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THE FEDERAL INFORMATION TECHNOLOGY ACQUISITION REFORM ACT (FITARA) SCORECARD 5.0

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON
INFORMATION TECHNOLOGY

AND THE

SUBCOMMITTEE ON
GOVERNMENT OPERATIONS

OF THE

COMMITTEE ON OVERSIGHT
AND GOVERNMENT REFORM
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIFTEENTH CONGRESS

FIRST SESSION

NOVEMBER 15, 2017

Serial No. 115–55

Printed for the use of the Committee on Oversight and Government Reform



Available via the World Wide Web: http://www.fdsys.gov
http://oversight.house.gov

U.S. GOVERNMENT PUBLISHING OFFICE

29–502 PDF WASHINGTON : 2018

For sale by the Superintendent of Documents, U.S. Government Publishing Office
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THE FEDERAL INFORMATION TECHNOLOGY ACQUISITION REFORM ACT (FITARA) SCORECARD 5.0

Wednesday, November 15, 2017

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON INFORMATION TECHNOLOGY JOINT
WITH SUBCOMMITTEE ON GOVERNMENT OPERATIONS,
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM,
Washington, D.C.

The subcommittees met, pursuant to call, at 2:45 p.m., in Room 2154, Rayburn House Office Building, Hon. Will Hurd [chairman of the Subcommittee on Information Technology] presiding.

Present: Representatives Hurd, Amash, Massie, Gianforte, Blum, Kelly, Connolly, Norton, and Krishnamoorthi.

Mr. HURD. The Subcommittee on Information Technology and the Subcommittee on Government Operations will come to order.

Without objection, the chair is authorized to declare a recess at any time.

And I now recognize myself for 5 minutes for my opening remarks.

Good afternoon. I appreciate you all being here today. Today's hearing is part of this committee's continuing oversight of Federal IT. This began with GAO's high-risk report and the designation of IT acquisition on that report back in February of 2015, and it's been a priority of ours ever since.

And due to the importance we place on this issue, our committee staffs worked with GAO to develop a scorecard to assess agencies' FITARA implementation efforts. This bipartisan scorecard has been issued every 6 months, beginning 2 years ago on November 4, 2015.

The scorecard has evolved each iteration in response to GAO recommendations and stakeholder feedback. Scorecard 5.0 adds a fifth graded category to assess agencies' management of software licenses. We previewed this category as part of scorecard 4.0. For scorecard 6.0, a measure of whether agencies have established working capital funds as authorized by the MGT Act, which I was pleased to see included in the final NDAA, will be made a part of the scorecard.

Ultimately, I'd like to see the scorecard evolve beyond FITARA implementation to more of a digital hygiene score for agencies. Adding megabyte implementation to this scorecard is a step in that direction.

The inclusion of software licensing had a negative overall impact on the grades. Since the last scorecard, 3 agencies' grades increased, 15 agency grades stayed the same, and 6 decreased. If software licensing were not included, 8 agencies' grades would have increased, 14 would have stayed the same, and 2 would have decreased. So progress is being made, just not as quick as it should be and needs to be.

Legacy IT is a continuing fiscal and cybersecurity risk to our Nation. Those 17 agencies received an F on this new metric for the FITARA scorecard 5.0. It is worth noting that each of these agencies has efforts underway to create and use an inventory of software licenses.

I hope to hear from each agency today how they plan to improve their score in this area. I also hope to hear from Mr. Powner, his thoughts on where we will be governmentwide on this metric in 6 months for scorecard 6.0.

Today's hearing features three panels, with officials from the Department of Energy, the United States Agency for International Development, and the Small Business Administration. Their grades are a D-plus, A-minus, and C-minus.

As always, I'm honored to be exploring these issues in a bipartisan fashion with my friend and ranking member, the Honorable Robin Kelly, from Illinois. I'm also pleased to be joined by Chairman Meadows and Ranking Member Connolly from the Government Operations Subcommittee. I could not have asked for better partners in the effort to modernize technology in the Federal Government. And I thank my colleagues and the witnesses and all who have joined us in person, and for those folks who are watching online, for participating today.

I now recognize my friend, the ranking member of the Information Technology Subcommittee, Ms. Kelly, for 5 minutes and her opening statement.

Ms. KELLY. Before we begin today's hearing, I also want to thank you, Chairman Hurd, Chairman Meadows, and Ranking Member Connolly, for your steadfast leadership as our subcommittees continue working together to oversee the improvement of Federal IT systems. I'm glad to have such great partners in this endeavor.

Improving the efficiency and security of the Federal Government's IT systems is essential to our Nation's security. Crucial to that effort is the ongoing oversight conducted by our subcommittees to hold agencies accountable for implementing key aspects of the Federal Information Technology Acquisition Reform Act. An important part of that oversight has been the scorecard our subcommittees developed for grading agency progress and meeting the FITARA requirements.

Today, our subcommittee released the fifth version of the scorecard. It's been 2 years since we released the first one and held our first hearing on this issue. Since that time, we've strengthened the role of the CIO at many agencies, increased transparency in project management, and we've saved billions of taxpayer dollars. I'm proud of the work we've accomplished together so far.

The new scorecard, however, shows that progress is difficult and that we still have a long way to go. For example, as the chairman talked about, while some agencies like the U.S. Agency for Inter-

national Development has done well, going from a D in 2015 to an A-minus today, others like the SBA has fallen behind and gone from D in 2015 to a C-minus today.

Overall, the grades for only three agencies went up on the scorecard, 15 stayed the same, and 6 actually went down. The scorecard makes clear that agencies still have a long way to go to address the challenge of reducing the growing number of Federal data centers.

The FITARA Enhancement Act that was introduced by Ranking Member Connolly earlier this year would extend the timeline for agencies to close any unneeded data centers. The bill will also provide greater support to agency CIOs in their effort to eliminate and consolidate large numbers of data centers.

Since the release of the last scorecard, the subcommittees have added software licensing as a metric of performance to this one. The overall grades in this category indicate that agencies are struggling when it comes to the management of their software licenses.

I am concerned about this most recent scorecard performance, and look forward to hearing from today's agencies on the struggles and challenges they are facing in FITARA implementation and how Congress can be more helpful.

There is simply too much at stake when it comes to FITARA. This isn't just about saving taxpayer money; it's about improving the overall general hygiene of the Federal Government, and the scored metrics here are the basics of running any shop.

I want to thank the witnesses for testifying today.

Mr. Powner, you might just be the most popular witness on the Hill. This is your fifth hearing with us on FITARA. I'm also looking forward to hearing from all the agencies here today. Thank you so much.

Thank you, Mr. Chair.

Mr. HURD. Thank you, Ranking Member.

And when the other members get here and want to do opening remarks, we can do that at the next panel. But let's go ahead and get into our first panel.

I'd like to introduce the witnesses. As the gentlewoman from Illinois recognized, Mr. Dave Powner, one of probably—holds the record of number of times coming before this committee, the director of IT management issues at the Government Accountability Office.

Max Everett, chief information officer at the Department of Energy; Ms. Alison Doone, acting chief financial officer at the Department of Energy; and Mr. John Bashista, director of acquisition management, also at DOE; and Ms. Barbara Helland, associate director of advanced scientific computing research at the Department of Energy. Appreciate you all being here.

And pursuant to committee rules, all witnesses will be sworn before you testify, so please rise and raise your right hand.

Do you solemnly swear or affirm that the testimony you're about to give is the truth, the whole truth, and nothing but the truth, so help you God?

Thank you.

Let the record reflect all witnesses answered in the affirmative.

In order to allow time for discussion, please limit your testimony to 5 minutes, and your entire written statement will be made part of the record. As a reminder, the clock in front of you shows your remaining time. The light will turn yellow when you have 30 seconds left, and the red is when your time is up. Please also remember to push the button to turn on your microphone before speaking.

And now I'd like to recognize Mr. Dave Powner for his opening remarks.

WITNESS STATEMENTS

STATEMENT OF DAVE POWNER

Mr. POWNER. Chairman Hurd, Ranking Member Kelly, and members of the subcommittees, I would like to thank you and your staff for your continued oversight on the implementation of FITARA with this fifth set of grades.

We've added a fifth category to grades, software licensing, at your request, so now the FITARA scorecard covers five of the seven major areas of this law. Overall, three agencies' grades went up: Education, OPM, and SBA; 6 went down; and 15 remained the same. Of the six that went down—Energy, DHS, HUD, Transportation, EPA, and Justice—none had a software license inventory, and received Fs in this subcategory.

Regarding the software license area, 6 months ago when you previewed this area with scorecard 4.0, only three agencies had complete inventories. Now, seven do. And six of these seven report savings in this area: Ag, Education, GSA, NASA, VA, and USAID. Those six received As for this. Labor gets a C, and 17 agencies without inventories receive Fs. Progress, but clearly not enough, given that this was a major section of FITARA and was followed up with the MEGABYTE Act.

Another area where significant progress needs to be made is optimizing data centers. SSA, EPA, and GSA report solid progress against the five optimization metrics. Education and HUD are out of the data center business, as they no longer have any agency-owned data centers. The other 19 agencies have a ways to go to optimize these centers.

The key point here is that additional and substantial savings can still be realized as we see better utilization of these facilities and equipment.

I'd like to conclude this overview by thanking this committee, Chairman Hurd and Meadows, and Ranking Members Kelly and Connolly, and your dedicated staff, not only for your consistent and thorough oversight of FITARA, but also for your followup with the FITARA extension and the MGT Act to give agencies more time to implement more completely and to provide additional avenues for reinvesting savings in modernization priorities.

Now turning to the Department of Energy. Energy plans to spend about $1.8 billion on IT this year. About half of this spending is for IT programs at the National Nuclear Security Administration. Energy's grades have fluctuated over the five scorecards between Fs and Cs, and their current grade is a D-plus.

The plus here is of major significance, and I would very much like to commend Max Everett and the Department's leadership as

Energy is the only agency that has elevated their CIO reporting since FITARA was enacted.

Another positive note is in the area of incremental development where they received an A. This is consistent with the report that we just issued on this topic where Energy was only one of four agencies that had incremental certification policy consistent with OMB guidance in FITARA.

Turning to areas where Energy needs to improve, let's start with CIO tenure. Since 2004, the average CIO tenure at Energy has only been 1.7 years. This is a major issue and reason why IT has not been effectively managed.

