevent all IT investments from being immediately restructured to an incremental development model?
- How can OMB further reduce risk of IT project failures by encouraging more incremental and modular procurement strategies?

Answer. As of July 2014, the Governmentwide average planned duration for delivering key IT functionality was 156 days. However, 12 agencies report average planned durations above this average and DOD reports an average of 456 days,¹ demonstrating that OMB and agencies need to continue to address this critical policy area.

To help all agencies meet this goal and move toward iterative IT development, OMB released Contracting Guidance to Support Modular Development in 2012. This guide assists agencies in implementing contracts that support modular development approaches.

To further this work, the Administration also released a Digital Services Playbook (please see response to question #1), which will help agencies deliver effective digital services in a flexible and iterative fashion. One of the “plays” in the playbook is around agile and incremental development. Play #4 states, “[w]e should use an incremental, fast-paced style of software development to reduce the risk of failure by getting working software into users’ hands quickly, and by providing frequent opportunities for the delivery team members to adjust requirements and development plans based on watching people use prototypes and real software. A critical capability is being able to automatically test and deploy the service so that new features can be added often and easily put into production. Following agile methodologies is a proven best practice for building digital services, and will increase our ability to build services that effectively meet user needs.”

However, there continue to be obstacles impeding agency adoption of proven methodologies, such as agile. These include determining the proper acquisition vehicle to use to perform agile, optimal ways to consider delivery metrics within agile contracting, and how agencies determine success or what a minimal viable product should be. That is why the Administration also released the TechFAR (please see response to question #1), which provides agencies tools and examples of how to use agile development methodologies with the current language of the FAR.

As needed, OMB will continue to work with agencies to develop and promulgate tools and guidance to aid in the use of these commercially-proven best practices.

CIO AUTHORITY OVER IT SPENDING

Question.

- How much of the Administration’s total fiscal year 2015 budget request for IT is directly controlled or overseen by the CIO at each agency?
- What is OMB doing to increase CIO authority over IT spending?
- How is OMB working with agencies to ensure that Federal CIOs are truly empowered to drive the types IT efficiencies and savings discussed during this hearing?

Answer. While OMB believes that current statutes provide agency CIOs with the proper authorities to ensure that IT is used as a strategic asset to improve service delivery, it’s clear these authorities have not been implemented in a consistent and effective manner across agencies. Direct CIO control over IT budget ranges from less than 1 percent to as high as 97 percent, with an overall average of around 25 percent.

To strengthen CIO authorities, OMB issued memorandum M–11–29, emphasizing the role that CIOs are required to have in the areas of governance, commodity IT, program management and information security. Additionally, OMB has made CIO authorities an integral part of PortfolioStat. As part of PortfolioStat sessions, OMB

¹Planned duration is taken from the Federal IT Dashboard Activities Data Feed, available to the public.

discusses with agencies their progress implementing CIO authorities. Additionally, OMB has and is committing to continuing a robust dialogue with Congress on whether legislation is required to fully implement CIO Authorities.

25 POINT IMPLEMENTATION PLAN TO REFORM FEDERAL INFORMATION TECHNOLOGY
MANAGEMENT

Question. In 2010, OMB issued the 25 Point Implementation Plan to Reform Federal Information Technology Management, which detailed action items for OMB and other agencies in order to deliver more value to the American taxpayer. Please provide an update on the current status of 19 action items assigned to OMB, the Federal CIO, and Federal CIO Council.

Answer. The status of each of the 19 action items assigned to OMB, the Federal CIO and the CIO Council are detailed below:

1. *Complete detailed implementation plans to consolidate data centers by 2015.*

In accordance with the IT Reform Plan, all agencies published their updated Data Center consolidation plans in 2011 and links to the plans were posted on CIO.gov. As part of PortfolioStat in 2013 and outlined in M-13-09 the Federal Data Center Consolidation Initiative (FDCCI) was integrated into PortfolioStat and agencies are no longer required to do separate implementation plans.

As outlined in M-13-09, dated March 27, 2013, to improve the outcomes of PortfolioStat and to advance agency IT portfolio management, OMB consolidated previously collected IT plans, reports and data calls into three primary collection channels:

- IRM Strategic Plans.* According to Circular A-130, “Information Resources Management (IRM) Strategic Plans should support the agency Strategic Plan required in OMB Circular A-11, and provide a description of how information resources management activities help accomplish agency missions, and ensure that information resource management decisions are integrated with organizational planning, budget, procurement, financial management, human resources management, and program decisions.” In addition to requirements established in OMB Circular A-130, IRM Strategic Plans must now be signed by the Agency COO and agencies will be required to address the specific requirements that are defined in Appendix A of this memorandum;
- Enterprise Roadmap.* In alignment with the IRM Strategic Plan, the Enterprise Roadmap documents an agency’s current and future views of its business and technology environment from an architecture perspective. It does so by reflecting the implementation of new or updated business capabilities and enabling technologies that support the agency’s strategic goals and initiatives. It also contains a transition plan to show the sequence of actions needed to implement the IRM Strategic plan. Moreover, it focuses on increasing shared approaches to IT service delivery across mission, support, and commodity areas; and
- Integrated Data Collection (IDC).* OMB has established an Integrated Data Collection channel for agencies to report structured information. Agencies will use this channel to report agency progress in meeting IT strategic goals, objectives and metrics as well as cost savings and avoidances resulting from IT management actions.

The IDC will draw on information previously reported under PortfolioStat, the FDCCI, the Federal Digital Government Strategy, quarterly Federal Information Security Management Act (FISMA) metrics, the Federal IT Dashboard, and selected human resource, financial management, and procurement information requested by OMB.

For additional context, please see response to Question #3.

2. *Create a Governmentwide marketplace for data center availability.*

The Governmentwide marketplace was established in June 2012, as referenced in the GAO Report from July 2012 on Data Center Consolidation, found at <http://gao.gov/assets/600/592696.pdf>.

3. *Shift to a “Cloud First” policy.*

In December 2010, the Administration instituted a “cloud first” policy, which states that if a secure, reliable, and cost effective cloud solution exists, agencies are required to implement that solution. To drive this effort, the Administration published the Federal Cloud Computing Strategy in February 2011. This strategy articulates the benefits, considerations, and trade-offs of cloud computing, provides a decision framework and case examples to support agencies in migrating towards cloud computing, highlights cloud computing implementation resources, and identi-

fies Federal Government activities, roles, and responsibilities for catalyzing cloud adoption.

Under this initiative, cloud computing has now become an accepted and integral part of the Federal IT environment. Agencies no longer question the utility and feasibility of cloud computing; but instead are seeking out opportunities to use cloud computing to reshape their IT portfolios to drive innovation, maximize return on investment, and improve cybersecurity. To track implementation of the policy, OMB requires agencies to report their cloud computing spending as part of the development of the budget. These figures can be found on the Federal IT Dashboard.

4. Develop a strategy for shared services.

The Administration released the Federal IT Shared Services Strategy on May 2, 2012. It provides organizations in the Executive Branch of the United States Federal Government (Federal Agencies) with policy guidance on the full range and lifecycle of intra- and inter-agency information technology (IT) shared services, which enable mission, administrative, and infrastructure-related IT functions.

5. Design a formal IT program management career path.

OPM and OMB launched the IT Program Manager Career Path in May 2011. This effort included the creation of a new basic title and definition for Information Technology Program Manager under the Technology Management Series, GS-2210 and the release of the IT Program Management Career Path Guide, which provides guidance to Federal agencies on the creation and improvement of the IT Program Management career path at each agency.

6. Require Integrated Program Teams.

Since fiscal year 2013 agencies have been required to provide the names and contact information for Integrated Program Teams members for all major IT investments as part of OMB's annual capital planning guidance Circular A-11 Exhibit 300.

7. Launch a best practices collaboration platform.

In March 2011, the CIO Council developed a Web-based best practices collaboration platform, originally located at cio.gov/bestpractices. Since then, the CIO Council has updated the platform and moved it to MAX.gov, an executive branch collaboration platform. This portal allows program managers to share and aggregate best practices, case studies, lessons learned, and other tools and resources that increase information sharing and enhance collaborative problem-solving and innovation.

8. Launch technology fellows program.

In 2011, OMB and OPM launched the Presidential Management Fellows Technology Fellows Program—a 2-year, rotational, paid fellowship. This fellowship program helped lay the groundwork for the Presidential Innovation Fellows (PIF) program, launched in 2012.

9. Enable IT program manager mobility across Government and industry.

The CIO Council, OMB and OPM launched the pilot IT Program Manager Mobility Program in April 2012 to encourage the movement of program managers across Government and industry. Although six agencies (the Department of the Navy, Department of Defense, Department of Homeland Security, Defense Information Security Agency, General Services Administration and the Department of Veterans Affairs) participated, interagency rotations were never completed. OMB will continue to look for ways to leverage the knowledge and expertise of Federal IT program managers.

10. Design and develop cadre of specialized IT acquisition professionals.

In 2011, the Office of Federal Procurement Policy (OFPP) issued guidance to Chief Acquisition Officers (CAOs), senior procurement executives (SPEs) and Chief Information Officers (CIOs) that provides guidance on designing and developing specialized IT acquisition cadres and developing IT best acquisition practices. The guidance describes how agencies can design and organize a cadre of contracting professionals, Program Managers (PMs), and Contracting Officer's Representatives (CORs) to ensure these functions work closely throughout the process to achieve program goals and strengthen the skills and capabilities of this specialized acquisition cadre to improve outcomes.

11. Identify IT acquisition best practices and adopt Governmentwide.

This requirement was accommodated under the memo, Guidance for Specialized Information Technology Acquisition Cadres, detailed above.

12. Issue contracting guidance and templates to support modular development.

On June 14, 2012, OMB issued Contracting Guidance to Support Modular Development to assist agencies in implementing modular development approaches.

13. Reduce barriers to entry for small innovative technology companies.

Under the Presidential Innovation Fellows program, the Small Business Administration (SBA) launched RFP-EZ as a pilot program on December 28, 2012. RFP-EZ is a Web-based application that is comprised of five different systems, all meant to make it easier for small businesses to sell their services to Government buyers, and enables agencies' contracting officers to quickly source low-cost, high-impact information technology solutions.

14. Work with Congress to create IT budget models that align with modular development.

OMB Guidance on Exhibits 53 and 300 Information Technology and E-Government require that projects for major Government IT investments should aim to deliver functionality within 6 months. In addition, the guidance requires agencies to indicate whether the completion of an activity provides a key deliverable or usable functionality and OMB asks agencies to report on whether modular development principles are applied in their acquisition planning. Efforts under this area have been subsumed by larger efforts underway to strengthen CIO authorities through proposed legislation, for example, the Federal Information Technology Acquisition Reform Act (FITARA) and the Federal Information Technology (FITSATA). OMB will continue working through its Information Technology Oversight & Reform appropriation to further examine how budgeting models could be updated, given the fluidity of technological change.

15. Develop supporting materials and guidance for flexible IT budget models.

On June 9, 2012, the CIO Council Best Practices Committee developed Summary Report on IT Budget and Funding Flexibilities. This report is available to agency CIOs across the Federal Government through the CIOC knowledge portal on Max.gov. Additional guidance on flexible budgeting has been incorporated into yearly budget guidance (see Fiscal Year 2013 Guidance on Exhibit 300—Planning, Budgeting, Acquisition, and Management of Information Technology Capital Assets pages 8 and 18, Fiscal Year 2014 Guidance on Exhibit 53 and 300—Information Technology and E-Government pages 28, 38, and 41 and Fiscal Year 2015 Guidance on Exhibit 53 and 300—Information Technology and E-Government pages 27, 39 and 42).

16. Work with Congress to scale flexible IT budget models more broadly.

To shift agencies toward IT budget models that align with modular development, OMB has integrated modular development in Guidance on Exhibits 53 and 300 Information Technology and E-Government. This includes requiring targets for projects to aim to deliver functionality within 6 months, having acquisition planning with modular development principles, and having innovative investments consistent with policy initiatives such as modular development. For example, the President's fiscal year 2014 budget requested that a new IT Modernization account be created at the Department of Labor to drive improved IT efficiency and effectiveness. This was subsequently enacted by Congress.