On data centers, Energy is reported saving $21 million between 2012 and 2017. However, they report not meeting any of the five metrics and have no additional planned savings. Their closures will fall short of OMB's goals for both small and large centers. The bottom line here is that if you're short on metrics, there is likely more closures and savings to be had.

Energy's software license inventory is not complete. It covers CIO-controlled licenses, and they're working on completing the inventory for the other components.

Finally, I'd like to note that our work for this committee on IT budgeting and CIO authorities shows that Energy's CIO has challenges in the area of IT budgeting and execution, meaning that there needs to be more visibility into the IT budget and better governance over their important system acquisitions.

Mr. Chairman, this concludes my comments on the Department of Energy.

[Prepared statement of Mr. Powner follows:]

United States Government Accountability Office

GAO

Testimony before the Subcommittees on Government Operations and Information Technology, Committee on Oversight and Government Reform, House of Representatives

For Release on Delivery
Expected at 2:00 p.m. ET
Wednesday, November 15, 2017

INFORMATION TECHNOLOGY

Further Implementation of FITARA Related Recommendations Is Needed to Better Manage Acquisitions and Operations

Statement of David A. Powner, Director
Information Technology Management Issues

GAO Highlights

Highlights of GAO-18-234T, a testimony before the Subcommittees on Government Operations and Information Technology, Committee on Oversight and Government Reform, House of Representatives

Why GAO Did This Study

The federal government plans to invest almost $96 billion on IT in fiscal year 2018. Historically, these investments have too often failed, incurred cost overruns and schedule slippages, or contributed little to mission-related outcomes. Accordingly, in December 2014, Congress enacted FITARA, aimed at improving agencies' acquisitions of IT. Further, in February 2015, GAO added improving the management of IT acquisitions and operations to its high-risk list.

This statement summarizes agencies' progress in improving the management of IT acquisitions and operations. This statement is based on GAO's prior and recently published reports on (1) data center consolidation, (2) risk levels of major investments as reported on OMB's IT Dashboard, (3) implementation of incremental development practices, and (4) management of software licenses.

What GAO Recommends

From fiscal years 2010 through 2015, GAO made about 800 recommendations to OMB and federal agencies to address shortcomings in IT acquisitions and operations, and included recommendations to improve the oversight and execution of the data center consolidation initiative, the accuracy and reliability of the Dashboard, incremental development policies, and software license management. Most agencies agreed with GAO's recommendations or had no comments. In addition, since fiscal year 2016, GAO has made more than 200 new recommendations in this area. GAO will continue to monitor agencies' implementation of these recommendations.

View GAO-18-234T. For more information, contact David A. Powner at (202) 512-9286 or pownerd@gao.gov.

November 15, 2017

INFORMATION TECHNOLOGY

Further Implementation of FITARA Related Recommendations Is Needed to Better Manage Acquisitions and Operations

What GAO Found

The Office of Management and Budget (OMB) and federal agencies have taken steps to improve information technology (IT) through a series of initiatives, and as of November 2017, had fully implemented about 56 percent of the approximately 800 related GAO recommendations. However, additional actions are needed.

- **Consolidating data centers**. OMB launched an initiative in 2010 to reduce data centers, which was reinforced by the Federal Information Technology Acquisition Reform Act (FITARA) in 2014. However, in a series of reports that GAO issued over the past 6 years, the agency noted that, while data center consolidation could potentially save the federal government billions of dollars, weaknesses existed in several areas, including agencies' data center consolidation plans, data center optimization, and OMB's tracking and reporting on related cost savings. In these reports, GAO made a matter for Congressional consideration, and a total of 160 recommendations to OMB and 24 agencies, to improve the execution and oversight of the initiative. Most agencies and OMB agreed with the recommendations or had no comments. As of November 2017, 84 of the recommendations remained open.
- **Enhancing transparency**. OMB's IT Dashboard provides information on major investments at federal agencies, including ratings from Chief Information Officers that should reflect the level of risk facing an investment. Over the past 6 years, GAO has issued a series of reports about the Dashboard that noted both significant steps OMB has taken to enhance the oversight, transparency, and accountability of federal IT investments by creating its Dashboard, as well as concerns about the accuracy and reliability of the data. In total, GAO has made 47 recommendations to OMB and federal agencies to help improve the accuracy and reliability of the information on the Dashboard and to increase its availability. Most agencies agreed with the recommendations or had no comments. As of November 2017, 25 of these recommendations remained open.
- **Implementing incremental development**. OMB has emphasized the need for agencies to deliver investments in smaller parts, or increments, in order to reduce risk and deliver capabilities more quickly. Since 2012, OMB has required investments to deliver functionality every 6 months. Further, GAO has issued reports highlighting additional actions needed by OMB and agencies to improve their implementation of incremental development. In these reports, GAO made 42 recommendations. Most agencies agreed or did not comment on the recommendations. As of November 2017, 34 of the recommendations remained open.
- **Managing software licenses**. Effective management of software licenses can help avoid purchasing too many licenses that result in unused software. In May 2014, GAO reported that better management of licenses was needed to achieve savings, and made 136 recommendations to improve such management. Most agencies generally agreed with the recommendations or had no comments. As of November 2017, 112 of the recommendations remained open.

Chairmen Meadows and Hurd, Ranking Members Connolly and Kelly, and Members of the Subcommittees:

I am pleased to be here today to provide an update on federal agencies' efforts to improve the acquisition of information technology (IT). As I have previously testified, the effective and efficient acquisition of IT has been a long-standing challenge in the federal government.[1] In particular, the federal government has spent billions of dollars on failed and poorly performing IT investments, which often suffered from ineffective management. Recognizing the importance of government-wide acquisition of IT, in December 2014, Congress enacted federal IT acquisition reform legislation (commonly referred to as the Federal Information Technology Acquisition Reform Act, or FITARA).[2]

In addition, in February 2015, we added improving the management of IT acquisitions and operations to our list of high-risk areas for the federal government.[3] We recently issued an update to our high-risk report and noted that, while progress has been made in addressing the high-risk area of IT acquisitions and operations, significant work remains to be completed.[4]

My statement today provides an update on agencies' progress in improving the management of IT acquisitions and operations. The statement is based on our prior and recently published reports that discuss federal agencies' (1) data center consolidation efforts, (2) risk levels of major investments as reported on OMB's IT Dashboard, (3) implementation of incremental development practices, and (4) management of software licenses. A more detailed discussion of the

[1]GAO, *Information Technology: Sustained Management Attention to the Implementation of FITARA Is Needed to Better Manage Acquisitions and Operations*, GAO-17-686T (Washington, D.C.: June 13, 2017).

[2]Carl Levin and Howard P. 'Buck' McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No. 113-291, div. A, title VIII, subtitle D, 128 Stat. 3292, 3438-3450 (Dec. 19, 2014).

[3]GAO, *High-Risk Series: An Update*, GAO-15-290 (Washington, D.C.: Feb. 11, 2015). GAO maintains a high-risk program to focus attention on government operations that it identifies as high risk due to their greater vulnerabilities to fraud, waste, abuse, and mismanagement or the need for transformation to address economy, efficiency, or effectiveness challenges.

[4]GAO, *High-Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others*, GAO-17-317 (Washington, D.C.: Feb. 15, 2017).

objectives, scope, and methodology for this work is included in each of the reports that are cited throughout this statement.

We conducted the work upon which this statement is based in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

According to the President's budget, the federal government plans to invest more than $96 billion for IT in fiscal year 2018—the largest amount ever. However, as we have previously reported, investments in federal IT too often result in failed projects that incur cost overruns and schedule slippages, while contributing little to the desired mission-related outcomes. For example:

- The Department of Veterans Affairs' Scheduling Replacement Project was terminated in September 2009 after spending an estimated $127 million over 9 years.[5]
- The tri-agency[6] National Polar-orbiting Operational Environmental Satellite System was halted in February 2010 by the White House's Office of Science and Technology Policy after the program spent 16 years and almost $5 billion.[7]

[5]GAO, *Information Technology: Management Improvements Are Essential to VA's Second Effort to Replace Its Outpatient Scheduling System*, GAO-10-579 (Washington, D.C.: May 27, 2010).

[6]The weather satellite program was managed by the National Oceanic and Atmospheric Administration, the Department of Defense, and the National Aeronautics and Space Administration.

[7]See, for example, GAO, *Polar-Orbiting Environmental Satellites: With Costs Increasing and Data Continuity at Risk, Improvements Needed in Tri-agency Decision Making*, GAO-09-564 (Washington, D.C.: June 17, 2009) and *Environmental Satellites: Polar-Orbiting Satellite Acquisition Faces Delays; Decisions Needed on Whether and How to Ensure Climate Data Continuity*, GAO-08-518 (Washington, D.C.: May 16, 2008).

- The Department of Homeland Security's Secure Border Initiative Network program was ended in January 2011, after the department obligated more than $1 billion for the program.[8]
- The Office of Personnel Management's Retirement Systems Modernization program was canceled in February 2011, after the agency had spent approximately $231 million on its third attempt to automate the processing of federal employee retirement claims.[9]
- The Department of Veterans Affairs' Financial and Logistics Integrated Technology Enterprise program was intended to be delivered by 2014 at a total estimated cost of $609 million, but was terminated in October 2011.[10]
- The Department of Defense's Expeditionary Combat Support System was canceled in December 2012 after spending more than a billion dollars and failing to deploy within 5 years of initially obligating funds.[11]

Our past work found that these and other failed IT projects often suffered from a lack of disciplined and effective management, such as project planning, requirements definition, and program oversight and governance. In many instances, agencies had not consistently applied best practices that are critical to successfully acquiring IT.

[8]See, for example, GAO, *Secure Border Initiative: DHS Needs to Strengthen Management and Oversight of Its Prime Contractor*, GAO-11-6 (Washington, D.C.: Oct. 18, 2010); *Secure Border Initiative: DHS Needs to Reconsider Its Proposed Investment in Key Technology Program*, GAO-10-340 (Washington, D.C.: May 5, 2010); and *Secure Border Initiative: DHS Needs to Address Testing and Performance Limitations That Place Key Technology Program at Risk*, GAO-10-158 (Washington, D.C.: Jan. 29, 2010).