17. Work with Congress to consolidate Commodity IT spending under Agency CIO.

OMB M-11-29, Chief Information Officer Authorities clarified the primary responsibilities and authorities of Agency CIOs across several key areas, including Commodity IT. The memo states that, "Agency CIOs must focus on eliminating duplication and rationalize their agency's IT investments . . . the CIO shall pool their agency's purchasing power across their organization to drive down costs and improve service for commodity IT." OMB has held numerous discussions with Members of Congress on implementing M-11-29 and how those authorities should be codified in statute. Larger efforts to strengthen CIO authorities have been subsumed under several proposed bills, for example, The Federal Information Technology Acquisition Reform Act (FITARA) and the Federal Information Technology Savings, Accountability, and Transparency Act (FITSATA).

18. Reform and strengthen Investment Review Boards.

OMB has worked to reform and strengthen Investment Review Boards by revamping IT budget submissions and assisting agencies in standing up the TechStat model at the Department level.

Beginning with fiscal year 2013 budget submissions OMB developed a new framework for reporting IT investments. This new framework and guidance was designed

to increase the relevance of IT investment data, better align budget with management processes, improve data accuracy, and reduce the reporting burden on agencies by establishing a separate Exhibit 300B (see Guidance on Exhibit 300—Planning, Budgeting, Acquisition, and Management of Information Technology Capital Assets).

To assist agencies with oversight, OMB developed the TechStat Toolkit. The Toolkit provides a comprehensive guide for agencies to quickly implement TechStat, from templates for briefing staff and executives on the TechStat model to templates for documenting a detailed action plan for correcting problems. To date, thousands of agency employees have been trained through this toolkit on how to plan, structure and conduct TechStat sessions.

19. Redefine role of Agency CIOs and Federal CIO Council.

While current statutes provide Agency CIOs with the proper authorities to ensure that IT is used as a strategic asset to improve service delivery, these authorities have not been implemented in a consistent and effective manner across agencies. To address this, OMB issued memorandum M-11-29 emphasizing the role that CIOs are required to have governance, commodity IT, program management and information security. Additionally, OMB has made CIO Authorities an integral part of PortfolioStat. As part of PortfolioStat sessions, OMB discusses with agencies progress implementing CIO authorities.

In addition, M-11-29 required Agency CIOs to play a cross-agency portfolio management role through the Federal CIO Council. The CIO Council is the body for CIOs from across the Government to come together to share best practices and recommend changes to existing, or put forward idea for, new policy. Larger efforts are underway within Congress to strengthen CIO authorities and create more flexible funding models under FITARA and FITSATA.

PORTFOLIOSTAT AND COST ESTIMATES FOR MAJOR IT INVESTMENTS

Question. In OMB's PortfolioStat discussions with CIOs, how does OMB verify estimates for savings? What data on costs or source of cost estimates do you use to assess the validity of a budget request for a major program? Is there a formal or independent cost analysis, such as the Defense Department uses?

Answer. Savings reported during the PortfolioStat process are submitted by agencies to OMB's Integrated Data Collection (IDC) with a description of the activity that led to the savings, the amount saved, and the fiscal year associated with the saving. OMB then performs a qualitative review of the data submitted by agencies. During this process, OMB may follow up with agencies to request additional information regarding savings descriptions. The descriptions are then included in the Information Technology Oversight and Reform (ITOR) Quarterly Report to Congress. The report undergoes a multi-step review process where agency officials must confirm the accuracy of the data reported to OMB and Congress.

Furthermore, to validate costs regarding major programs, OMB may request and review a number of documents before approving such requests. For example, OMB may request to review an agency's formal business case for an investment, to include the project plan, program management plan, program performance metrics, and/or analysis of alternatives, to name a few. Additionally, OMB uses the annual budget process to assess the quality and performance of major programs each year.

OMB TECH FAR GUIDE

Question. Mr. VanRoekel, your testimony describes OMB's "Tech FAR" guide to highlight often underutilized ways that agencies can solicit IT tools and services.

—How will this new approach alter the acquisition process for IT projects?

—What metrics, such as quicker competitions of faster delivery times, could help evaluate if Tech FAR is working?

—Why is a separate FAR needed for IT projects? Should the FAR be updated and streamlined for all Federal acquisitions to avoid a proliferation of FAR guides for each type of acquisition?

Answer. To ensure Government has the right tech tools to do its job, and can be more agile and flexible to meet rapidly changing needs, the Administration launched the TechFAR Handbook, a guide that explains how agencies can execute key plays in the Playbook in ways consistent with the Federal Acquisition Regulation (FAR). This document will help agencies take advantage of existing authorities to procure development services in new ways that more closely match the modern software development techniques used in the private sector.

It is important to note that the TechFAR is not a separate FAR, but rather a guide that highlights the flexibilities in the FAR that can help agencies implement the best practices included in the Digital Services Playbook that would be accom-

plished with acquisition support. The TechFAR handbook is also not intended to usurp existing laws, regulations, or Agency policy.

The TechFAR Handbook states that it is “aligned with the Digital Services Playbook’s guidance to use contractors to support an iterative development process focuses on how to use contractors to support an iterative, customer-driven software development process.” In addition, the TechFAR “is not designed to be used for commodity IT purchases, especially where commercially available off-the-shelf items can be used as-is at a lower cost and lower risk to the Government.”

CLOUD COMPUTING AND UTILITY-BASED PURCHASING OF IT SERVICES

Question. The President’s budget notes that it includes investments to transform the Government IT portfolio through cloud computing, giving agencies the ability to purchase IT services in a utility-based model, paying for only the services consumed.

—How are Federal agencies using this utility-based model to both save costs and also provide more agility for Federal agencies?

—How is OMB coordinating this transition to cloud computing across the Federal Government?

Answer. Since OMB released its “Cloud First” policy in 2010, Federal agencies have shown progress in their movement to cloud platforms and in taking advantage of the cost savings, innovation, scalability and agility that cloud computing offers. Total cloud spending is projected to increase by 10 percent from fiscal year 2013 to the fiscal year 2015 budget, to nearly \$3 billion, with more cloud expected in the years to come as the cloud industry matures.

OMB has coordinated the migration to cloud solutions by encompassing an all of Government approach. In connection with our Federal Cloud Computing Strategy, the Administration launched FedRAMP—a Governmentwide program that provides a standardized approach to security assessment, authorization, and continuous monitoring for cloud products and services. Our FedRAMP program now has 18 CSP (cloud service providers) systems that have received FedRAMP Provisional ATO (authorization to operate), providing agencies a valuable tool to get them to the cloud quicker. OMB also works with NIST to continuously develop cloud security, interoperability and portability standards, the Department of State to engage international partners on cloud lessons learned, and GSA to stand up cloud computing acquisition vehicles. In addition, OMB’s ongoing PortfolioStat efforts with agencies continue to look for opportunities to shift to the cloud, utilize FedRAMP and take advantage of cloud computing to drive data center optimization.

SHARED SERVICES

Question. Shared services among agencies, particularly for “commodity” IT items, can be key to driving efficiencies and savings in IT. Shared Services is included in the President’s second term management agenda and is now a Cross-Agency Priority Goal.

—What are the barriers to providing such shared services in the Federal Government and what steps can OMB take to increase their use, especially for IT services?

Answer. Examples of barriers are (1) changing the culture in most agencies from program-silo’ed services to cross-cutting services within the entire agency and with other agencies; (2) agency-only funding models which hamper and handcuff agency flexibility to transfer money to another agency; and (3) procurement strategies that do not allow for other programs/bureaus/agencies to buy services off contracts negotiated by other agencies. The latter would enable the Government to leverage its buying power to negotiate lower costs as the number of agency adopters increases. Other barriers include technical challenges in scaling and/or integrating systems and applications, having authoritative architectures that provide process and technology standards, as well as cybersecurity and data privacy considerations as shared service delivery models are implemented.

Additionally, as part of the Smarter IT Delivery Initiative, OMB is reshaping the delivery of information technology already underway, as well as introducing new approaches and tools to transform the Government IT landscape. For details on work underway as part of this initiative, see answer to Question #1.

PORTFOLIOSTAT AND SOFTWARE LICENSES

Question. The PortfolioStat initiative includes efforts to consolidate so-called “commodity” IT or more basic, commercially available software, hardware, and cloud services.

—What savings have Federal agencies realized to date through consolidating software licenses?

- How many Federal agencies have a current inventory of their software licenses?
- How many Federal agencies do not have a current inventory of their software licenses?
- What should be the target number of Federal agencies that should have a current inventory of their software licenses?

Answer. To date, a little over \$500 million of reported PortfolioStat savings have been tied to enterprise software license consolidation efforts. For example, the Department of the Interior has saved \$5.8 million through their Enterprise eArchive System (EES), part of their eERDMS system. However, in discussions with agencies, they have indicated that software management savings are also captured in broader savings and consolidation efforts reported by agencies through PortfolioStat, hence the actual figure is higher, although the exact amount is unknown.

A recent GAO report, *Federal Software Licenses: Better Management Needed to Achieve Significant Savings* Government-Wide reviewed all 24 Chief Financial Officers Act agencies and analyzed their policies for managing software licenses as well as their software inventories. The report found that 20 of the major Federal agencies have developed policies for managing software licenses and have partially implemented inventories. Those policies will include, but certainly not be limited to, modes and mechanisms to ascertain the proper amount of licenses for any given agency.

DATA ACT AND IMPROVING COST ESTIMATES FOR IT INVESTMENTS

Question. How will OMB use data on actual expenditures for like systems collected under the DATA Act to improve cost estimates and assess budget requests on IT programs?

Answer. The DATA Act does not focus on tracking actual expenditures in IT system-by-system. Nor does the DATA Act change the processes by which agencies produce cost estimates and OMB reviews business cases for IT investments. Implementation of the DATA legislation will contribute to improved availability and quality of Federal spending information and increased transparency for IT and other spending.

RISK ASSESSMENTS OF IT INVESTMENTS

Question. What risk assessment criteria are agencies using to evaluate the risk associated with procurements of IT products and services? Do Federal agencies then communicate the assessment criteria or findings to the private companies impacted?

Answer. Risk assessments should include risk information from all stakeholders and should be performed at the initial concept stage and then monitored and controlled throughout the life cycle of the investment. OMB Guidance on Exhibits 53 and 300 Information Technology and E-Government, which is updated annually, for major investments requires agencies to list all significant project-related risks and operational-related risks that are currently open and provide risk assessment information.

For all active projects and components of IT investments that are in Operations a minimum of three open risks must be identified. When reporting these risks, agencies are required to describe the risk, the cause for the risk, identify a mitigation plan for the risk, list the impact (high, medium, low) and provide a mitigation plan.

In addition, agencies must categorize the risk in one of the following categories: (1) Schedule, (2) Initial costs, (3) Life cycle costs, (4) Technical obsolescence, (5) Feasibility, (6) Reliability of systems, (7) Dependencies and interoperability between this investment and others, (8) Surety (asset protection) considerations, (9) Risk of creating a monopoly for future procurements, (10) Capability of agency to manage the investment, (11) Overall risk of investment failure, (12) Organizational and change management, (13) Business (14) Data/info, (15) Technology, (16) Strategic, (17) Security, (18) Privacy, and (19) Project resources.

It is typical that agencies work internally with Federal staff or with contract resources supporting an investment to ensure there is a comprehensive understanding of all risks and the proper actions to remediate, mitigate, and manage that risk in a proactive manner.

PROCUREMENT ISSUES IN IT

Question. This committee heard testimony that agile, more incremental procurement strategies are especially appropriate for IT investments given the pace of technological change and innovation.

—What steps can OMB take, besides issuing the Tech FAR and “myth buster” guides, to help address complaints that IT procurement takes too long? How can Congress help?

Answer. This past spring, the Federal Chief Acquisition Officers Council and the CIO Council sponsored an open online dialogue to solicit input on how to reduce burdens and improve the efficiency and effectiveness of the Federal procurement process. A number of themes emerged, such as simplifying procedures for the acquisition of commercial items and taking better advantage of technologies to make it easier for small and innovative businesses and buying agencies to find one another, as we are doing with “FBOpen.” OMB is carefully reviewing the recommendations made in the dialogue, both for actions that can be taken administratively as well as areas where legislative support may be beneficial.

OMB’S “MYTH BUSTING” MEMO

Question. OMB issued a “myth busting” memo to help improve communication between industry partners and Federal agencies in the acquisition process. Yet my understanding is that Federal agencies are hesitant to talk to contractors.

—How can OMB reinforce the “myth busting” memo to improve appropriate engagement between contractors and Federal agencies?

Answer. The TechFAR encourages vendor engagement early on in the process and urges agencies to utilize tools such as industry days, Requests for Information (RFI), and draft Requests for Proposals (RFPs) or draft Requests for Quotation (RFQ). This type of engagement helps provide an avenue for the vendors to ask questions to ensure that they understand the process and what the Government is trying to procure. Releasing the TechFAR should help agencies move toward more vendor engagement, but we realize continual work is needed to combat cultural reluctance to engage with contractors. As a result, OMB will explore additional ways to improve communication between industry and Federal agencies such as releasing additional guidance and training opportunities.

IT SCHEDULE 70

Question. GSA’s IT Schedule 70 is the largest, most widely used acquisition vehicle in the Federal Government.

—How is the IT Schedule 70 helping or hindering the Government’s ability to acquire innovative technologies and IT services?

The General Services Administration is best equipped to answer this question.

QUESTIONS SUBMITTED BY SENATOR JERRY MORAN

ACCURACY OF IT DASHBOARD

Question. One of the important oversight tools to monitor how the Government buys, builds, and manages its major IT projects is the IT Dashboard. Unfortunately, I this tool is not updated accurately and on an ongoing basis. GAO reported that, as of December 2013, the public version of the Dashboard was not updated for 15 of the previous 24 months.

—Will OMB make the Dashboard publicly available year round, even during budget deliberations, as GAO has recommended?

—What is OMB doing to make sure that all major investments, like DOE’s supercomputers, are listed as major investments on the Dashboard?

Answer. Agencies have the ability to update and view the IT Dashboard on a continuous basis throughout the year. The IT Dashboard is also available for public viewing year round. However, agency data submissions to OMB during the budget-development period include both factual information as well as pre-decisional deliberative materials, much of which is at the core of the budget development process. This can include the identification, evaluation, and consideration of budgetary alternatives, as well as sensitive procurement data. The manner in which agencies submit this data makes it difficult, as a practical matter, to separate the factual information from the pre-decisional deliberative materials during this period. Given the existing data model and application design, OMB is currently not in a position to release, for example, CIO ratings and other “regularly-updated portions” during the budget development period without, at the same time, releasing pre-decisional deliberative materials.

In the OMB fiscal year 2016 Guidance on Exhibits 53 and 300, OMB also revised the definition of Information Technology to ensure that things like supercomputers were included. This definition is available to all agencies through max.gov and reads as follows:

“This term refers to any equipment or interconnected system or subsystem of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by an executive agency. IT is related to the terms capital asset, IT investment, program, project, sub-project, service, and system. It also includes computers, ancillary equipment (including imaging peripherals, input, output, and storage devices necessary for security and surveillance), peripheral equipment designed to be controlled by the central processing unit of a computer, software, firmware and similar procedures, services (including support services), and related resources; but does not include any equipment acquired by a Federal contractor incidental to a Federal contract (40 U.S.C. 11101); however OMB policy includes in this ‘supercomputers, software for mission systems, telecommunications, and satellite signal processing.’”

EXPLORING EMERGING CONTRACTING MODELS

Question. As this committee seeks to identify ways to decrease agencies’ reliance on appropriated funds for IT acquisitions, I am interested to learn about emerging, non-traditional contracting models, such as no-cost models, that agencies should be considering as one way to increase efficiencies and reduce costs. This committee’s fiscal year 2014 appropriations explanatory report directed OMB to produce a report on the use of alternative contracting models, including quantifying costs savings achieved through their use.

—Please provide an update on the status of this report.

—Can you offer examples of emerging models that could help?

Answer. OMB is working with agencies to gather information about their consideration of and experience with “no-cost” contracting for IT related-requirements, such as where an agency developing a public database authorizes the contractor to charge user fees to cover the cost and maintenance of the system, and expect to complete our initial analysis shortly. In addition, we are looking at how to promote greater use of performance-based contracting practices where agency solicitations focus on outcomes, rather than “how to” prescriptions, that in turn allow contractors to provide simpler, less costly proposals and more innovative solutions.

We are also encouraged by the Committee’s recent support for an “innovation set-aside” pilot that would allow agencies to conduct competitions or make directed awards, where appropriate, to new entrants. Such an authority could make it easier for agencies to reach high-tech companies that may not be expert in the rules for selling to the Government, but can provide cutting-edge lower cost solutions to meet the needs of the taxpayer. We look forward to working with this Committee and other Members of Congress as we consider new and better ways to provide best value to the taxpayer.

TECHSTAT REVIEWS

Question. TechStat Reviews were initiated by OMB to enable the Federal Government to either turnaround or terminate IT projects that are failing or are not producing intended results. According to GAO, 70 percent of OMB-led and 76 percent of agency-led TechStat reviews on major investments were considered medium to high risk at the time of the TechStat. OMB reported in 2011 that Federal agencies achieved almost \$4 billion in life-cycle cost savings as a result of TechStat sessions, although GAO has noted they were unable to validate OMB’s reported results.

—GAO has indicated OMB held only two TechStat sessions in 2013. Why weren’t more held?

—With 42 moderately high or high risk projects, what is the plan moving forward with OMB-led TechStat sessions, which have proven effective?

—What types of resources and personnel are necessary to conduct a TechStat review on high risk projects?

Answer. OMB works on a continual basis with agencies to conduct TechStats, be they led by the agency or by OMB itself. As part of the 25 Point Plan to Reform Federal IT Management, OMB worked with agencies to develop a TechStat toolkit, which was based on the rigorous processes OMB used to develop the TechStat model. The Toolkit provides templates, guides and other tools for an agency to successfully execute a TechStat. OMB believes that TechStats can be more effective as a tool, when managed and applied by agencies. This is because agencies are closer to the programs and are able to recognize the triggers and risk factors that an investment may be heading off course more quickly than OMB can. As a result, the agency can assemble a multidisciplinary team to review the investment and implement corrections.

Agencies have broad latitude to cancel failing investments. In fact, in many instances they are able to marshal administrative remedies faster than OMB. Agencies can terminate contracts and assign personnel to meet revised agency priorities. These types of changes are implemented very quickly. In addition, on at least an annual basis agencies convene investment review boards (IRBs) to review the IT investments of their respective institutions to ensure that they are delivering on the vision and consistent with the agreed upon strategy.

To conduct a TechStat, agencies and OMB need to dedicate time and resources across every discipline involved, including the program/mission offices, IT, acquisition, general counsel, human capital, performance, risk, and financial management. These can vary depending on the size of the investment, the maturity of the program and the problem(s) which needs to be addressed.

Additionally, as part of the Smarter IT Delivery Initiative, OMB is reshaping the delivery of information technology already underway and introducing new approaches/tools to transform the Government IT landscape. To do this, OMB is focused on a three-part agenda that will provide the Federal Government with: (1) the best talent (2) the best companies; and, (3) the best processes to drive outcomes and accountability.

As part of this effort, in August 2014, the Administration began piloting the U.S. Digital Service. This small team of America's best digital experts will work in collaboration with other Government agencies to identify and fix problems, to help upgrade the Government's technology infrastructure, and to make Web sites more consumer friendly. The team has one core mission: to improve and simplify the digital experience that people and businesses have with the U.S. Government by:

- Establishing standards to bring the Government's digital services in line with the best private sector services;
- Identifying common technology patterns that will help us scale services effectively;
- Collaborating with agencies to identify and address gaps in their capacity to design, develop, deploy and operate excellent citizen-facing services; and
- Providing accountability to ensure agencies see results.

The Administration also released for public comment two crucial components in its growing IT toolkit that will enable agencies to do their best work—the Digital Services Playbook and the TechFAR Handbook.

The Digital Services Playbook lays out best practices for effective digital service delivery and will serve as a guide for agencies across Government. To increase the success of Government digital service projects, this playbook outlines 13 key “plays” drawn from private and public-sector best practices that, if followed together, will help Federal agencies deliver services that work well for users and require less time and money to develop and operate.

To ensure Government has the right tech tools to do its job, and can be more agile and flexible to meet rapidly changing needs, the Administration also launched the TechFAR Handbook. The TechFAR Handbook is a guide that explains how agencies can execute key plays in the Playbook in ways consistent with the Federal Acquisition Regulation (FAR). This document will help agencies take advantage of existing authorities to procure development services in new ways that more closely match the modern software development techniques used in the private sector.

FEDRAMP

Question. On December 8, 2011, the Office of Management and Budget (OMB) issued a memorandum establishing the requirements for executive agencies to implement and use a standardized test and evaluation process to qualify cloud service providers for participation in the \$80 billion a year Federal IT marketplace called the Federal Risk and Authorization Management Program or FedRAMP. Industry estimates demonstrate that FedRAMP has saved the Government \$52.5 million since the program began operating in 2012. Considering that the Federal Government spent more than \$450 million on security authorizations and incurs annual costs in excess of \$9 billion to support more than 60,000 full-time employees to handle related security operations, full implementation of FedRAMP could potentially save both the Government and the industry significant dollars and time. The OMB memorandum requires that all Cloud Service Providers must be FedRAMP certified by June 4, 2014 in order to be eligible to partake in future Federal cloud service procurement opportunities or continue providing services in cases of existing providers. However, as the deadline quickly approaches, many have expressed concerns that OMB and GSA may not be prepared to effectively enforce the June 4, 2014 FedRAMP deadline. Failure to implement measures to ensure Federal agencies comply with this deadline would result in the continued acquisition of non-FedRAMP-

certified cloud service offerings, which would not only elevate the security risk to Federal IT systems, but also jeopardize the future of the FedRAMP program.

—What measures will be taken to ensure that agencies enforce the FedRAMP deadline on CSPs seeking Government acquisition opportunities after June 4, 2014?

—How will OMB and GSA support the FedRAMP program going forward to ensure this promising cybersecurity initiative is effectively implemented and the broader goals of the President's International Strategy for Cyberspace and Cloud First policy are ultimately achieved?

Answer. To clarify, the June 2014 deadline referenced in the question was not for cloud service providers, but rather for Federal agencies to update, evolve and refine their cloud authorizations, completed on a continuous basis as they implement and comply with the Federal Information Security Management Act (FISMA). To accomplish this goal, agencies would need to work CSPs, but the deadline was specific to Federal agencies, not industry. Moreover, the value proposition behind FedRAMP is the standardization of the assessing and authorizing cloud solutions, saving both the Government and industry time and resources.

OMB continues to work with the FedRAMP Project Management Office at GSA, the FedRAMP Joint Authorization Board (JAB), CSPs, and agencies on improvements that can be made to the FedRAMP process. For example, OMB is working with this community to improve inter and intra-agency trust of FedRAMP authorizations so that agencies do not unnecessarily duplicate the security authorization process. Additionally, OMB is working with this community to determine if there are ways to accelerate the approval process while still meeting the same quality standards that exist today. As further improvements are made to this program, OMB will brief the relevant committees on this progress.

OMB conducts oversight through normal channels, which include PortfolioStat and processes to support the annual FISMA Report, to gauge agency efforts to meet the June 2014 deadline. As necessary, OMB will work with agencies on corrective actions, for example, if the deadline isn't met. FedRAMP itself is one part of a comprehensive approach to accelerate the adoption of cloud computing across the Government to drive innovation, increase collaboration, and create service efficiencies.

FEDERAL DATA CENTER CONSOLIDATION

Question. In 2010, the Federal CIO established the Federal Data Center Consolidation Initiative to achieve a number of goals including reducing energy consumption; shrink the real estate footprint of Government data centers; reduce the cost of data center hardware, software, and operations; and increase IT security. OMB believes this effort will provide about \$3 billion in savings by the end of 2015.

—Please provide a status update of this effort.

—How many data centers have been closed to date and how much savings have there been?

—Which agencies are doing a good job with data center consolidation? Which agencies are not?

—What is OMB doing to make data center cost savings more transparent, as GAO has recommended?

Answer. In October 2010, based on agency submissions after the launch of the Federal Data Center Consolidation Initiative (FDCCI), OMB reported 2,094 data centers. As of July 2014, agencies have identified 9,540 data centers, of all types and sizes. This increase, explained in further detail below, is a result of a change in definition of a data center, and is not a result of construction of new data centers. The 9,540 is categorized into two populations, core (275 data centers) and non-core (9,265), further defined below.