[9]See, for example, GAO, *Office of Personnel Management: Retirement Modernization Planning and Management Shortcomings Need to Be Addressed*, GAO-09-529 (Washington, D.C.: Apr. 21, 2009) and *Office of Personnel Management: Improvements Needed to Ensure Successful Retirement Systems Modernization*, GAO-08-345 (Washington, D.C.: Jan. 31, 2008).

[10]GAO, *Information Technology: Actions Needed to Fully Establish Program Management Capability for VA's Financial and Logistics Initiative*, GAO-10-40 (Washington, D.C.: Oct. 26, 2009).

[11]GAO, *DOD Financial Management: Implementation Weaknesses in Army and Air Force Business Systems Could Jeopardize DOD's Auditability Goals*, GAO-12-134 (Washington, D.C.: Feb. 28, 2012) and *DOD Business Transformation: Improved Management Oversight of Business System Modernization Efforts Needed*, GAO-11-53 (Washington, D.C.: Oct. 7, 2010).

Such projects have also failed due to a lack of oversight and governance. Executive-level governance and oversight across the government has often been ineffective, specifically from chief information officers (CIO). For example, we have reported that some CIOs' roles were limited because they did not have the authority to review and approve the entire agency IT portfolio.[12]

FITARA Can Improve Agencies' Management of IT

FITARA was intended to improve agencies' acquisitions of IT and enable Congress to monitor agencies' progress and hold them accountable for reducing duplication and achieving cost savings. The law includes specific requirements related to seven areas.[13]

- **Federal data center consolidation initiative (FDCCI).** Agencies are required to provide OMB with a data center inventory, a strategy for consolidating and optimizing their data centers (to include planned cost savings), and quarterly updates on progress made. The law also requires OMB to develop a goal for how much is to be saved through this initiative, and provide annual reports on cost savings achieved.
- **Enhanced transparency and improved risk management.** OMB and covered agencies are to make detailed information on federal IT investments publicly available, and agency CIOs are to categorize their investments by level of risk. Additionally, in the case of major IT investments[14] rated as high risk for 4 consecutive quarters, the law requires that the agency CIO and the investment's program manager

[12]GAO, *Federal Chief Information Officers: Opportunities Exist to Improve Role in Information Technology Management*, GAO-11-634 (Washington, D.C.: Sept. 15, 2011).

[13]The provisions apply to the agencies covered by the Chief Financial Officers Act of 1990, 31 U.S.C. § 901(b). These agencies are the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, Justice, Labor, State, the Interior, the Treasury, Transportation, and Veterans Affairs; the Environmental Protection Agency, General Services Administration, National Aeronautics and Space Administration, National Science Foundation, Nuclear Regulatory Commission, Office of Personnel Management, Small Business Administration, Social Security Administration, and U.S. Agency for International Development. However, FITARA has generally limited application to the Department of Defense.

[14]Major IT investment means a system or an acquisition requiring special management attention because it has significant program or policy implications; high executive visibility; high development, operating, or maintenance costs; an unusual funding mechanism; or is defined as major by the agency's capital planning and investment control process.

conduct a review aimed at identifying and addressing the causes of the risk.

- **Agency CIO authority enhancements.** CIOs at covered agencies are required to (1) approve the IT budget requests of their respective agencies, (2) certify that OMB's incremental development guidance is being adequately implemented for IT investments, (3) review and approve contracts for IT, and (4) approve the appointment of other agency employees with the title of CIO.
- **Portfolio review.** Agencies are to annually review IT investment portfolios in order to, among other things, increase efficiency and effectiveness and identify potential waste and duplication. In establishing the process associated with such portfolio reviews, the law requires OMB to develop standardized performance metrics, to include cost savings, and to submit quarterly reports to Congress on cost savings.
- **Expansion of training and use of IT acquisition cadres.** Agencies are to update their acquisition human capital plans to address supporting the timely and effective acquisition of IT. In doing so, the law calls for agencies to consider, among other things, establishing IT acquisition cadres or developing agreements with other agencies that have such cadres.
- **Government-wide software purchasing program.** The General Services Administration is to develop a strategic sourcing initiative to enhance government-wide acquisition and management of software. In doing so, the law requires that, to the maximum extent practicable, the General Services Administration should allow for the purchase of a software license agreement that is available for use by all executive branch agencies as a single user.[15]
- **Maximizing the benefit of the Federal Strategic Sourcing Initiative.**[16] Federal agencies are required to compare their purchases of services and supplies to what is offered under the Federal Strategic

[15]The Making Electronic Government Accountable by Yielding Tangible Efficiencies Act of 2016, or the "MEGABYTE Act" further enhances CIOs' management of software licenses by requiring agency CIOs to establish an agency software licensing policy and a comprehensive software license inventory to track and maintain licenses, among other requirements. Pub. L. No. 114-210 (July 29, 2016); 130 Stat. 824.

[16]The Federal Strategic Sourcing Initiative is a program established by the General Services Administration and the Department of the Treasury to address government-wide opportunities to strategically source commonly purchased goods and services and eliminate duplication of efforts across agencies.

Sourcing Initiative. OMB is also required to issue regulations related to the initiative.

In June 2015, OMB released guidance describing how agencies are to implement FITARA.[17] This guidance is intended to, among other things:

- assist agencies in aligning their IT resources with statutory requirements;
- establish government-wide IT management controls that will meet the law's requirements, while providing agencies with flexibility to adapt to unique agency processes and requirements;
- clarify the CIO's role and strengthen the relationship between agency CIOs and bureau CIOs; and
- strengthen CIO accountability for IT costs, schedules, performance, and security.

The guidance identified several actions that agencies were to take to establish a basic set of roles and responsibilities (referred to as the common baseline) for CIOs and other senior agency officials, which were needed to implement the authorities described in the law. For example, agencies were required to conduct a self-assessment and submit a plan describing the changes they intended to make to ensure that common baseline responsibilities were implemented. Agencies were to submit their plans to OMB's Office of E-Government and Information Technology by August 15, 2015, and make portions of the plans publicly available on agency websites no later than 30 days after OMB approval. As of November 2016, all agencies had made their plans publicly available.

In addition, in August 2016, OMB released guidance intended to, among other things, define a framework for achieving the data center consolidation and optimization requirements of FITARA.[18] The guidance includes requirements for agencies to:

- maintain complete inventories of all data center facilities owned, operated, or maintained by or on behalf of the agency;

[17]OMB, *Management and Oversight of Federal Information Technology*, Memorandum M-15-14 (Washington, D.C.: June 10, 2015).

[18]OMB, *Data Center Optimization Initiative (DCOI)*, Memorandum M-16-19 (Washington D.C.: Aug. 1, 2016).

- develop cost savings targets for fiscal years 2016 through 2018 and report any actual realized cost savings; and
- measure progress toward meeting optimization metrics on a quarterly basis.

The guidance also directs agencies to develop a data center consolidation and optimization strategic plan that defines the agency's data center strategy for fiscal years 2016, 2017, and 2018. This strategy is to include, among other things, a statement from the agency CIO indicating whether the agency has complied with all data center reporting requirements in FITARA. Further, the guidance indicates that OMB is to maintain a public dashboard that will display consolidation-related costs savings and optimization performance information for the agencies.

IT Acquisitions and Operations Identified by GAO as a High-Risk Area

In February 2015, we introduced a new government-wide high-risk area, *Improving the Management of IT Acquisitions and Operations*.[19] This area highlighted several critical IT initiatives in need of additional congressional oversight, including (1) reviews of troubled projects; (2) efforts to increase the use of incremental development; (3) efforts to provide transparency relative to the cost, schedule, and risk levels for major IT investments; (4) reviews of agencies' operational investments; (5) data center consolidation; and (6) efforts to streamline agencies' portfolios of IT investments. We noted that implementation of these initiatives was inconsistent and more work remained to demonstrate progress in achieving IT acquisition and operation outcomes.

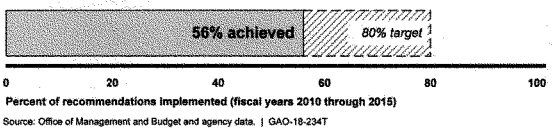
Further, our February 2015 high-risk report stated that, beyond implementing FITARA, OMB and agencies needed to continue to implement our prior recommendations in order to improve their ability to effectively and efficiently invest in IT. Specifically, from fiscal years 2010 through 2015, we made 803 recommendations to OMB and federal agencies to address shortcomings in IT acquisitions and operations. These recommendations included many to improve the implementation of the aforementioned six critical IT initiatives and other government-wide, cross-cutting efforts. We stressed that OMB and agencies should demonstrate government-wide progress in the management of IT investments by, among other things, implementing at least 80 percent of

[19]GAO-15-290.

our recommendations related to managing IT acquisitions and operations within 4 years.

In February 2017, we issued an update to our high-risk series and reported that, while progress had been made in improving the management of IT acquisitions and operations, significant work still remained to be completed.[20] For example, as of November 2017, OMB and agencies had fully implemented 452 (or about 56 percent) of the 803 recommendations. This was an increase of about 284 recommendations compared to the number of recommendations we reported as being fully implemented in 2015. Figure 1 summarizes the progress that OMB and agencies have made in addressing our recommendations as compared to the 80 percent target, as of November 2017.

Figure 1: Summary of the Office of Management and Budget's and Federal Agencies' Progress in Addressing GAO's Recommendations, as of November 2017



Source: Office of Management and Budget and agency data. | GAO-18-234T

In addition, in fiscal year 2016, we made 202 new recommendations, thus further reinforcing the need for OMB and agencies to address the shortcomings in IT acquisitions and operations. Also, beyond addressing our prior recommendations, our 2017 high-risk update noted the importance of OMB and federal agencies continuing to expeditiously implement the requirements of FITARA.

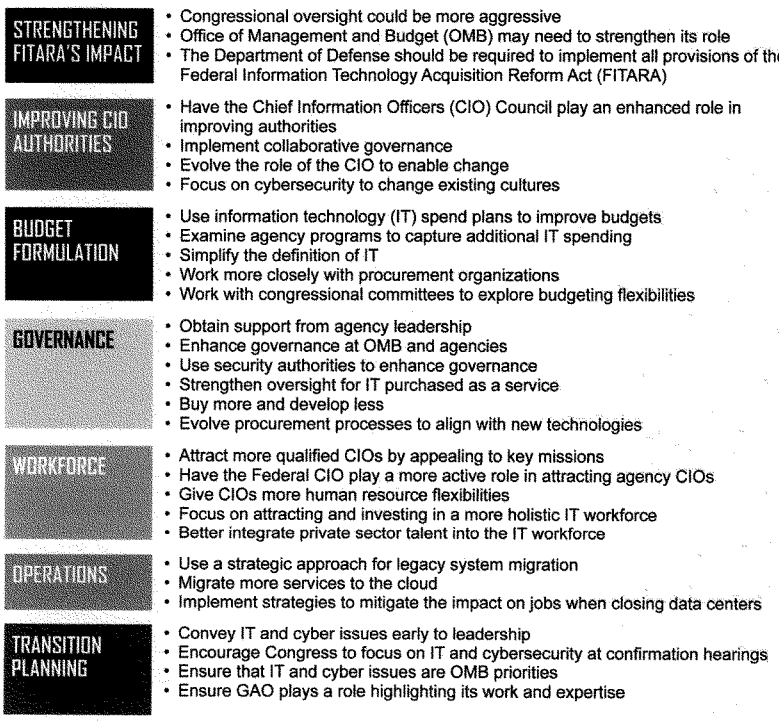
To further explore the challenges and opportunities to improve federal IT acquisitions and operations, we convened a forum on September 14, 2016, to explore challenges and opportunities for CIOs to improve federal IT acquisitions and operations—with the goal of better informing policymakers and government leadership.[21] Forum participants, which included 13 current and former federal agency CIOs, members of

[20]GAO-17-317.

[21]GAO, *Information Technology: Opportunities for Improving Acquisitions and Operations*, GAO-17-251SP (Washington, D.C.: Apr. 11, 2017).

Congress, and private sector IT executives, identified key actions related to seven topics: (1) strengthening FITARA, (2) improving CIO authorities, (3) budget formulation, (4) governance, (5) workforce, (6) operations, and (7) transition planning. A summary of the key actions, by topic area, identified during the forum is provided in figure 2.

Figure 2: Key Actions, by Topic Area, Identified by Forum Participants to Improve Information Technology Acquisitions and Operations



Source: GAO analysis. | GAO-18-234T

In addition, in January 2017, the Federal CIO Council concluded that differing levels of authority over IT-related investments and spending

have led to inconsistencies in how IT is executed from agency to agency. According to the Council, for those agencies where the CIO has broad authority to manage all IT investments, great progress has been made to streamline and modernize the federal agency's footprint. For the others, where agency CIOs are only able to control pieces of the total IT footprint, it has been harder to achieve improvements.[22]

Current Administration Has Undertaken Efforts to Improve Federal IT

The current administration has initiated additional efforts aimed at improving federal IT, including digital services. Specifically, in March 2017, the administration established the Office of American Innovation, which has a mission to, among other things, make recommendations to the President on policies and plans aimed at improving federal government operations and services and on modernizing federal IT. In doing so, the office is to consult with both OMB and the Office of Science and Technology Policy on policies and plans intended to improve government operations and services, improve the quality of life for Americans, and spur job creation.[23]

In May 2017, the administration also established the American Technology Council, which has a goal of helping to transform and modernize federal agency IT and how the federal government uses and delivers digital services. The President is the chairman of this council, and the Federal CIO and the United States Digital Service[24] administrator are members.

[22]CIO Council, *State of Federal Information Technology* (Washington, D.C.: January 2017).

[23]The White House Office of Science and Technology Policy provides the President and others within the Executive Office of the President with advice on the scientific, engineering, and technological aspects of the economy, national security, homeland security, health, foreign relations, the environment, and the technological recovery and use of resources, among other topics.

[24]The United States Digital Service is an office within OMB which aims to improve the most important public-facing federal digital services.

Congress Has Taken Action to Continue Selected FITARA Provisions and Modernize Federal IT

Congress has recognized the importance of agencies' continued implementation of FITARA provisions, and has taken legislative action to extend selected provisions beyond their original dates of expiration. For example, Congress has passed legislation to:[25]

- remove the expiration date for enhanced transparency and improved risk management provisions, which were set to expire in 2019;
- remove the expiration date for portfolio review, which was set to expire in 2019; and
- extend the expiration date for FDCCI from 2018 to 2020.

In addition, Congress is considering legislation to ensure the availability of funding to help further agencies' efforts to modernize IT.[26] Specifically, recently proposed legislation calls for agencies to establish working capital funds for use in transitioning from legacy systems, as well as for addressing evolving threats to information security. The legislation also proposes the creation of a technology modernization fund within the Department of the Treasury, from which agencies could borrow money to retire and replace legacy systems as well as acquire or develop systems.

Agencies Have Taken Steps to Implement FITARA, but Additional Actions are Needed to Address Related Recommendations

Agencies have taken steps to improve the management of IT acquisitions and operations by implementing key FITARA initiatives. However, agencies would be better positioned to fully implement the law and, thus, realize billions in cost savings and additional management improvements, if they addressed the numerous recommendations we have made aimed at improving data center consolidation, increasing transparency via OMB's IT Dashboard, implementing incremental development, and managing software licenses.

[25]FITARA Enhancement Act of 2017, H.R. 3243, 115th Cong. (2017).

[26]National Defense Authorization Act for Fiscal Year 2018, H.R. 2810, 115th Cong., div. A, Title X, Subtitle H (as passed by the Senate on Sept. 18, 2017). A conference agreement on this legislation is pending.

Agencies Have Made Progress in Consolidating Data Centers, but Need to Take Action to Achieve Planned Cost Savings

One of the key initiatives to implement FITARA is data center consolidation. OMB established FDCCI in February 2010 to improve the efficiency, performance, and environmental footprint of federal data center activities, and the enactment of FITARA reinforced the initiative. However, in a series of reports that we issued from July 2011 through August 2017, we noted that, while data center consolidation could potentially save the federal government billions of dollars, weaknesses existed in several areas, including agencies' data center consolidation plans, data center optimization, and OMB's tracking and reporting on related cost savings.[27] In these reports, we made a matter for Congressional consideration, and a total of 160 recommendations to OMB and 24 agencies to improve the execution and oversight of the initiative. Most agencies and OMB agreed with our recommendations or had no comments. As of November 2017, 84 of these recommendations remained open.

For example, in May 2017, we reported[28] that the 24 agencies[29] participating in FDCCI collectively had made progress on their data center closure efforts. Specifically, as of August 2016, these agencies had identified a total of 9,995 data centers, of which they reported having closed 4,388, and having plans to close a total of 5,597 data centers

[27]GAO, *Data Center Optimization: Agencies Need to Address Challenges and Improve Progress to Achieve Cost Savings Goal,* GAO-17-448 (Washington, D.C.: Aug. 15, 2017); *Data Center Optimization: Agencies Need to Complete Plans to Address Inconsistencies in Reported Savings,* GAO-17-388 (Washington, D.C.: May 18, 2017); *Data Center Consolidation: Agencies Making Progress, but Planned Savings Goals Need to Be Established [Reissued on March 4, 2016],* GAO-16-323 (Washington, D.C.: Mar. 3, 2016); *Data Center Consolidation: Reporting Can Be Improved to Reflect Substantial Planned Savings,* GAO-14-713 (Washington, D.C.: Sept. 25, 2014); *Data Center Consolidation: Strengthened Oversight Needed to Achieve Cost Savings Goal,* GAO-13-378 (Washington, D.C.: Apr. 23, 2013); *Data Center Consolidation: Agencies Making Progress on Efforts, but Inventories and Plans Need to Be Completed,* GAO-12-742 (Washington, D.C.: July 19, 2012); and *Data Center Consolidation: Agencies Need to Complete Inventories and Plans to Achieve Expected Savings,* GAO-11-565 (Washington, D.C.: July 19, 2011).

[28]GAO-17-388.

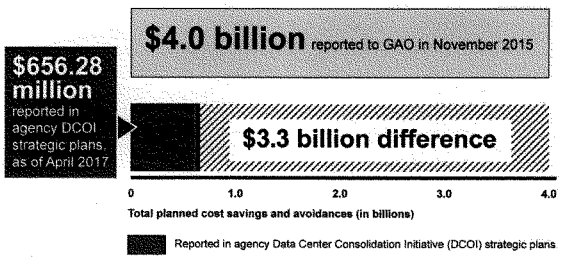
[29]The 24 agencies that FITARA requires to participate in FDCCI are the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, the Interior, Justice, Labor, State, Transportation, the Treasury, and Veterans Affairs; the Environmental Protection Agency; General Services Administration; National Aeronautics and Space Administration; National Science Foundation; Nuclear Regulatory Commission; Office of Personnel Management; Small Business Administration; Social Security Administration; and U.S. Agency for International Development.

through fiscal year 2019. Notably, the Departments of Agriculture, Defense, the Interior, and the Treasury accounted for 84 percent of the completed closures.

In addition, that report noted that 18 of the 24 agencies had reported achieving about $2.3 billion collectively in cost savings and avoidances from their data center consolidation and optimization efforts from fiscal year 2012 through August 2016. The Departments of Commerce, Defense, Homeland Security, and the Treasury accounted for approximately $2.0 billion (or 87 percent) of the total.

Further, 23 agencies reported about $656 million collectively in planned savings for fiscal years 2016 through 2018. This is about $3.3 billion less than the estimated $4.0 billion in planned savings for fiscal years 2016 through 2018 that agencies reported to us in November 2015. Figure 3 presents a comparison of the amounts of cost savings and avoidances reported by agencies to OMB and the amounts the agencies reported to us.

Figure 3: Comparison of Fiscal Years 2016-2018 Planned Cost Savings and Avoidances Reported to GAO in November 2015 versus Those Reported to the Office of Management and Budget in April 2017



Source: GAO analysis of agency data. | GAO-18-234T

As mentioned previously, FITARA required agencies to submit multi-year strategies to achieve the consolidation and optimization of their data centers no later than the end of fiscal year 2016. Among other things, this strategy was to include such information as data center consolidation and

optimization metrics, and year-by-year calculations of investments and cost savings through October 1, 2018.