It is important to note that since the FDCCI was launched there have been several important policy shifts within the data center space which provide some context for the increased 9,540 figure. First, in March 2012, based on a recommendation from the FDCCI Task Force (a CIO Council body), OMB changed the definition of a data center and removed all square footage and tiering requirements (the original definition required 500 square feet and meeting strict criteria from the Uptime Institute). Subsequently, this caused a dramatic increase in the number of data centers that agencies reported. As mentioned above, the jump was not due to construction of new data centers, as the Government maintains a net zero growth policy dating back to the summer of 2010. Further, the definitional change has provided additional transparency and insight into the Federal Government's actual data center footprint. The majority of the Government's data centers are smaller rooms and closets (less than 1,000 square feet), rather than large, stand-alone facilities, that one envisions when he/she considers what a Google, Facebook or Microsoft may employ.

Second, in March 2013, the FDCCI was integrated into PortfolioStat, the Government's IT portfolio management initiative. As these efforts converged, OMB instructed agencies to focus on optimizing those data centers that are pivotal to delivering taxpayer services, while closing duplicative and inefficient data centers. As a result, agency progress under the FDCCI is no longer solely measured by closures. Instead the FDCCI Task Force categorized agency data center populations into two categories: core and non-core. While the Government will continue to target the initial goal of closing 40 percent of agency-identified, non-core data centers, agencies will also be measured by the extent to which their core data centers are optimized for total cost of ownership. To enable this, the Task Force developed energy, facility, labor, storage, virtualization and cost per operating system metrics.

Instead of focusing on one metric, for example, server utilization, OMB worked with the FDCCI Task Force to develop total cost of ownership metrics, which measure performance against all the cost areas of data centers, rather than just one dimension (utilization) of one piece of data center equipment (servers). These metrics, which were published as part of the fiscal year 2014 PortfolioStat guidance, cover hardware, software, energy, human capital and facilities density. OMB and the 24 participating Federal agencies believe that working to meet the targets for these metrics puts the Government in a better position to address emerging taxpayer needs than just focusing on server utilization.

To date, agencies have closed 976 data centers with 3,665 planned for closure by the end of fiscal year 2015. This information is updated on a quarterly basis on Data.gov. OMB provides oversight through its PortfolioStat process, monthly FDCCI Task Force meetings, continuous budget development and execution discussions, and if necessary, other avenues.

With regards to agency efforts and transparency, OMB is currently working with agencies through the Federal CIO Council on publicly releasing the FDCCI core data center optimization metrics and PortfolioStat cost savings (currently reported through the Information Technology Oversight and Reform Quarterly Report to the House and Senate Committees on Appropriations).²

When you examine how agencies are doing with the FDCCI, you see examples of successes and failures across the Government. For example, the Census Bureau saved \$18 million from fiscal years 2011–2013 by utilizing cloud computing as a means to do data center optimization, DHS saved \$136 million in fiscal years 2012–2013 by decommissioning DHS component servers and migrating these services to DHS enterprise data centers, and EPA saved \$10 million in fiscal year 2012 by making better use of shared services through infrastructure optimization and consolidation. At the same time, more work remains to be done, including accurately calculating savings from where the costs of operating the facility are owned by multiple entities, and determining the true impact of energy efficiency efforts when there is a lack of metering. OMB will continue to work across the Government, the FDCCI Task Force and external bodies, including advocacy and industry groups to mitigate these challenges as the FDCCI continues.

FEDERAL CIO AUTHORITY

Question. How much of the total fiscal year 2015 budget request for IT is directly controlled or overseen by the Federal CIO at each agency?

Answer. While OMB believes that current statutes provide agency CIOs with the proper authorities to ensure that IT is used as a strategic asset to improve service delivery, it's clear these authorities have not been implemented in a consistent and effective manner across agencies. Direct CIO control over IT budget ranges from less than 1 percent to as high as 97 percent, with an overall average of around 25 percent.

To strengthen CIO authorities, OMB issued memorandum M–11–29, emphasizing the role that CIOs are required to have in the areas of governance, commodity IT, program management and information security. Additionally, OMB has made CIO authorities an integral part of PortfolioStat. As part of PortfolioStat sessions, OMB discusses with agencies their progress implementing CIO authorities. Additionally, OMB has and is committing to continuing a robust dialogue with Congress on whether legislation is required to fully implement CIO Authorities.

HHS CIO CONTROL OF HEALTHCARE.GOV

Question. How much influence did the HHS CIO, Frank Baitman, have over the Healthcare.gov project?

²Information Technology Oversight and Reform (ITOR) Quarterly Report to Congress, previously known as the IEEUIT Report.

Answer. The Department of Health and Human Services would be best equipped to answer this question.

QUESTIONS SUBMITTED TO HON. DAN TANGHERLINI

QUESTIONS SUBMITTED BY SENATOR TOM UDALL

18F

Question. How will you ensure that agencies will not be reluctant to request help from the General Services Administration's (GSA's) 18F team?

Answer. The 18F team will create demand through the delivery of successful outcomes. Agencies have a need for this type of work and if the 18F team is successful, it will be seen as an obvious place to go to partner with a talented team using methods that drive down costs and successfully deliver products and services on time.

GSA is actively promoting the work 18F is undertaking to build awareness and interest. The team is discussing its approach and potential projects with any agency or Federal entity that is interested, and is eager to address any questions. Ultimately, it is up to agency and program leadership to make the decision whether to use any service, product, or tool to better manage and build technology solutions.

SPECIAL HIRE AND PAY AUTHORITIES

Question. I am aware that 18F and the Digital Service are using schedule A hiring authority and that direct hire authority is available for Information Technology (IT) Management (Information Security) (GSA-2210, GS-9 and above, Government-wide and nationwide), but not all IT positions.

Given the high demand and competition for IT-related positions, and because the private sector can often pay higher salaries for such positions, do you believe that increased hire and pay authorities should be considered for IT positions that don't currently have any and if so, what types of positions would these be?

Answer. To date, the 18F program has used standard pay schedules and existing hiring authorities to build the team. GSA feels that an attractive mission and work that is highly valued across the organization can be an excellent recruiting tool for talent.

GSA has worked to improve the time to hire for the 18F organization as long hiring times dissuade many highly qualified candidates from taking positions in both the private and public sector. Technical talent does not stay on the market long.

Question. What other types of hiring and pay incentives beyond those now available to Government employees and agencies do you believe should be contemplated for recruitment and retention of IT specialists?

Answer. When hiring in a competitive area, like technology development, different tools may be needed to help hire and retain the most qualified and talented workforce possible. Working with the Office of Personnel Management, Federal agencies can better understand the authorities currently available to them for hiring and pay.

FIXING SAM.GOV WEB SITE FOR FEDERAL PROCUREMENT OPPORTUNITIES

Question. My office frequently receives requests from small New Mexico companies seeking to find and compete for Federal procurement opportunities. I like to point them to online tools such as GSA's System for Award Management or SAM Web site. But I have heard numerous complaints from small business owners about how complicated the SAM registration process is. And worse, one has to register before one can browse what Federal opportunities are even available. One former Presidential Innovation Fellow documented his frustrations with this by showing each step he encountered when trying to register on SAM. He has 77 slides showing the various steps and complications he faced. At one point near the end, his online application was blocked since he did not have a fax number.

I would like to ask three questions I hope you will answer "yes" to. Will you commit to fixing some of the problems with SAM by:

- Simplifying the SAM registration process?
- Allowing anyone to view and bid on Federal opportunities through SAM?
- Requiring companies to register fully once they are closer in the process to receiving a final award rather than at the start?

Answer. Yes, the GSA Integrated Award Environment (IAE) is committed to greater ease of use and has plans for a user-centric design to further modernize the System for Awards Management (SAM) and other IAE systems. It currently takes an average of 3 calendar days to complete registration in SAM, including external

Internal Revenue Service and Department of Defense validations. Some companies that experience problems with these tax and Commercial and Government Entity (CAGE) code validations take longer to register.

Currently, everyone already has the ability to view Federal opportunities without registering in SAM. Federal opportunities are posted at www.fbo.gov, and no SAM registration is required to view them. While SAM currently does not show Federal opportunities, GSA plans to incorporate fbo.gov into SAM in future development.

Similarly, it is already the case that companies are not required to register fully in SAM until they are close to award. Under Federal Acquisition Regulation (FAR) 4.1102(a), prospective contractors are only required to be registered in SAM prior to award, but not prior to submitting an offer. If a contractor has not registered in SAM prior to award, FAR 4.1103(a)(1) instructs contracting officers to contact potential awardees and instruct them to register in SAM prior to award.

FEDRAMP

Question. Mr. Tangherlini, can you discuss the current status of the FedRAMP effort and how many cloud service providers have received at least agency-level authority to operate under FedRAMP?

Answer. FedRAMP is fully operational. The status is summarized below.

As of June 9, 2014, 22 cloud services have received FedRAMP authorizations:

- 12 companies and 13 cloud services have received Joint Authorization Board (JAB) issued Provisional Authorizations to Operate (P-ATO).
- 2 companies and 3 cloud services have received agency issued Authorizations To Operate (A-ATO).
- 5 private cloud services have been authorized by the Department of Homeland Security (DHS).
- 1 Government agency (U.S. Department of Agriculture) has one cloud service that meets FedRAMP requirements.
- There are 13 Cloud Service Providers (CSPs) with 13 cloud services in-process for Joint Authorization Board authorization.

The authorized cloud services include both large and small businesses, and range across Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as Service (SaaS) offerings. At any given time, there are also upwards of a dozen systems being actively reviewed by the JAB for FedRAMP authorization, and many more in the pipeline. Agencies are also working on their own authorizations with numerous cloud service providers.

EFFECT OF NOT INVESTING IN IT BUDGETS

Question. For the past several years, IT budgets at agencies have been cut. This has affected projects that are designed to save money once implemented.

Can you discuss some of the effects at your agencies of the inability to implement planned projects?

Answer. GSA IT's budget has been decreasing since 2013, and is projected to continue this trend through fiscal year 2016. GSA's agency-wide consolidation of support functions has provided the Chief Information Officer (CIO) with opportunities to streamline the IT environment and reduce duplication, and, as a result, have been able to reduce associated costs. Efficiencies gained from consolidation have enabled the CIO to shift some resources from running legacy applications and infrastructure and invest in efforts to grow and transform GSA's business IT systems. That said, the realities of a constrained budgetary environment mean that the full benefits of initiatives such as cloud storage, virtual desktop integration, and data center consolidation are taking longer to realize.

Full funding of GSA's fiscal year 2015 request will enable us to further develop and operate transformative solutions that will result in long term savings to the agency. A key component in this transformation is the need to divest GSA of costly legacy solutions and environments, through careful and judicious investments in modern technologies, using common tools and platforms to replace duplicative systems, and to continue to invest in collaborative and cloud based technologies to allow GSA's vision of mobility.

Specifically, full funding will allow us to invest in solutions in the following areas:

- Open Data/Open Government initiatives.
- Data analytics platform to support Governmentwide data analytics.
- Ability to transform GSA IT to adopt agile development processes, resulting in more efficient delivery of IT services.
- Increased compliance and adoption of records and electronic document management practices.
- Increase mobility and automation of paper based business processes.

Our experience has shown that investing in such technologies and initiatives can not only greatly reduce overall agency costs, but also improve how GSA delivers on its mission. Our organization will continue to optimize our operations, reduce duplication of effort and resources, and enable increasingly efficient delivery of IT services.

25 POINT IMPLEMENTATION PLAN TO REFORM FEDERAL INFORMATION TECHNOLOGY MANAGEMENT

Question. In 2010, the Office of Management and Budget (OMB) issued the 25 Point Implementation Plan To Reform Federal Information Technology Management, which detailed action items for GSA and other agencies in order to deliver more value to the American taxpayer. Please provide an update on the current status of those action items assigned to GSA. For those action items not completed, please explain why.

Answer. (1) Stand-up contract vehicles for secure Infrastructure-as-a-Service (IaaS) solutions.

—The GSA Federal Acquisition Service (FAS) has established Blanket Purchase Agreements (BPAs) for Cloud Infrastructure as a Service (IaaS) with 11 industry partners.