Further, OMB's August 2016 guidance on data center optimization contained additional information for how agencies are to implement the strategic plan requirements of FITARA, and stated that agencies were required to publicly post their strategic plans to their agency-owned digital strategy websites by September 30, 2016.[30]

As of April 2017, only 7 of the 23 agencies that submitted their strategic plans—the Departments of Agriculture, Education, Homeland Security, and Housing and Urban Development; the General Services Administration; the National Science Foundation; and the Office of Personnel Management—had addressed all five elements required by the OMB memorandum implementing FITARA. The remaining 16 agencies either partially met or did not meet the requirements. For example, most agencies partially met or did not meet the requirements to provide information related to data center closures and cost savings metrics. The Department of Defense did not submit a plan and was rated as not meeting any of the requirements.

To better ensure that federal data center consolidation and optimization efforts improve governmental efficiency and achieve cost savings, in our May 2017 report, we recommended that 11 of the 24 agencies take action to ensure that the amounts of achieved data center cost savings and avoidances are consistent across all reporting mechanisms. We also recommended that 17 of the 24 agencies each take action to complete missing elements in their strategic plans and submit their plans to OMB in order to optimize their data centers and achieve cost savings. Twelve agencies agreed with our recommendations, 2 did not agree, and 10 agencies and OMB did not state whether they agreed or disagreed.

More recently, in August 2017, we reported that agencies needed to address challenges in optimizing their data centers in order to achieve cost savings.[31] Specifically, we noted that, according to the 24 agencies' data center consolidation initiative strategic plans as of April 2017, most agencies were not planning to meet OMB's optimization targets by the

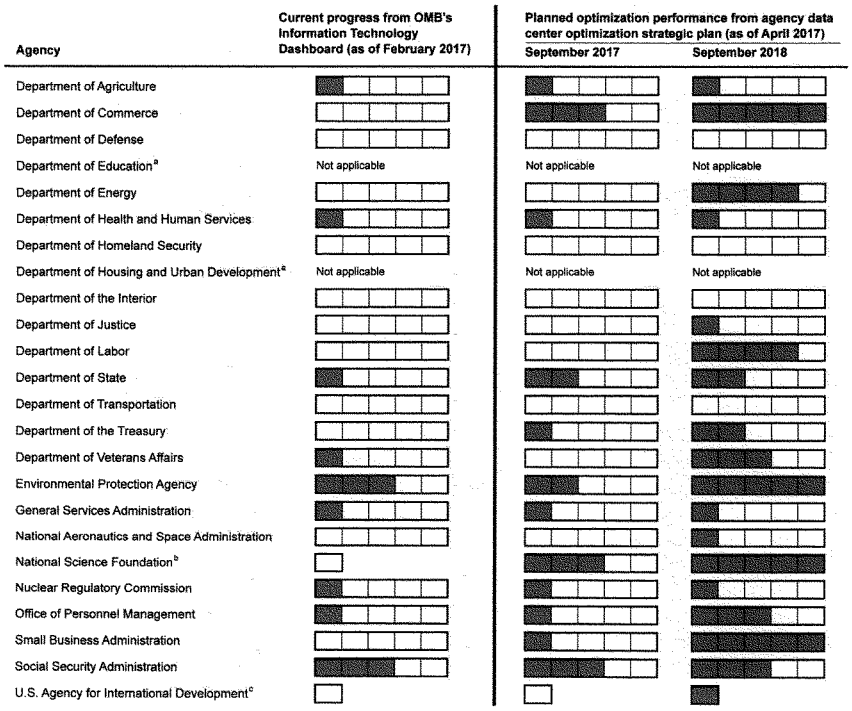
[30]OMB, *Data Center Optimization Initiative (DCOI)*, Memorandum M-16-19 (Washington, D.C.: Aug. 1, 2016).

[31]GAO-17-448.

end of fiscal year 2018. Further, of the 24 agencies, 5—the Department of Commerce and the Environmental Protection Agency, National Science Foundation, Small Business Administration, and U.S. Agency for International Development—reported plans to fully meet their applicable targets by the end of fiscal year 2018;[32] 13 reported plans to meet some, but not all, of the targets; 4 reported that they did not plan to meet any targets; and 2 did not have a basis to report planned optimization milestones because they do not report having any agency-owned data centers. Figure 4 summarizes agencies' progress in meeting OMB's optimization targets as of February 2017, and planned progress to be achieved by September 2017 and September 2018, as of April 2017.

[32]U.S. Agency for International Development did not have any tiered data centers in its data center inventory. Therefore, the agency only had a basis to report on its plans to meet the one OMB optimization metric applicable to its non-tiered data centers (i.e., server utilization and automated monitoring).

Figure 4: Agency-Reported Plans to Meet or Exceed the Office of Management and Budget's (OMB) Data Center Optimization Targets



Source: GAO analysis of OMB Information Technology Dashboard and agency data. | GAO-18-234T

Note: The five boxes in each column represent OMB's five optimization targets relative to (1) server utilization and automated monitoring; (2) energy metering; (3) power usage effectiveness; (4) facility utilization; and (5) virtualization. The shaded areas identify agencies' current and planned progress in meeting or exceeding OMB's fiscal year 2018 target for each metric.

[a]Agency did not have any reported agency-owned data centers in its inventory and, therefore, did not have a basis to measure and report on optimization progress.

[b]The National Science Foundation did not have any reported agency-owned tiered data centers in its inventory as of February 2017 and, therefore, did not have a basis to report on progress for four of the five metrics. However, according to the agency's April 2017 data center optimization strategic plan, it will have a basis to report on all five metrics in fiscal years 2017 and 2018.

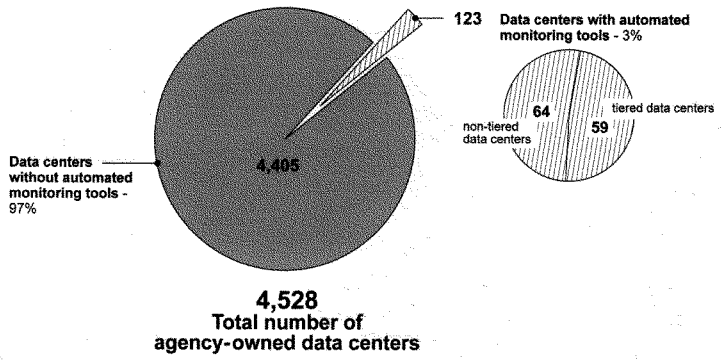
[c]The U.S. Agency for International Development did not have any reported agency-owned tiered data centers in its inventory and, therefore, did not have a basis to measure and report on four of the five metrics.

FITARA required OMB to establish a data center optimization metric specific to measuring server efficiency, and required agencies to report on progress in meeting this metric. To effectively measure progress against this metric, OMB directed agencies to replace the manual collection and reporting of systems, software, and hardware inventory housed within agency-owned data centers with automated monitoring tools and to complete this effort no later than the end of fiscal year 2018. Agencies were required to report progress in implementing automated monitoring tools and server utilization averages at each data center as part of their quarterly data center inventory reporting to OMB.

As of February 2017, 4 of the 22 agencies reporting agency-owned data centers in their inventory[33]— the National Aeronautics and Space Administration, National Science Foundation, Social Security Administration, and U.S. Agency for International Development—reported that they had implemented automated monitoring tools at all of their data centers. Further, 10 reported that they had implemented automated monitoring tools at between 1 and 57 percent of their centers, and 8 had not yet begun to report the implementation of these tools. In total, the 22 agencies reported that automated tools were implemented at 123 (or about 3 percent) of the 4,528 total agency-owned data centers, while the remaining 4,405 (or about 97 percent) of these data centers were not reported as having these tools implemented. Figure 5 summarizes the number of agency-reported data centers with automated monitoring tools implemented, including the number of tiered and non-tiered centers.

[33]Two agencies—the Department of Education and Housing and Urban Development—do not have any agency-owned data centers; therefore, they do not have a basis for implementing automated monitoring tools.

Figure 5: Number of Agency-Reported Data Centers with Automated Monitoring Tools Implemented, as of February 2017



Source: GAO analysis of Office of Management and Budget and agency data. | GAO-18-234T

To address challenges in optimizing federal data centers, in our August 2017 report, we made recommendations to 18 agencies and OMB. Ten agencies agreed with our recommendations, three agencies partially agreed, and six (including OMB) did not state whether they agreed or disagreed.

Risks Need to Be Fully Considered When Agencies Rate Their Major Investments on OMB's IT Dashboard

To facilitate transparency across the government in acquiring and managing IT investments, OMB established a public website—the IT Dashboard—to provide detailed information on major investments at 26 agencies, including ratings of their performance against cost and schedule targets. Among other things, agencies are to submit ratings from their CIOs, which, according to OMB's instructions, should reflect the level of risk facing an investment relative to that investment's ability to accomplish its goals. In this regard, FITARA includes a requirement for CIOs to categorize their major IT investment risks in accordance with OMB guidance.[34]

[34]40 U.S.C. § 11302(c)(3)(C).

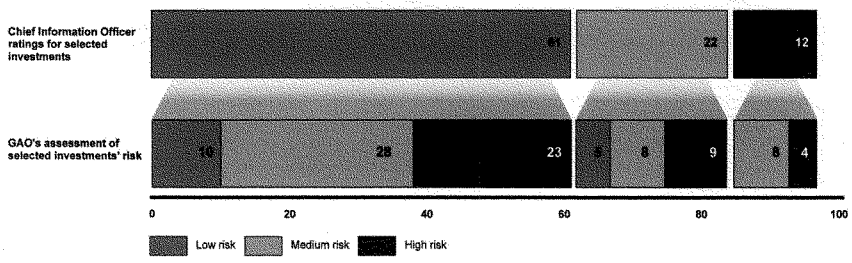
Over the past 6 years, we have issued a series of reports about the Dashboard that noted both significant steps OMB has taken to enhance the oversight, transparency, and accountability of federal IT investments by creating its Dashboard, as well as concerns about the accuracy and reliability of the data.[35] In total, we have made 47 recommendations to OMB and federal agencies to help improve the accuracy and reliability of the information on the Dashboard and to increase its availability. Most agencies agreed with our recommendations or had no comments. As of November 2017, 25 recommendations remained open.

In June 2016, we determined that 13 of the 15 agencies selected for in-depth review had not fully considered risks when rating their major investments on the Dashboard. Specifically, our assessments of risk for 95 investments at the 15 selected agencies[36] matched the CIO ratings posted on the Dashboard 22 times, showed more risk 60 times, and showed less risk 13 times. Figure 6 summarizes how our assessments compared to the selected investments' CIO ratings.

[35]GAO, *IT Dashboard: Agencies Need to Fully Consider Risks When Rating Their Major Investments*, GAO-16-494 (Washington, D.C.: June 2, 2016); *IT Dashboard: Agencies Are Managing Investment Risk, but Related Ratings Need to Be More Accurate and Available*, GAO-14-64 (Washington, D.C.: Dec. 12, 2013); *IT Dashboard: Opportunities Exist to Improve Transparency and Oversight of Investment Risk at Select Agencies*, GAO-13-98 (Washington, D.C.: Oct. 16, 2012); *IT Dashboard: Accuracy Has Improved, and Additional Efforts Are under Way to Better Inform Decision Making*, GAO-12-210 (Washington, D.C.: Nov. 7, 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, D.C.: Mar. 15, 2011); and *Information Technology: OMB's Dashboard Has Increased Transparency and Oversight, but Improvements Needed*, GAO-10-701 (Washington, D.C.: July 16, 2010).

[36]The 15 selected agencies were the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, the Interior, State, Transportation, the Treasury, and Veterans Affairs; the Environmental Protection Agency; General Services Administration; and Social Security Administration.

Figure 6: Comparison of Selected Investments' April 2015 Chief Information Officer Ratings to GAO's Assessments



Source: GAO's assessment of data from the Office of Management and Budget's Information Technology Dashboard. | GAO-18-234T

Aside from the inherently judgmental nature of risk ratings, we identified three factors which contributed to differences between our assessments and the CIO ratings:

- Forty of the 95 CIO ratings were not updated during April 2015 (the month we conducted our review), which led to differences between our assessments and the CIOs' ratings. This underscores the importance of frequent rating updates, which help to ensure that the information on the Dashboard is timely and accurately reflects recent changes to investment status.
- Three agencies' rating processes spanned longer than 1 month. Longer processes mean that CIO ratings are based on older data, and may not reflect the current level of investment risk.
- Seven agencies' rating processes did not focus on active risks. According to OMB's guidance, CIO ratings should reflect the CIO's assessment of the risk and the investment's ability to accomplish its goals. CIO ratings that do no incorporate active risks increase the chance that ratings overstate the likelihood of investment success.

As a result, we concluded that the associated risk rating processes used by the 15 agencies were generally understating the level of an investment's risk, raising the likelihood that critical federal investments in IT are not receiving the appropriate levels of oversight.

To better ensure that the Dashboard ratings more accurately reflect risk, we made 25 recommendations to 15 agencies to improve the quality and

frequency of their CIO ratings. Twelve agencies generally agreed with or did not comment on the recommendations and three agencies disagreed, stating that their CIO ratings were adequate. However, we noted that weaknesses in these three agencies' processes still existed and that we continued to believe our recommendations were appropriate.

Agencies Need to Increase Their Use of Incremental Development Practices

OMB has emphasized the need to deliver investments in smaller parts, or increments, in order to reduce risk, deliver capabilities more quickly, and facilitate the adoption of emerging technologies. In 2010, it called for agencies' major investments to deliver functionality every 12 months and, since 2012, every 6 months. Subsequently, FITARA codified a requirement that agency CIOs certify that IT investments are adequately implementing incremental development, as defined in the capital planning guidance issued by OMB.[37] Further, subsequent OMB guidance on the law's implementation, issued in June 2015, directed agency CIOs to define processes and policies for their agencies which ensure that they certify that IT resources are adequately implementing incremental development.[38]

However, in May 2014, we reported[39] that 66 of 89 selected investments at five major agencies[40] did not plan to deliver capabilities in 6-month cycles, and less than half of these investments planned to deliver functionality in 12-month cycles. We also reported that only one of the five agencies had complete incremental development policies. Accordingly, we recommended that OMB clarify its guidance on incremental development and that the selected agencies update their associated policies to comply with OMB's revised guidance (once made available), and consider the factors identified in our report when doing so.

Four of the six agencies agreed with our recommendations or had no comments, one agency partially agreed, and the remaining agency disagreed with the recommendations. The agency that disagreed did not

[37]40 U.S.C. § 11319(b)(1)(B)(ii).

[38]OMB, Memorandum M-15-14.

[39]GAO, *Information Technology: Agencies Need to Establish and Implement Incremental Development Policies*, GAO-14-361 (Washington, D.C.: May 1, 2014).

[40]These five agencies are the Departments of Defense, Health and Human Services, Homeland Security, Transportation, and Veterans Affairs.

believe that its recommendations should be dependent upon OMB taking action to update guidance. In response, we noted that only one of the recommendations to that agency depended upon OMB action, and we maintained that the action was warranted and could be implemented.

Subsequently, in August 2016, we reported[41] that agencies had not fully implemented incremental development practices for their software development projects. Specifically, we noted that, as of August 31, 2015, 22 federal agencies[42] had reported on the Dashboard that 300 of 469 active software development projects (approximately 64 percent) were planning to deliver usable functionality every 6 months for fiscal year 2016, as required by OMB guidance. The remaining 169 projects (or 36 percent) that were reported as not planning to deliver functionality every 6 months, agencies provided a variety of explanations for not achieving that goal. These included project complexity, the lack of an established project release schedule, or that the project was not a software development project.

Further, in conducting an in-depth review of seven selected agencies' software development projects,[43] we determined that 45 percent of the projects delivered functionality every 6 months for fiscal year 2015 and 55 percent planned to do so in fiscal year 2016. However, significant differences existed between the delivery rates that the agencies reported to us and what they reported on the Dashboard. For example, for four agencies (the Departments of Commerce, Education, Health and Human Services, and Treasury), the percentage of delivery reported to us was at least 10 percentage points lower than what was reported on the Dashboard. These differences were due to (1) our identification of fewer software development projects than agencies reported on the Dashboard

[41]GAO, *Information Technology Reform: Agencies Need to Increase Their Use of Incremental Development Practices*, GAO-16-469 (Washington, D.C.: Aug. 16, 2016).

[42]These 22 agencies are the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, the Interior, Justice, Labor, State, Transportation, the Treasury, and Veterans Affairs; the Environmental Protection Agency, General Services Administration, National Archives and Records Administration, Office of Personnel Management, Small Business Administration, Social Security Administration, and U.S. Agency for International Development.

[43]These seven agencies are the Departments of Commerce, Defense, Education, Health and Human Services, Homeland Security, Transportation, and the Treasury. These agencies were chosen because they reported a minimum of 12 investments that were at least 50 percent or more in development on the Dashboard for fiscal year 2015.

and (2) the fact that information reported to us was generally more current than the information reported on the Dashboard.

We concluded that, by not having up-to-date information on the Dashboard about whether the project is a software development project and about the extent to which projects are delivering functionality, these seven agencies were at risk that OMB and key stakeholders may make decisions regarding the agencies' investments without the most current and accurate information. As such, we recommended that the seven selected agencies review major IT investment project data reported on the Dashboard and update the information as appropriate, ensuring that these data are consistent across all reporting channels.

Finally, while OMB has issued guidance requiring agency CIOs to certify that each major IT investment's plan for the current year adequately implements incremental development, only three agencies (the Departments of Commerce, Homeland Security, and Transportation) had defined processes and policies intended to ensure that the CIOs certify that major IT investments are adequately implementing incremental development.[44] Accordingly, we recommended that the remaining four agencies—the Departments of Defense, Education, Health and Human Services, and the Treasury—establish policies and processes for certifying that major IT investments adequately use incremental development.

The Departments of Education and Health and Human Services agreed with our recommendation, while the Department of Defense disagreed and stated that its existing policies address the use of incremental development. However, we noted that the department's policies did not comply with OMB's guidance and that we continued to believe our recommendation was appropriate. The Department of the Treasury did not comment on its recommendation.

More recently, in November 2017, we reported that agencies needed to improve their certification of incremental development.[45] Specifically, agencies reported that 62 percent of major IT software development investments were certified by the agency CIO for implementing adequate

[44]Office of Management and Budget, *FY2017 IT Budget – Capital Planning Guidance.*

[45]GAO, *Information Technology Reform: Agencies Need to Improve Certification of Incremental Development,* GAO-18-148 (Washington, D.C.: Nov. 7, 2017).

incremental development in fiscal year 2017, as required by FITARA as of August 2016. Table 1 identifies the number of federal agency major IT software development investments certified for adequate incremental development, as reported on the IT Dashboard for fiscal year 2017.

Table 1: Federal Agency Major Information Technology (IT) Software Development Investments Certified for Adequate Incremental Development, as Reported on the IT Dashboard for Fiscal Year 2017

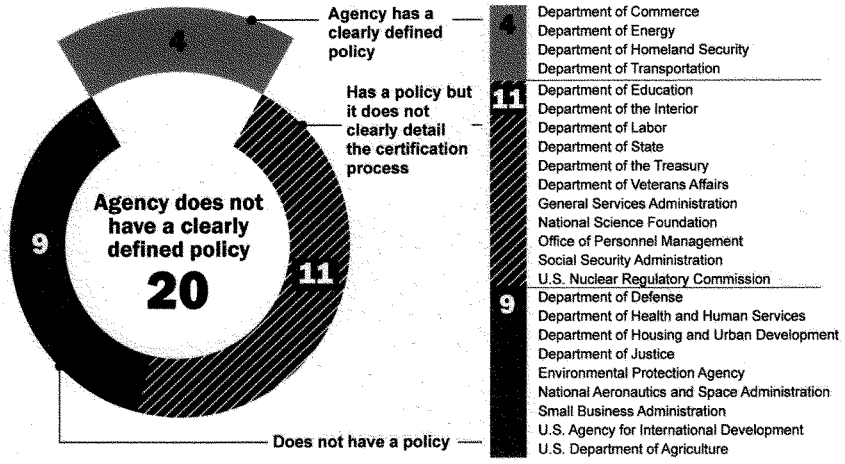
Agency	Number of major investments	Number of investments certified for adequate incremental development	Percent of investments certified for adequate incremental development
U.S. Department of Agriculture	7	4	57%
Department of Commerce	11	10	91%
Department of Defense	33	10	30%
Department of Education	7	6	86%
Department of Energy	3	1	33%
Department of Health and Human Services	24	20	83%
Department of Homeland Security	10	6	60%
Department of Housing and Urban Development	1	1	100%
Department of the Interior	6	4	67%
Department of Justice	2	2	100%
Department of Labor	1	1	100%
Department of State	5	5	100%
Department of Transportation	12	3	25%
Department of the Treasury	10	3	30%
Department of Veterans Affairs	10	10	100%
Environmental Protection Agency	1	1	100%
General Services Administration	7	7	100%
Office of Personnel Management	3	3	100%
Small Business Administration	2	2	100%
Social Security Administration	10	3	30%
U.S. Agency for International Development	1	1	100%
Total	**166**	**103**	**62%**

Source: GAO analysis of IT Dashboard data as of August 31, 2016. | GAO-18-234T

Officials from 21 of the 24 agencies in our review reported that challenges hindered their ability to implement incremental development, which included: (1) inefficient governance processes; (2) procurement delays; and (3) organizational changes associated with transitioning from a traditional software methodology that takes years to deliver a product, to incremental development, which delivers products in shorter time frames. Nevertheless, 21 agencies reported that the certification process was beneficial because they used the information from the process to assist with identifying investments that could more effectively use an incremental approach, and used lessons learned to improve the agencies' incremental processes.