—The providers on this Cloud IaaS BPA allow agencies to buy cloud storage, virtual machines, and Web hosting with an Authority to Operate (ATO) at the Federal Information Security Management Act (FISMA) moderate impact level.

—IaaS helps agencies realize cost savings and efficiencies while modernizing and expanding their IT capabilities without spending capital resources on infrastructure. Cloud-based infrastructure is rapidly scalable, secure, and accessible over the Internet—you only pay for what you use.

(2) Stand-up contract vehicles for “commodity” services.

—GSA has established Federal Strategic Sourcing Initiatives, including a Blanket Purchase Agreement for Wireless Service (http://www.gsa.gov/portal/category/100931?utm_source=FAS&utm_medium=print-radio&utm_term=wirelessfssi&utm_campaign=shortcuts).

(3) Reduce barriers to entry for small innovative technology companies.

—GSA established Business Breakthrough, workshops that offered companies up-to-date information on how to successfully navigate Government contracting (http://www.gsa.gov/portal/content/239329?utm_source=OCM&utm_medium=print-radio&utm_term=businessbreakthrough&utm_campaign=shortcuts).

—GSA created FBOpen, which streamlines the process of looking for opportunities with the Federal Government (<https://github.com/18F/fbopen>).

—GSA established BusinessUSA, a one-stop platform to make it easier for businesses to access services that help them to hire and grow (<http://business.usa.gov/>).

—GSA created Challenge.gov, allowing agencies to establish technical, scientific, ideation, and creative competitions where the U.S. Government seeks innovative solutions from the public (<https://challenge.gov/>).

(4) Launch an interactive platform for pre-request for proposal (RFP) agency-industry collaboration—GSA established the Better Buy Projects Pilots Wiki, an online dialogue with the acquisitions community to make Government buying more open and collaborative (<http://www.gsa.gov/portal/content/131483>).

GSA AND FEDERAL IT PROCUREMENT

Question. What is GSA doing to help Federal agencies procure IT systems and services and how can this be improved?

Answer. FAS’ Integrated Technology Service (ITS) is helping Federal agencies procure IT systems and services to meet the Government’s missions while saving taxpayer dollars.

In the first 7 months of fiscal year 2014, Federal, State, and local entities spent \$13.9 billion through GSA’s IT contracts. Documented savings for agencies using certain GSA programs are \$607 million between October 2013 and March 2014. We expect by the end of fiscal year 2014, agencies will save a total of \$1.3 billion using several of GSA’s IT contracts and resources. In addition, agencies using GSA contracts are avoiding the cost, time, and resources spent on setting up redundant contracts throughout Government.

For example, in our Network Services Networx program, ITS helped save Government 30 to 60 percent compared to benchmarked commercial pricing and Government saved, on average, 7.27 percent using GSA’s Reverse Auctions, with 87 percent of the awardees being small businesses. In addition, ITS’ software acquisition Blan-

ket Purchase Agreements (BPAs)—SmartBUY—saved the Government \$776.7 million in fiscal year 2013 by negotiating reductions in software prices.

In addition to providing agencies increased savings, ITS is focused on improved relationships and collaboration with our Government partners, increasing our customer service, and utilizing partnerships with both agencies and industry to find solutions to complex Government problems. For example, ITS has partnered with OMB and other Federal agencies to provide solutions for IT hardware (servers, laptops, desktops), cloud, mobility, and wireless devices. ITS has also been held up as a model of Government partnerships and reduced contract duplication through our partnership with the Defense Information Systems Agency for satellite communication services.

We plan to provide additional capabilities and expert resources to agencies through a shift in our delivery model (aka, category management). Simply, this means a shift from focusing on contracts to helping agencies buy IT better in terms of what they are trying to buy (telecom, outsourcing, cloud, hardware, etc). This strengthened market approach will help us better structure IT acquisitions to match business markets to Government needs, further minimize redundancies in Government purchasing, and reduce total cost of ownership to the Government and taxpayers.

In each of our programs, ITS has strong partnerships with agencies and industry who work with us to develop requirements, identify market offerings, challenges, and best practices that ultimately result in Governmentwide offerings meeting the majority of Government's needs in IT.

IT SCHEDULE 70

Question. GSA's IT Schedule 70 is the largest, most widely used acquisition vehicle in the Federal Government. How is the IT Schedule 70 helping or hindering the Government's ability to acquire innovative technologies and IT services?

Answer. The IT Schedule 70 program continues to help the Government acquire innovative technologies. As a part of the Multiple Award Schedules, Schedule 70 supports agencies acquiring innovative technologies and IT services by providing pre-competited, on-demand contracts with over 4,700 industry partners. The majority of these Schedule 70 partners are small businesses. The pre-competited Schedule 70 contracts help to reduce acquisition times and redundancy in agency acquisitions. These Schedule 70 benefits are available to help Federal, State, and local agencies.

IT Schedule 70 is designed to allow quick, unassisted agency acquisitions of technology. In addition, IT Schedule 70 offers greater flexibility so agencies can tailor their own requirements at the order level and leverage other acquisition approaches such as BPAs to eliminate the need for agency-specific and redundant indefinite delivery/indefinite quantity contracts. The schedules' flexibility gives agency contracting offices the choice to retain control of their procurements, including requirements development, evaluation, award and administration.

GSA is also working to help the Government's ability to acquire innovative technologies and services that have yet to be introduced to the Federal Government, through its Special Item Number (SIN) 132-99, Introduction of New Information Technology Services and/or Products. This would allow offerors and vendors to add new and innovative information technology products and services to IT Schedule 70 that would be otherwise unclassified and out of scope to the other SINs under the program. Moreover, it provides a new service, function, task, or attribute that may provide a more economical or efficient means for Federal agencies to accomplish their mission.

Finally, for agencies that require additional assistance, GSA also offers full-service IT acquisition options through our Assisted Acquisition Services.

QUESTIONS SUBMITTED BY SENATOR JERRY MORAN

SAM.GOV

Question. In 2008, the General Services Administration (GSA) began consolidating 10 Governmentwide acquisition data systems into one integrated system called the System for Award Management (SAM.gov). The intent of this approach was to enhance competition and innovation. The current SAM application includes four of those legacy systems. One of those systems is the Central Contractor Registration or CCR. Since the Government switched from CCR to SAM.gov, there has been a precipitous drop in the number of new businesses competing for Government contracts. The number of new registrations per month has dropped over 35 percent. I

have heard from small businesses interested in contracting with the Federal Government about the difficulty of navigating this process.

Can you explain the drop in registrations in switching from CCR to SAM.gov? Should we expect the same drop with regards to the other systems as they are integrated into the SAM.gov?

Is there a backlog to certify new registrants? If so, how can we reduce it?

What is GSA doing to improve that system so the burden for new entrants is not as high?

Answer. The System for Award Management (SAM), and the Central Contract Registration (CCR) before it, is the Governmentwide system where entities register to do business with the Federal Government, as required by the Federal Acquisition Regulation (FAR). The trend for registrants new to the process starting in 2007, does show an overall decline. There was a significant spike up in 2009, correlated with opportunities due to the American Recovery and Reinvestment Act of 2009. Specifically the new registrant numbers by fiscal year are:

CCR 2007: 113,277

CCR 2008: 124,163

CCR 2009: 191,159

CCR 2010: 150,640

CCR 2011: 143,482

CCR 7 months 2012: 62,487 SAM: 21,393 total: 83,880

SAM 2013: 78,571

SAM 2014: 32,562 5 Months

Importantly, with the launch of SAM, the Federal governance for the GSA Integrated Award Environment (IAE) affected the decision to change the requirements for registrants interested in procurement opportunities with the Federal Government. In CCR, registrants provided general information about the entity, contacts and the necessary financial information to receive payment. However, the Representations and Certifications were not required, and were input through the separate Online Representations and Certifications Application (ORCA).

At the time that the Government migrated from CCR to SAM, only 29 percent of all entities registered to receive procurement dollars had complete and current Representations and Certifications in ORCA. Today all procurement registrants in SAM have current and completed Representations and Certifications.

In July 2012, at migration there were approximately 221,000 active procurement registrants in CCR; only about 64,000 were compliant with Representations and Certifications. As of May 27, 2014, there were in excess of 355,000 registered entities for contracts and 100 percent of these were compliant for Representations and Certifications.

As is evidenced by the number of active registrants, excluding those only seeking grants and financial assistance, the number of eligible registrants has increased over time, as many historical registrants continue to renew their registrations.

The IAE continues to work with the Federal community and registrants to improve access and functionality including updating SAM with Helper Text in plain English, implementing an open data Application Programming Interface (API) for users to be able to track status in real time, and implementing live chat at the help desk. As the Environment transitions into the planned three-core with API future state, the common services platform will standardize user identity and access management, further enhancing ease of use.

FEDERAL GOVERNMENT PROPERTY BROADBAND ACCESS

Question. In 2012, Congress enacted the Middle Class Tax Relief and Job Creation Act (Public Law 112-96), which directed GSA to develop a master contract to govern the placement of wireless service antenna structures on buildings and other property owned by the Federal Government. This plan would both enhance the wireless industry's ability to deliver high speed wireless broadband service and create revenue for the Treasury. The law required this plan to be completed within 60 days of enactment. After little progress was made, President Obama issued an Executive Order directing agencies to tackle this assignment. Yet, it is my understanding that more than 2 years after the deadline, this work is still not complete.

What is the status of this project?

Answer. GSA drafted the master contract within the 60-day period mandated by section 6409 of Public Law 112-96. Given that the contract is to be used by executive landholding agencies to facilitate streamlined contracting with private sector telecommunications carriers for the installation of the carrier's antennas on Federal facilities, the master contract is based on the contract GSA uses to outlease space for private sector antenna installations at GSA controlled facilities.

Question. When do you expect that a master siting contract will be finished and available for use?

Answer. The master contract is finished and available for use by executive land-holding agencies to document an agreement between the United States and the private sector telecommunications company concerning the installation of the carrier's antenna on Federal property. The contract is publicly available at <http://www.gsa.gov/portal/content/191703>.

FEDERAL FLEET MANAGEMENT

Question. According to a July 2013 Government Accountability Office (GAO) report, Federal agencies spend about \$3 billion annually to acquire, operate, and maintain 450,000 Federal vehicles. President Obama has directed agencies to determine their optimal fleet inventories and set targets for achieving these inventories by 2015 with the goal of a more cost-effective fleet. GAO offered a series of recommendations to achieve this goal, and notes that GSA agreed with the recommendations.

Has the GSA completed its development and published guidance for agencies on estimating indirect fleet costs? If so, could you please provide a status update?

Answer. GSA has completed its development and published guidance for agencies on estimating indirect fleet costs. We issued GSA Bulletin FMR B-38, Indirect Costs of Motor Vehicle Fleet Operations, on February 20, 2014. This bulletin provides guidance to Executive agencies regarding the estimation, identification, categorization, and reporting of indirect costs of operating a fleet of motor vehicles.

Question. What is the amount of cost savings Congress and taxpayers can expect from a smaller, more modern fleet?

Answer. GSA is tasked with coordinating a Governmentwide process whereby agencies implement vehicle allocation methodologies for right-sizing their fleets. Right-sizing is not solely about reducing costs, it is about configuring the fleets to optimally support the agencies' missions. This may entail eliminating unnecessary vehicles, which would reduce their associated costs, but it also may encompass acquiring more appropriate vehicles and shifting between vehicle types. For example, an agency may find that a minivan is more efficient use of resources than a large sport utility vehicle (SUV); or a particular mission may be more effectively achieved by using a low greenhouse gas emitting compact sedan rather than a larger passenger vehicle. In 2013 a significant shift to subcompact sedans from large, medium, and compact sedans occurred with subcompacts increasing by 6,501 vehicles while the large, medium, and compact sedan categories were reduced by 10,915 vehicles.

Additionally, the agencies are under statutory and other mandates to meet targets for acquiring alternative fuel vehicles, consuming more alternative fuel and less petroleum, meeting environmental goals, and enhancing safety. While some of these efforts may reduce costs in the long run, in some situations they may actually increase up-front costs. While cost-consciousness and reducing waste and inefficiency is always a major goal, it is balanced by the need to invest in a more modern, safe, and efficient fleet.

Question. How many Federal employees currently support the acquisition, operation, and maintenance of the Federal vehicle fleet?