In addition, as of August 2017, only 4 of the 24 agencies had clearly defined CIO incremental development certification policies and processes that contained descriptions of the role of the CIO in the process and how the CIO's certification will be documented; and included definitions of incremental development and time frames for delivering functionality consistent with OMB guidance. Figure 7 summarizes our analysis of agencies' policies for CIO certification of the adequate use of incremental development in IT investments.

Figure 7: Analysis of Agencies' Policies for Chief Information Officer Certification of the Adequate Use of Incremental Development in Information Technology Investments



Source: GAO analysis of agency Chief Information Officer certification policies and processes. | GAO-18-234T

Lastly, we reported that OMB's capital planning guidance for fiscal year 2018[48] (issued in June 2016) lacked clarity regarding how agencies were to address the requirement for certifying adequate incremental development. While the 2018 guidance stated that agency CIOs are to provide the certifications needed to demonstrate compliance with FITARA, the guidance did not include a specific reference to the provision requiring CIO certification of adequate incremental development. We noted that, as a result of this change, OMB placed the burden on agencies to know and understand how to demonstrate compliance with FITARA's incremental development provision. Further, because of the lack of clarity in the guidance as to what agencies were to provide, OMB

[48]OMB, FY 2017 IT Budget–Capital Planning Guidance.

could not demonstrate how the fiscal year 2018 guidance ensured that agencies provided the certifications specifically called for in the law.

Accordingly, in August 2017, OMB issued its fiscal year 2019 guidance,[47] which addressed the weaknesses we identified in the previous fiscal year's guidance. Specifically, the revised guidance requires agency CIOs to make an explicit statement regarding the extent to which the CIO is able to certify the use of incremental development, and to include a copy of that statement in the agency's public congressional budget justification materials. As part of the statement, an agency CIO must also identify which specific bureaus or offices are using incremental development on all of their investments.

In our November 2017 report, we made 19 recommendations to 17 agencies to improve reporting and certification of incremental development. Eleven agencies agreed with our recommendations, 1 partially agreed, and 5 did not state whether they agreed or disagreed. OMB disagreed with several of our conclusions, which we continued to believe were valid.

In total, from May 2014 through November 2017, we have made 42 recommendations to OMB and agencies to improve their implementation of incremental development. As of November 2017, 34 of our recommendations remained open.

Agencies Need to Better Manage Software Licenses to Achieve Savings

Federal agencies engage in thousands of software licensing agreements annually. The objective of software license management is to manage, control, and protect an organization's software assets. Effective management of these licenses can help avoid purchasing too many licenses, which can result in unused software, as well as too few licenses, which can result in noncompliance with license terms and cause the imposition of additional fees.

As part of its PortfolioStat initiative, OMB has developed policy that addresses software licenses. This policy requires agencies to conduct an annual, agency-wide IT portfolio review to, among other things, reduce commodity IT spending. Such areas of spending could include software licenses.

[47]OMB, FY 2019 IT Budget–Capital Planning Guidance.

In May 2014, we reported on federal agencies' management of software licenses and determined that better management was needed to achieve significant savings government-wide.[48] In particular, 22 of the 24 major agencies did not have comprehensive license policies and only 2 had comprehensive license inventories. In addition, we identified five leading software license management practices, and the agencies' implementation of these practices varied.

As a result of agencies' mixed management of software licensing, agencies' oversight of software license spending was limited or lacking, thus potentially leading to missed savings. However, the potential savings could be significant considering that, in fiscal year 2012, 1 major federal agency reported saving approximately $181 million by consolidating its enterprise license agreements, even when its oversight process was ad hoc. Accordingly, we recommended that OMB issue needed guidance to agencies; we also made 135 recommendations to the 24 agencies to improve their policies and practices for managing licenses. Among other things, we recommended that the agencies regularly track and maintain a comprehensive inventory of software licenses and analyze the inventory to identify opportunities to reduce costs and better inform investment decision making.

Most agencies generally agreed with the recommendations or had no comments. As of November 2017, 112 of the recommendations had not been implemented. Table 2 reflects the extent to which agencies implemented recommendations in these areas.

Table 2: Agencies' Implementation of Software License Management Recommendations

Agency	Tracks and maintains a comprehensive inventory	Uses inventory to make decisions and reduce costs
Department of Agriculture	●	●
Department of Commerce	◐	●
Department of Defense	◐	◐
Department of Education	●	●
Department of Energy	◐	◐

[48]GAO, *Federal Software Licenses: Better Management Needed to Achieve Significant Savings Government-Wide*, GAO-14-413 (Washington, D.C.: May 22, 2014).

Agency	Tracks and maintains a comprehensive inventory	Uses inventory to make decisions and reduce costs
Department of Health and Human Services	◐	◐
Department of Homeland Security	◐	◐
Department of Housing and Urban Development	◐	◐
Department of Justice	◐	◐
Department of Labor	●	◐
Department of State	◐	◐
Department of the Interior	◐	◐
Department of the Treasury	◐	◐
Department of Transportation	◐	◐
Department of Veterans Affairs	●	●
Environmental Protection Agency	◐	◐
General Services Administration	●	●
National Aeronautics and Space Administration	●	●
Nuclear Regulatory Commission	◐	◐
National Science Foundation	◐	◐
Office of Personnel Management	◐	◐
Small Business Administration	◐	◐
Social Security Administration	◐	◐
U.S. Agency for International Development	●	●

Key:

● Fully—the agency provided evidence that it fully addressed this recommendation

◐ Partially—the agency had plans to address this recommendation

Source: GAO analysis. | GAO-18-234T

In conclusion, with the enactment of FITARA, the federal government has an opportunity to save billions of dollars; improve the transparency and management of IT acquisitions and operations; and to strengthen the authority of CIOs to provide needed direction and oversight. The forum we held also recommended that CIOs be given more authority, and noted the important role played by the Federal CIO.

Most agencies have taken steps to improve the management of IT acquisitions and operations by implementing key FITARA initiatives,

including data center consolidation, efforts to increase transparency via OMB's IT Dashboard, incremental development, and management of software licenses; and they have continued to address recommendations we have made over the past several years. However, additional improvements are needed, and further efforts by OMB and federal agencies to implement our previous recommendations would better position them to fully implement FITARA.

To help ensure that these efforts succeed, OMB's and agencies' continued implementation of FITARA is essential. In addition, we will continue to monitor agencies' implementation of our previous recommendations.

Chairmen Meadows and Hurd, Ranking Members Connolly and Kelly, and Members of the Subcommittees, this completes my prepared statement. I would be pleased to respond to any questions that you may have at this time.

GAO Contacts and Staff Acknowledgments

If you or your staff have any questions about this testimony, please contact Dave Powner, Director, Information Technology at (202) 512-9286 or pownerd@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. GAO staff who made key contributions to this testimony are Kevin Walsh (Assistant Director), Chris Businsky, Rebecca Eyler, Meredith Raymond, and Bradley Roach (Analyst in Charge).

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Mr. HURD. Thank you, Mr. Powner.

Now every agency is going to provide one oral remark, and I believe, Mr. Everett, you're going to do that for Department of Energy. So now you're recognized for 5 minutes.

STATEMENT OF MAX EVERETT

Mr. EVERETT. Good afternoon, Chairman Hurd and Ranking Member Meadows, Ranking Member Kelly, and Ranking Member Connolly, and distinguished members of the committee.

On behalf of the Secretary and deputy secretary, I want to thank you for inviting me to testify about the Department of Energy's implementation of FITARA. FITARA and its cybersecurity complement, FISMA, provide me the authority I need to manage DOE's information technology resources and cybersecurity program.

I would also like to just mention, my colleagues have come up here who are helping us, that you introduced, they are going to be a critical part of telling you about the progress we're making at the Department.

I would also like to acknowledge the dedicated career and contractor IT and cybersecurity professionals across the Department whose critical efforts transcend changes in administration. The team provided me a strong baseline from which to build, specifically, Mr. Robby Green, who did an outstanding job as the acting DOE CIO prior to my appointment.

In order to effectively exercise FITARA responsibilities, I now report directly to the Secretary and deputy secretary, as Mr. Powner noted. They recognize not only the statutory requirement for this, but the best practice for public and private sector organizations to have technology leadership represented at the executive level.

This change originated with a secretarial memorandum, and is reflected in the DOE organizational chart. I have regular meetings with the deputy secretary who every month calls to order the Department's senior leadership to evaluate progress on DOE's IT and cybersecurity strategic goals. My reporting and working relationships with them are evidence of the success of this FITARA requirement. Direct access to senior leadership is critical to effective IT management at the program office level as well.

My office is developing guidance to program offices with embedded CIOs or officials with CIO-like functions, that they follow the FITARA reporting model and elevate these officials to a direct reporting relationship with their respective senior leadership.

The deputy secretary has instructed that my office should be engaged in the hiring process for any IT management series 2210s across the Department. Both at DOE and throughout Federal Government, the traditional outdated model of an IT worker is a challenge. We need professionals with multidisciplinary skills, not just the coding and network and typical skills that we look at for IT professionals.

With respect to consolidation and optimization of data centers, we've closed 84 data centers since 2010, resulting in savings of approximately $21 million, and plan to shutter another 11 more by the end of fiscal year 2018. That said, we need to do more in this area, which is why we're examining ways to effectively accelerate that process.