Answer. The acquisition, operation and maintenance of the Federal vehicle fleet are the responsibility of the individual agencies. Although agencies report overhead costs to GSA, the number of Federal employees supporting these areas are determined by the individual agencies and not reported to GSA. In some agencies fleet management is often an ancillary function performed by employees with other duties.

Question. Of the \$3 billion overall cost of fleet management, how much can be attributed to acquisition of new vehicles? What percentage can be attributed to operation of the vehicles? How much does the Government spend to maintain the fleet?

Answer. Agencies' spending specifically to purchase vehicles (excluding the United States Postal Service (USPS)) in 2013 was \$1.06 billion, a 10-year low, down from over \$1.9 billion in 2009. Overall fleet costs (also excluding USPS) were \$2.825 billion in 2013, consisting of \$875 million (31 percent of the total) in depreciation, \$339 million (12 percent) in maintenance, \$117 million (4 percent) in indirect costs, \$32 million (1 percent) for commercial leases, \$1.009 billion (36 percent) to lease vehicles from GSA, and \$452 million (16 percent) for fuel.

Question. Has GSA explored using private sector technologies that would allow Federal employees to check out vehicles, much like leading short-term vehicle rental companies?

Answer. Following the lead of popular commercial car sharing ventures, GSA is actively pursuing similar initiatives to help Federal agencies reduce costs, improve

efficiencies, optimize vehicle use and support sustainability. GSA's goal is to drive agency cost savings while allowing agencies to focus resources on their mission instead of ancillary services.

GSA is interested in being able to provide its Federal customers a variety of transportation solutions designed to fit a customer's vehicle needs. For example, for customers that only need transportation intermittently, it may be more beneficial to use a car sharing service in lieu of renting, leasing and/or purchasing a vehicle.

GSA has launched several car sharing initiatives and pilots to identify which is in the best interest of the Government. In December 2013, GSA launched a pilot for a car sharing service through the newly developed GSA Fleet Vehicle Dispatch Reservation Module. The module allows customers to combine GSA fleet leased vehicles and agency owned vehicles in GSA's Federal Fleet Management System within a given agency into motor pools, schedule vehicle reservations, dispatch vehicles to drivers, and generate reservation and utilization reports. Agencies can track vehicle utilization and determine where one could potentially reduce the number of vehicles to increase their fleet efficiency and productivity through this car sharing solution. After a successful pilot period, GSA launched the tool for Governmentwide use on March 31, 2014.

Another pilot is planned to supplement the Federal fleet by utilizing commercially available hourly rentals that offer pilot customers the ability to reserve a car by the hour or by day, to meet official business needs requiring local travel. A third pilot will focus on utilizing car sharing technology on existing GSA fleet vehicles located in the downtown Chicago area. The goal is to research, procure, test, and evaluate various car sharing technologies and tools. The results from these car sharing solutions will be evaluated to identify best practices for vehicle sharing, examine business models and technologies that facilitate car sharing, and identify any obstacles that may inhibit agencies from effectively sharing vehicles.

Question. Has GSA considered installing technologies to monitor driving patterns and improve the operation and usage of vehicles?

Answer. GSA is dedicated to bringing Federal customers innovative products and services to more efficiently and effectively manage their motor vehicle fleets. GSA continually researches new technologies aimed to improve the overall efficiency of the Federal fleet. Recently GSA entered into a partnership with the National Highway Traffic Safety Administration (NHTSA) to ensure the Federal fleet is a leader in safety technology. Together, a pilot will be conducted to focus on the effectiveness of three main technologies: forward collision alert, lane departure warning and back up camera systems. Piloting these advanced vehicle technologies affords GSA and NHTSA the opportunity to implement measures, receive immediate feedback, and conduct analysis that have the potential to mitigate poor driving behavior.

Additionally, GSA is beginning to offer vehicle monitoring solutions to Federal agencies that will have the capability to collect information regarding vehicle locations, driver behavior, utilization, and unsafe driving practices.

GSA IT SCHEDULE 70

Question. GSA developed IT Schedule 70 as an acquisition vehicle for agencies to have direct access to products and services from more than 5,000 certified industry partners. How is GSA's Schedule 70 helping or hindering the Government's ability to acquire innovative technologies and IT services?

Answer. The IT Schedule 70 program continues to help the Government acquire innovative technologies. As a part of the Multiple Award Schedules, Schedule 70 supports agencies acquiring innovative technologies and IT services by providing pre-competited, on-demand contracts with over 4,700 industry partners. The majority of these Schedule 70 partners are small businesses. The pre-competited Schedule 70 contracts help to reduce acquisition times and redundancy in agency acquisitions. These Schedule 70 benefits are available to help Federal, State, and local agencies.

IT Schedule 70 is designed to allow quick, unassisted agency acquisitions of technology. In addition, IT Schedule 70 offers greater flexibility so agencies can tailor their own requirements at the order level and leverage other acquisition approaches such as Blanket Purchase Agreements (BPAs) to eliminate the need for agency-specific and redundant indefinite delivery/indefinite quantity contracts. The Schedules' flexibility gives agency contracting offices the choice to retain control of their procurements, including requirements development, evaluation, award and administration.

GSA is also working to help the Government's ability to acquire innovative technologies and services that have yet to be introduced to the Federal Government, through its Special Item Number (SIN) 132-99, Introduction of New Information Technology Services and/or Products. This allows offerors and vendors to add new

and innovative information technology products and services to IT Schedule 70 that would be otherwise unclassified and out of scope to the other SINs under the program. Moreover, it provides a new service, function, task, or attribute that may provide a more economical or efficient means for Federal agencies to accomplish their mission.

Finally, for agencies that require additional assistance, GSA also offers full-service IT acquisition options through our Assisted Acquisition Services.

Question. What is GSA doing today to ensure that the IT schedules are efficient, competitive, and delivering value to the agency customers and taxpayers?

Answer. GSA is currently undertaking a large scale effort to reshape and improve the Multiple Award Schedule (MAS) program to ensure the IT Schedule 70 contracts are efficient, competitive, and deliver value to agency customers and taxpayers. These changes are a direct result of customer feedback, the evolving acquisition environment, and changing market conditions.

The IT Schedules Program is also focused on increasing competitiveness through better pricing and price visibility, increased compliance, and meaningful and timely program data. All GSA Schedules are migrating to a Dynamic Pricing Model to reduce prices and pricing variability across Schedules contracts and demonstrate savings to customer agencies. The goal of Dynamic Market Pricing is to provide relevant transactional level data at both the MAS and order level so agencies can negotiate better pricing. This is achieved through capturing transactional data collected on various Federal Strategic Sourcing Initiative (FSSI) Solutions at the Blanket Purchase Agreement (BPA) level to reduce price variability and increase data quality and spend analysis. In addition, "Raising the Bar" language was added to MAS solicitations (April 2014) that mandated broad offering availability for products and services, part number standardization, and Most Favored Customer (MFC) pricing, which alone does not constitute fair and reasonable pricing. GSA is also implementing services labor category standards and pricing and addressing manufacturer part number standardization via a Mass Modification for all SINs with products to existing contractors.

While the above actions also deliver greater value to agencies, GSA is taking additional steps to implement solutions to enhance customer service and make MAS easier to use. GSA has added a new live chat feature on the Web site and a centralized toll-free number and e-mail address to make it easier and more efficient for agencies to contact GSA to get answers and needed support. GSA has launched the IT Solutions Navigator tool and other self-service options to help agencies find the best IT contract for the specific requirements. GSA is exploring leveraging e-commerce platforms to ensure customers have the information they need to make informed buying decisions.

GSA TECH INITIATIVE 18F

Question. GSA has launched a new pilot program called 18F. My understanding is this program is designed to help identify and address targeted IT challenges in Government and help provide solutions.

Can you please share the long-term strategy behind 18F?

Answer. 18F will be successful in the short term if we (1) properly scale the team to meet customer demand; (2) partner with several additional agencies and ship great products for those agencies early and often; and (3) provide a measurable increase in our agency partners' ability to deliver on their missions. In the long term, we hope our efforts will serve as a successful model for procuring, building and delivering digital services that are the norm in Government IT.

Question. How many employees does GSA plan to hire?

Answer. Currently, 18F has budgeted for 54 full time staff in fiscal year 2014. The success of the program will dictate how many staff GSA will eventually hire in the long term. 18F operates as a reimbursable service, and, if there is sufficient demand, the organization will scale appropriately.

Question. How does this program help create stronger competition in the acquisition market?

Answer. 18F will create stronger competition in the acquisition marketplace in three ways. First, 18F hopes to demonstrate that agile software development and lean practices are a more successful method of building and delivering technology. Success will lead more agencies to adopt these methods bringing companies into the marketplace who specialize in this type of work. Second, by demonstrating a less risky way of delivering technology, agencies will be less reluctant to modernize and develop information technology systems and services, opening up Federal expenditures that have been dedicated to operations and maintenance. Last, 18F will create demand for well functioning digital services from the public. To meet this growing

demand, agencies will need to acquire appropriate services, platforms, and even infrastructure, which will increase competition and grow the acquisition marketplace.

Question. Can you please identify agencies who have reached out to 18F with specific IT challenges or projects? How many projects were there? What is the capacity of 18F to assist agencies in this process?

Answer. Currently, there are 16 agencies that have made serious inquiries with 18F on projects that would benefit from the partnership. Eight of those agencies have either signed or are in the process of signing an interagency agreement. 18F is in various stages of business development on 24 projects across those agencies. 18F will only take on projects that it is confident in being able to meet the needs of the agency partner. If demand increases for 18F's services, GSA will work to staff the program accordingly.

QUESTIONS SUBMITTED TO HON. KATHERINE ARCHULETA

QUESTIONS SUBMITTED BY SENATOR TOM UDALL

INCREASED PAY AND HIRE AUTHORITIES

Question. I am aware that 18F and the Digital Service are using schedule A hiring authority and that direct hire authority is available for Information Technology (IT) Management (Information Security) (GSA-2210, GS-9 and above, Governmentwide and nationwide), but not all IT positions.

Given the high demand and competition for IT-related positions, and because the private sector can often pay higher salaries for such positions, what increased hire and pay authorities are under consideration for IT positions that don't currently have any and what types of positions would these be?

What other types of hiring and pay incentives beyond those now available to Government employees and agencies should be contemplated for recruitment and retention of IT specialists?

Answer. The Office of Personnel Management (OPM) is reviewing current authorities to determine what additional flexibilities may help agencies, as well as ensuring that agencies are aware of the tools already available to meet staffing needs through existing flexibilities, authorities, and incentives. Agencies have considerable authority to provide additional direct compensation in certain circumstances to support their recruitment and retention efforts, or to request further flexibilities from OPM. Such compensation tools include special rates, critical pay, student loan repayments, and recruitment, relocation, and retention incentives.

For example, OPM has established higher special rates of pay for IT specialists, computer engineers, and computer scientists to address staffing problems in certain entry/developmental grades within the General Schedule pay system. While the fiscal year 2013 the annual quit rate for IT specialists was 1.6 percent (below the Governmentwide average), special rates and other existing flexibilities can be used to target subpopulations of IT specialists, such as cyber security experts, where there may be staffing challenges.

EFFECT OF NOT INVESTING IN IT BUDGETS

Question. For the past several years, IT budgets at agencies have been cut. This has affected projects that are designed to save money once implemented. Can you discuss some of the effects at your agency of the inability to implement planned projects?

Answer. OPM released a Strategic IT Plan in March, fulfilling a commitment to strive to modernize IT that I made during my confirmation process. OPM developed the Strategic IT Plan to ensure our IT supports and aligns to our agency's strategic plan and that OPM's mission is fulfilled. It provides a framework for the use of data throughout the human resources lifecycle and establishes enabling successful practices and initiatives that define OPM's IT modernization efforts. Some parts of the plan will require us to shift resources, while others may require additional funding. OPM will develop project-specific work plans within the leadership and governance structure established by this strategic plan. In developing these work plans, OPM will determine funding needs and opportunities for cost avoidance and savings.

25 POINT IMPLEMENTATION PLAN TO REFORM FEDERAL INFORMATION TECHNOLOGY
MANAGEMENT

Question. In 2010, the Office of Management and Budget (OMB) issued the 25 Point Implementation Plan To Reform Federal Information Technology Management, which detailed action items for OPM and other agencies in order to deliver

more value to the American taxpayer. Please provide an update on the current status of those action items assigned to OPM. For those action items not completed, please explain why.

Answer. OPM launched a Project Manager Community of Practice (PM CoP) that fosters the development of IT program and project managers. OPM has collaborated with the Project Management Institute (PMI) so that participants can earn continuing education units through training, presentations, and mentoring to earn or maintain Project Management Professional (PMP) certification. Likewise, using the IT Program Management Career Path Guide, OPM focuses on developing new project managers through training, mentoring and providing hands on experience with projects. The PM CoP also partnered with the General Services Administration (GSA) for implementation of the Federal Acquisition Institute Training Application System (FAITAS) tool so OPM can track PM development and certifications.

Working with the Chief Information Officers (CIO) Council and OMB, OPM has developed the IT Program Management Career Path Guide and recommended training curriculum for the newly established IT Program Management job title. It builds upon the IT Program Management Competency Model and provides guidance to Federal agencies on the creation and improvement of the IT Program Management career path.

OPM also updated the Job Family Standard for the GS-2210 series to include the IT Program Manager definition which covers work that involves managing one or more major multi-year IT initiatives of such magnitude they must be carried out through multiple related IT projects.

OPM worked with the Office of Management and Budget (OMB) to add the title IT Program Manager to the Job Family Standard for Information Technology, and to develop IT Program Manager competencies and the IT Program Management Career Path Guide. The Federal Acquisition Certification for program and project managers (FAC-P/PMs) builds upon this work and adds core-plus specialized certifications, the first one being in the area of IT. This development supports the administration's Smarter IT Delivery Agenda. The Smarter IT Delivery Agenda aims to increase customer satisfaction with top Government digital services; decrease the percentage of Federal Government IT projects that are delayed or over budget; and increase the speed with which qualified talent is hired and deployed to work on Government IT projects.

Finally, agencies can use the Intergovernmental Personnel Act to allow for the temporary assignment of personnel, including IT program managers, between the Federal Government and State and local governments, colleges and universities, Indian tribal governments, federally funded research and development centers, and other eligible organizations.

QUESTIONS SUBMITTED BY SENATOR JERRY MORAN

DEMOGRAPHIC CHALLENGES OF AGING INFORMATION TECHNOLOGY WORKFORCE

Question. The Federal information technology (IT) workforce is aging. According to the Office of Personnel Management (OPM), 46 percent of the more than 80,000 Federal IT workers are 50 years of age or older, and more than 10 percent are 60 or older. Just 4 percent of the Federal IT workforce is under 30 years of age.

What are we doing to address the demographic challenges with regards to the IT workforce?

Answer. The current Initiative to Close Cybersecurity Skill Gaps is led by the OPM Director along with the subject matter expertise provided by the initiative's sub-goal leaders from the Office of Science and Technology in the Executive Office of the President and the National Initiative for Cybersecurity Education. In addition, OPM is an active collaborative partner within the Federal cyber and human resources communities; the Chief Human Capital Officers Council; the Chief Information Officers Council; the National Initiative for Cybersecurity Education (NICE) project; and among Federal agencies to raise awareness about the vital need for strategic workforce planning across Government and within agencies to ensure that agencies have the capability to obtain the IT and cybersecurity workforce they need now and in the future.

Strategic workforce planning includes insightful decisionmaking that relies on evidence-based analyses such as the demographic challenges cited above; the knowledge that the national labor market itself is shrinking; and that our talent pipeline in IT and cyber skills need strengthening. IT and cyber hiring and development opportunities, given the current economic environment, are key decisions each agency

is addressing, as the competition nationally and globally for these skills will be fierce over the next decade.

OPM is also working with technology departments at colleges and universities to ensure that the talent pipeline is growing and will have the IT and cyber skills needed by the agencies. In addition to promoting IT and cyber disciplines, OPM reaches out to the education and academia sector to increase its awareness of Federal employment opportunities and the Federal job application process. Student internships can start as early as the high school level and graduates of community colleges and universities are also encouraged to apply for employment. Just this past year, OPM launched a new outreach effort to recruit and onboard science, technology, engineering, and mathematics (STEM) graduates; the Presidential Management Fellowship (PMF) program's new PMF-STEM portfolio attracts applicants with IT and cyber skills in disciplines such as computer science, computer engineering and computational analytics.

In working with Federal hiring officials, our outreach guidance provides agencies with up-to-date information on how to message their opportunities, encourages them to work within their communities to strengthen the local talent pipeline, the availability of hiring and pay flexibilities, and provides workforce planning tools that enable them to plan for and get the workforce they need. Our objective, given the current fiscal environment, is to raise and leverage the capabilities of the Federal agencies to get the IT and cyber workforce they need, now and in the future, when the national and global labor markets are progressively smaller and more competitive. This outreach also allows the Federal Government to reach communities like the veterans community. In fiscal year 2012, military veterans comprised 28.9 percent of total hires, marking the highest percentage of military veterans newly hired into the Federal Government in over 20 years. As part of our efforts on recruitment for cyber positions, OPM has worked with many partners, including State programs that service veterans.

Since mid-February, OPM has made presentations (face-to-face or virtually) at 36 schools, 14 of which are participants in Scholarship for Service (CyberCorps), and 13 of which are Centers of Academic Excellence Institutions. OPM has also developed a detailed outreach plan and set a goal of partnering with a total of 22 universities and colleges prior to the end of fiscal year 2014 in order to expand our recruitment and outreach presence.

OPM is also promoting academic alliances with universities and colleges so that our existing workforce can retain, enhance or develop their skills. An example is OPM's recent 2014 alliance with the University of Maryland University College that offers discount tuition opportunities to Federal employees and their dependents. Similar efforts like this are under consideration with universities and colleges that offer degrees and coursework in IT and cyber skills as well. In addition, the National Initiative for Cybersecurity Education, with OPM and the Chief Information Officer Council as collaborative partners, offers a clearinghouse resource for our employees to use in planning for and getting the training they need.

INTERDISCIPLINARY WORKFORCE

Question. Increasingly, private sector companies have a workforce that is interdisciplinary in that they understand both business and technology. In comparison, many companies and former Government employees have complained to my staff about the lack of interdisciplinary skills in the Federal workforce—the program managers have only program management skills. The IT professionals are only familiar with IT. Acquisition workforce is trained in acquisition but not the other areas.

To what extent are training funds in your budget designed to help develop a workforce that increasingly requires interdisciplinary skills?

Answer. Cross-fertilization of technical professional skills such as IT, cyber and acquisition is part of the career development models and programs for Federal agencies. OPM along with the Federal agencies and the various interagency councils encourage IT, cyber and acquisition employees to consider and pursue career development opportunities that strengthen their skills in program and project management and that develop their familiarity in other disciplines akin to their work environment. For example, since 2010 when the Office of Management and Budget (OMB) issued the 25 Point Implementation Plan To Reform Federal Information Technology Management, OPM and the Federal agencies have taken the following actions that recognize this need for cross-fertilization of business acumen with the technology IT and cyber skills.

—OPM designed and issued a formal IT program management career path. Working with the Chief Information Officers (CIO) Council and OMB, OPM's IT Pro-

gram Management Career Path Guide recommends training curriculum for the newly established IT Program Management job title. It builds upon the IT Program Management Competency Model and provides guidance to Federal agencies on the creation and improvement of the IT Program Management career path.

—OPM updated the Job Family Standard for the Information Technology 2210 occupational series to include the IT Program Manager definition which covers work that involves managing one or more major multi-year IT initiatives of such magnitude they must be carried out through multiple related IT projects.

—OPM provides guidance to and encourages Federal agencies to use the Intergovernmental Personnel Act to allow for the temporary assignment of personnel, including IT and cyber program managers, between the Federal Government and State and local governments, colleges and universities, Indian tribal governments, federally funded research and development centers, and other eligible organizations.

This cross-fertilization of business and program management disciplines for the IT, cyber and acquisition disciplines is also encouraged by the Federal leadership and agencies in other key mission critical occupations such those in the science, technology, engineering and mathematics disciplines.

OPM revised its Hiring Managers Applicant Satisfaction Survey for fiscal year 2014 so that cyber hiring managers can report how satisfied they are with the quality of cyber candidates for their vacancies and identify what type of cyber work is being addressed in their vacancies. This will give us insight into the demand and flow of cyber work in our hiring actions and development activities and will enable us to be strategically focused on getting and retaining the high caliber IT and cyber workforce agencies need. For this fiscal year, as of June 12, 2014, the survey has received 24,186 total responses with 681 of those responses indicating that the applicant performed cyber work.

Question. Where are IT and personnel investments going? How well are you tracking how IT investments are aligned to the strategic plans of agencies?

Answer. Cyber skills are particularly sensitive to the changing external forces of technology and the national security and economic prosperity. Additionally, it is important that whenever an employee is brought into the Federal Government and performs well that the Federal Government do everything possible to retain that individual. Part of this responsibility lies in making sure that person feels fulfilled by the training opportunities that are available to him or her.

OPM's Employee Viewpoint Surveys reflect that overall, the current Federal workforce is very interested in receiving training that will foster their development. OPM also knows that having the agility and funding levels and staff capacity to provide the right developmental training at the right time is a key factor in employee retention.

OPM partnered recently with the Chief Information Officers Council's workforce survey that provided employees with a self-assessment tool of their cyber skills. Over 23,000 responses were received; the March 2013 reported results give Federal agencies insight about the skills their employees have and those that are needed. Through the Closing Skill Gaps Initiative, OPM encourages the cyber and human resources communities to use these results to design development opportunities to refresh and update talent.

OPM is also reaching out, as part of the President's Second Term Management Agenda and the Closing Skill Gaps Initiative, to partner with the National Initiative for Cybersecurity Education-Department of Homeland Security (NICE-DHS) clearinghouse resource effort on the National Institute of Standards and Technology (NIST) Web portal so that training and development activities can become a part of a Governmentwide university environment for Federal employees and agencies.

EFFICIENCIES IN HIRING QUALIFIED TALENT

Question. One common complaint amount Federal agencies is the time consuming and burdensome nature of the hiring process. One flexibility that agencies do not currently have is the ability to share lists of best qualified candidates for similar jobs. For example, it my understanding that if one agency conducts a search that results in a limited number of candidates with the specific skill set, and the agency is only able to hire one, another agency looking to fill the same position is not allowed to access the names of the other candidates. Instead, each agency is required to conduct its own lengthy search, delaying hiring and slowing down the ability of agencies to make progress on important projects.

Do you believe modifying the underlying statute to allow agencies to share their list of best qualified candidates would help agencies hire quicker and more effectively?

Answer. As you may know, in 2010, OPM submitted to the House of Representatives and the Senate draft legislation that would permit agencies to share resumes and select from among top candidates who have competed for similar positions at another agency, were assessed, and were determined by the other agency to be among the best qualified candidates for the job. Should Congress develop similar such legislation, OPM would be happy to examine it.

PATHWAYS PROGRAM FOR CYBER TALENT

Question. Director Archuleta, in your testimony you discuss OPM's work to enhance the recruitment and retention of cyber security and IT professionals, particularly students. One tool you did not mention was the Pathways internship programs, which allow agencies to non-competitively convert students and recent graduates. Many agencies have reported difficulties in utilizing the program due to the large number of applications they receive resulting from public notice, inadequate ways to assess candidates without experience and inability to target specific talent sources.

What is OPM doing to make sure that the Pathways programs are an effective pipeline for bringing mission-critical entry level IT talent into Federal agencies?

What is OPM doing to educate agencies on the use of this recruitment tool? Finally, what can Congress do to help increase the use and effectiveness of the program?

Answer. Pathways is designed to be an inclusive program, that permits agencies to recruit from all segments of the population. One of its goals is to expose recent graduates and students to Government service, in order to encourage them to consider becoming further involved in Government service as an immediate or long-term career goal. By definition, therefore, a strong response from applicants is a good thing, not a problem. Nevertheless, as with any recruitment process, it is important for agencies to develop valid approaches to assessment that permit them to identify the best candidates efficiently and effectively.

OPM is working through the STEM community and with technology departments at colleges and universities and examining hiring flexibilities to recruit and onboard STEM graduates. The Presidential Management Fellowship (PMF) program and the pilot STEM track helped to attract applicants with cyber skills in disciplines such as cybersecurity and information security.

OPM has held a number of Webinars, briefings, and training and specific agency sessions to educate human resources professionals and hiring managers on how to use the program. OPM has implemented monthly meetings with agency Pathways Program Officers to address global and specific issues related to the program. In addition, OPM is also finalizing additional guidance and frequently asked questions that will aid in making sure that agencies have information that they can use for the effective implementation of this program.

QUESTIONS SUBMITTED TO HON. DAVID POWNER

QUESTIONS SUBMITTED BY SENATOR TOM UDALL

GENERAL INFORMATION TECHNOLOGY REFORM

Question. What are the top five reforms needed to improve Federal information technology (IT) spending so that it is more efficient and effective?

Answer. Given the magnitude of the Federal Government's annual IT budget, which is expected to be more than \$82 billion in fiscal year 2014, it is important that agencies leverage all available opportunities to ensure that their IT investments are acquired in the most effective manner possible. To do so, agencies can rely on the Office of Management and Budget's (OMB's) initiatives such as:

- the IT Dashboard, a public Web site that provides information on 760 major investments at 27 Federal agencies, totaling almost \$41 billion;
- the mandated use of incremental IT development, the deployment of IT capabilities or functionality in release cycles no longer than 6 months;
- TechStat sessions, which are face-to-face meetings to terminate or turn around IT investments that are failing or are not producing results;
- the Federal Data Center Consolidation Initiative, which seeks to save \$3 billion by fiscal year 2015 by reducing the cost of data center hardware, software, and operations; and

—PortfolioStat sessions, which we estimate could save more than \$5.8 billion, are annual reviews of agencies' IT investments to eliminate duplication, move to shared services, and improve portfolio management processes.

We have examined each of these initiatives and made numerous recommendations to further increase their efficiency and effectiveness.¹ For example, we recommended that OMB make Dashboard information available independent of the budget process, and that selected agencies appropriately categorize IT investments and address identified weaknesses.² In addition, we recommended that OMB develop and issue realistic and clear guidance on incremental development and that selected agencies update and implement their incremental development policies to reflect OMB's guidance. We have also made recommendations to individual agencies participating in PortfolioStat to improve their implementation of PortfolioStat requirements. We have ongoing work reviewing the status of the implementation of these recommendations.

IDENTIFYING FAILING IT INVESTMENTS

Question. How well do the PortfolioStat and TechStat processes identify high risk or failing IT investments that may need to be canceled? How many such investments were canceled or put back on track through such processes? Should such tools be used more widely by Federal agencies?

Answer. While PortfolioStat was initially intended to focus on commodity IT,³ OMB only recently updated its PortfolioStat guidance in May 2014 to also ensure that critical IT investments deliver intended impacts and meet customer needs. However, OMB's TechStat sessions—face-to-face meetings to terminate or turn around IT investments that are failing or are not producing results—are more suited to identify high risk or failing IT investments that may need to be canceled.

In June 2013, we reported that OMB and selected agencies had held multiple TechStats and determined that, as of April 2013, OMB reported conducting 79 TechStats, which focused on 55 investments at 23 Federal agencies.⁴ Further, four selected agencies—the Departments of Agriculture, Commerce, Health and Human Services (HHS), and Homeland Security (DHS)—conducted 37 TechStats covering 28 investments. About 70 percent of the OMB-led and 76 percent of agency-led TechStats on major investments were considered medium to high risk at the time of the TechStat. We further reported that OMB and selected agencies tracked and reported positive results from TechStats, with most resulting in improved governance. We also found that OMB reported in 2011 that Federal agencies achieved almost \$4 billion in lifecycle cost savings as a result of TechStat sessions. However, we were unable to validate the reported outcomes and associated savings because OMB did not provide supporting artifacts or demonstrate the steps that OMB analysts took to verify the agencies' data. We subsequently recommended that OMB require agencies to report on how they validated the outcomes. OMB generally agreed with this recommendation.

Agencies could use TechStats more frequently. In our 2013 report, we found that the number of at-risk TechStats held was relatively small compared to the current number of medium- and high-risk major IT investments. Specifically, the OMB-led TechStats represented roughly 18.5 percent of the investments across the Government that had a medium- or high-risk chief information officer (CIO) rating. For the four selected agencies, the number of TechStats represented about 33 percent of the investments that had a medium- or high-risk CIO rating. We concluded that, until OMB and agencies develop plans to address these weaknesses, the investments

¹GAO, Data Center Consolidation: Strengthened Oversight Needed To Achieve Cost Savings Goal, GAO-13-378 (Washington, DC: Apr. 23, 2013); Information Technology: Additional Executive Review Sessions Needed To Address Troubled Projects, GAO-13-524 (Washington, DC: June 13, 2013); Information Technology: Additional OMB and Agency Actions Are Needed To Achieve Portfolio Savings, GAO-14-65 (Washington, DC: Nov. 6, 2013); IT Dashboard: Agencies Are Managing Investment Risk, but Related Ratings Need To Be More Accurate and Available, GAO-14-64 (Washington, DC: Dec. 12, 2013); and Information Technology: Agencies Need To Establish and Implement Incremental Development Policies, GAO-14-361 (Washington, DC: May 1, 2014).

²GAO-14-64.

³According to OMB, commodity IT includes services, such as enterprise IT systems (e-mail; identity and access management; IT security; Web hosting, infrastructure, and content; and collaboration tools); IT infrastructure (desktop systems, mainframes and servers, mobile devices, and telecommunications); and business systems (financial management, grants-related Federal financial assistance, grants-related transfer to State and local governments, and human resources management systems).

⁴GAO, Information Technology: Additional Executive Review Sessions Needed To Address Troubled Projects, GAO-13-524 (Washington, DC: June 13, 2013).

would likely remain at risk. We further recommended that OMB require agencies to conduct TechStats for each IT investment rated with a moderately high- or high-risk CIO rating on the IT Dashboard. OMB generally agreed with this recommendation.

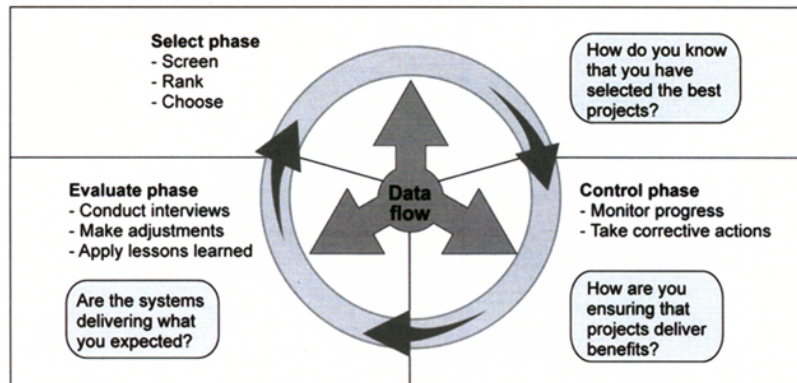
CANCELING FAILING IT PROJECTS

Question. What tools do agencies have to terminate IT investments that are critically over budget, over schedule, or failing to meet performance goals? Similarly, what tools do agencies have to replace these terminated investments with new commercial IT solutions?

Answer. As previously mentioned, agencies can utilize TechStat sessions to terminate or turn around IT investments that are failing or are not producing results. These meetings involve OMB and agency leadership and are intended to increase accountability and transparency and improve performance. OMB has told us that these sessions have resulted in investments that were either terminated or reduced in scope. Further, according to the former Federal chief information officer, the efforts of OMB and Federal agencies to improve management and oversight of IT investments have resulted in almost \$4 billion in savings.

In addition to TechStat sessions, our Information Technology Investment Management (ITIM) framework can be used by agencies to improve their organizational processes and measure progress in attaining them, including ensuring that investments are delivering expected benefits.⁵ As depicted in the following figure, the organization ensures that mission needs are met during the control phase. If the project is not meeting expectations or if problems have arisen, steps are quickly taken to address the deficiencies. If mission needs have changed, the organization is able to adjust its objectives for the project and appropriately modify expected project outcomes. The following figure illustrates the central components of the IT investment approach.

Figure: Fundamental Phases of the IT Investment Approach



Source: GAO.

If an agency elects to terminate an IT investment, OMB guidance on the acquisition of IT requires that agencies maximize the use of commercial services and off-the-shelf technology.⁶

TRANSITION TO CLOUD COMPUTING

Question. How well are Federal agencies implementing “cloud first” policies to drive efficiencies and savings through greater use of cloud computing services?

⁵ GAO, Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity (Supersedes AIMD-10.1.23), GAO-04-394G (Washington, DC: Mar. 1, 2004).

⁶ OMB, Guidance On Exhibits 53 And 300—Information Technology and E-Government (2012).

Answer. In July 2012, we found that each of the seven selected agencies⁷ that we reviewed incorporated cloud computing requirements into their policies and processes, and implemented at least one service by December 2011.⁸ However, two agencies did not plan to meet OMB's deadline to implement two additional services by June 2012, but did plan to do so by the end of the year. As a result, we recommended that the seven agencies develop key planning information, such as estimated costs and legacy IT systems' retirement plans, for existing and planned services. The agencies generally agreed with these recommendations.

We have ongoing work looking at OMB's Cloud First initiative, where we are assessing agency progress in utilizing cloud-based solutions, determining the extent to which agencies experienced cost savings when such solutions have been deployed, and identifying any challenges agencies are facing as they use cloud computing.

FEDERAL DATA CENTER CONSOLIDATION

Question. I would like to ask about discrepancies between Federal departments and agencies when it comes to data center consolidation and optimization. Which agencies or departments seem to be taking the most advantage of such opportunities to create savings and efficiencies? Which agencies or departments seem to lag behind?

Answer. Of the 24 agencies participating in OMB's data center consolidation initiative, we believe the Departments of Defense (Defense) and Homeland Security (DHS) are two of the agencies that show the most potential for achieving planned savings and efficiencies. Specifically, as we testified in February 2014,⁹ Defense reported 1,922 facilities although its original goal was to consolidate from 936 data centers to 392 and save an estimated \$2.2 billion. This increase in inventory opens the possibility of consolidating even more centers and realizing billions in cost savings. Further, DHS plans to reduce the number of its large data centers from 40 to 3 and recently reported consolidation savings of \$108 million through fiscal year 2013.

Regarding agencies that have been challenged to achieve their consolidation goals, we have ongoing work looking at OMB's data center consolidation initiative, including evaluating the extent to which agencies have achieved planned cost savings through their consolidation efforts and identifying agencies' notable consolidation successes and challenges in achieving cost savings. We plan to report later this year on each of the agencies' savings to date and where there is opportunity for greater savings.

TOP PRIORITY IT INVESTMENTS

Question. How can OMB help ensure the success of the administration's top priority IT investments?

Answer. While OMB's and agencies' recent efforts have resulted in greater transparency and oversight of Federal spending, continued leadership and attention are necessary to build on the progress that has been made. OMB is periodically reviewing the status of investments through its oversight of the IT Dashboard and its TechStat process. However, as we recommended in 2013, OMB needs to continue to hold TechStat sessions for major investments, hold agencies accountable for the performance of their investments, and make Dashboard information available independent of the budget process. Without this continued oversight, top priority investments may remain at risk. Additionally, with the possibility of over \$5.8 billion in savings from the data center consolidation and PortfolioStat initiatives, OMB and agencies should continue to identify and pursue consolidation opportunities, by implementing a range of our recommendations intended to increase to efficiency and effectiveness of Federal IT.

⁷The selected agencies were the Departments of Agriculture, Health and Human Services, Homeland Security, State, and Treasury; the General Services Administration and the Small Business Administration.

⁸GAO, Information Technology Reform: Progress Made but Future Cloud Computing Efforts Should Be Better Planned, GAO-12-756 (Washington, DC: July 11, 2012).

⁹GAO, Information Technology: Leveraging Best Practices and Reform Initiatives Can Help Defense Manage Major Investments, GAO-14-400T (Washington, DC: Feb. 26, 2014).

CONCLUSION OF HEARING

Senator UDALL. The subcommittee is hereby adjourned. Thank you.

[Whereupon, at 3:40 p.m., Wednesday, May 7, the subcommittee was recessed, to reconvene subject to the call of the Chair.]