One catalyst for optimizing DOE data centers is our expanded use of cloud services. Our diverse department with 97 sites in 27 States can see significant value from increasing our use of cloud computing.

The National Labs are an integral component of the department, and as CIO, I engage with the labs through a number of means, including the annual laboratory planning and appraisal reviews. I have the opportunity to comment on National Lab IT activities and can refocus our efforts to address our concerns through development of performance evaluation and measurement plans, which define notable outcomes that the labs must meet in the coming year. I have regular meetings with our National Lab CIOs. I also speak regularly with the National Lab directors, as well as the lab operating board and participate in their governance meetings.

DOE is closely monitoring the pending MGT Act to leverage any benefits that come out of that. We intend to use FITARA as well to continue to be more granular and transparent in our IT cost in order to prioritize the digital transformation that we need to undertake as a department.

In detailing the changes, improvements, and the many challenges that I have seen, it's been my aim to demonstrate that our department is moving in the right direction. The Department's IT and cybersecurity governance mechanisms are inclusive, transparent, and we're seeking to facilitate timely performance of our diverse mission.

I firmly believe we're continuing to advance and improve, which would not be possible without the authorities granted by FITARA. I'm encouraged by the interest and the efforts of this committee and the efforts as well shown by our leadership at the Department, and I look forward to achieving those shared goals.

It's been my distinct honor to testify here today. And I would be pleased now to address your questions. Thank you.

[Prepared joint statement of Mr. Everett, Ms. Doone, Mr. Bashista, and Ms. Helland follows:]

TESTIMONY of the U.S. Department of Energy

Max Everett
Chief Information Officer

and

Alison Doone
Chief Financial Officer (*acting*)

and

John Bashista
Senior Procurement Executive

and

Barbara Helland
Associate Director of Advanced Scientific Computing Research

Before the

Subcommittees on Information Technology and Government Operations of the
Committee on Oversight and Government Reform
U.S. House of Representatives

November 15, 2017

Good afternoon Chairmen Hurd and Meadows, Ranking Members Kelly and Connolly, and distinguished Members of the Committee. On behalf of the Secretary and Deputy Secretary of Energy, I thank you for inviting me to testify about the Department of Energy's (DOE or Department) implementation of what is commonly referred to as the *Issa-Connolly Federal Information Technology Acquisition Reform Act* (*FITARA*). *FITARA* and its complement on the cybersecurity front, the *Federal Information Security Modernization Act* (*FISMA*), provide me the authority necessary to manage DOE's information technology (IT) resources and cybersecurity program. Today, I will testify on the progress we are making in exercising our *FITARA* authority, discuss the status of key programs, and share insights into some of our challenges.

To begin, I would be remiss to not acknowledge the dedicated career and contractor IT and cybersecurity professionals across the Department whose critical efforts transcend changes in administrations. On my first day, the team provided me a strong baseline from which to build.

ORGANIZATION

As the DOE Chief Information Officer (CIO), I report directly to the Secretary and Deputy Secretary. The Secretary and Deputy Secretary recognized not only the requirement of *FITARA* on this issue—but the driver behind it: the best practice for public and private sector organizations to have technology leadership represented at the executive-level of all organizations. I have direct access to the Secretary and Deputy Secretary and take direction only from them. This change originated with a Secretarial memorandum and is reflected in DOE's organizational chart.

The Secretary has made cybersecurity a priority for the Department, both in our role as the Sector-Specific Agency for the Energy sector, and by adopting best-in-class cybersecurity risk management practices across the Department. On an operational level, I have regular meetings with the Deputy Secretary, who every month calls to order the Department's senior leadership to evaluate progress on DOE's IT and cybersecurity strategic goals. My reporting and working relationships with them are evidence of the success of this *FITARA* requirement.

WORKFORCE

My Office is working with the Department's Chief Human Capital Officer (CHCO) to develop and improve guidance to DOE program offices with embedded CIOs (or officials with CIO-like functions), with the expectation that they follow the *FITARA* reporting model and elevate these officials to a direct reporting relationship with their respective senior leadership. Per *FITARA*, my Office is engaged with hiring officials for these positions and rating their performance. The Deputy Secretary has instructed the CHCO that my Office should be engaged in the hiring process for anyone slotted in an Office of Personnel Management IT Management Series 2210. While this direction will result in me obtaining a more comprehensive view of—and the ability to set expectations and establish priorities for—the Department's IT workforce, I recognize that IT and cybersecurity work is performed by individuals across a variety of duty stations. Both at DOE and throughout the Federal Government, the traditional, outdated model of an "IT worker" is a challenge, much like our legacy IT systems and unsupported software. We need professionals with multi-disciplinary skill sets, not just coding or network operations. They need to understand, for example, policy development and implementation, acquisitions, contracts, human resources, technical writing, supply chain and risk management, and inter- and intra-agency coordination. These professionals need to be customer-focused, tailoring systems and operations to meet customer needs from the start, instead of trying to drive customer behavior from the top-down.

DATA CENTER CONSOLIDATION

Frankly, the Department is not where it should be in this area. Our current inventory includes 289 data centers; we are working to increase the scope and fidelity of this inventory. We have closed 84 data centers since fiscal year (FY) 2010 resulting in savings of approximately $21 million and plan to shutter another 11 more by the end of FY 2018. We are examining ways to do more, and to accelerate the process. One catalyst for optimizing DOE data centers is our

expanded use of cloud services. Our diverse Department, with 97 sites in 27 states, will see significant value from the use of cloud computing.

INCREMENTAL DEVELOPMENT

Through our *FITARA* IT acquisition approval process, we require Departmental elements to certify the use of incremental development or explain why it is not indicated. We also validate the use of incremental development through our IT Dashboard process, and during our Investment Review Board's examinations of major IT investments across DOE's program offices. Please note that most of our projects involve operations and maintenance, and not development, modernization, or enhancement. We are aware that we need to modernize—while it is difficult at first, we know it will pay dividends in the long run.

PORTFOLIO REVIEW EFFORTS

Of the Department's FY 2018 $2.1 billion IT budget, 16 major IT investments total $502 million. Following the Subcommittees' issuance of the *FITARA* Scorecard 4.0, with assistance from our colleagues in the Government Accountability Office, we deconstructed our scores to identify ways to improve our overall performance. We learned that the Subcommittees want CIOs to capture and reflect risk more accurately. Accordingly, we recalibrated our risk ratings for our major IT investments to be more aggressive and forward-looking. This ensures that we adequately consider, *inter alia*, losses of good program managers and changes in vendors. Although we did not identify any major IT investments as falling into the Office of Management and Budget's (OMB) red category, we recently downgraded several to yellow pursuant to our new risk calculus.

From FY 2012 to FY 2017, we reported approximately $66 million in cost savings, of which $5 million came in FY 2017. We know that we can do better in this area.

SOFTWARE LICENSE MANAGEMENT

We have made progress when it comes to improving software license management. In August 2017, we issued an enterprise-wide data call to develop a baseline inventory of software licenses purchased, deployed, and used. We will conduct another data call to collect information on software licensing contracts. With respect to policy documentation, by this December we plan to complete a software management centralization plan (which is in draft form) and to develop a vendor management strategy. We can also leverage the Department of Homeland Security's Continuous Diagnostics and Mitigation program's tools and dashboards to locate, identify, and validate software (and hardware) assets within our managed environments.

The Department's Senior Procurement Executive, working with my Office, will be issuing guidance to program offices that will strengthen existing guidance regarding the CIO's review and approval of IT acquisitions. This maturing *FITARA* acquisition review process gives us valuable information on software licensing, and provides an avenue for inquiring into software use enterprise-wide. While we have realized some cost savings in this area, we recognize that a

more robust, enterprise-wide, coordinated effort using a variety of tools and approaches is indicated.

APPLICATION OF FITARA TO THE NATIONAL LABORATORIES

At a previous hearing before the Subcommittees, Ranking Member Connolly expressed a strong interest in *FITARA*'s application to the National Laboratories (National Labs).

As CIO, I engage with all National Labs through the Annual Laboratory Planning and Appraisal reviews. Not only do I have the opportunity to comment on National Lab IT activities, I can re-focus their efforts to address my concerns through the development of Performance Evaluation and Measurement Plans that define notable outcomes that the National Labs must meet in the upcoming year.

By way of illustration, the Office of Science (SC), which oversees ten National Labs for the Department, uses a planning and appraisal process with a common structure and scoring system. In FY 2016, SC added IT reporting to its Business Systems performance goal for its National Labs, and requested information on their current and planned IT and mission-related computing investments, as well as a description of their respective processes for approving computing procurements. In FY 2017, SC worked with the National Labs' CIOs to further refine their processes and to establish a common format; data from that effort has been shared with me.

DOE FITARA COORDINATION

Following the Secretary and Deputy Secretary's leadership, my counterparts—the CHCO, the Senior Procurement Executive, and the Acting Chief Financial Officer (CFO)—and I meet regularly and closely coordinate on the effective use of *FITARA* authority at DOE. Building on the coordination between my Office and that of the CFO, which resulted in the issuance of joint IT budget guidance for FY 2018, this year we again issued IT budget guidance and hosted an OMB briefing for DOE's Capital Planning and Investment Control officers on the new Technology Business Management approach. As mentioned earlier, the Department will issue guidance on hiring of CIOs and 2210s to ensure that my Office is directly involved in hiring and performance assessments for those CIOs. As previously stated with respect to procurements, the Senior Procurement Executive, in coordination with my Office, will be issuing guidance that will strengthen existing guidance relating to my approval of IT purchases.

This coordination also extends to the Department's program offices. One program office approached my Office for assistance with reviewing draft procurement documents for a proposed $1 billion procurement, which included IT and cybersecurity elements, to ensure that the program office was aligned with my Office's strategy from the ground up. In another case, my Office and a program office that manages a world-class data transport network are examining ways to leverage this asset enterprise-wide.

IT ACQUISTION REFORM AND SECURITY

As I mentioned at the start, *FITARA* and *FISMA* authorities provide me the leverage necessary to push toward stretch goals, which I acknowledge may be uncomfortable to some. The Department needs a Digital Transformation, and we have identified several areas for immediate action, namely:

- Headquarters Network Refresh/National Capital Region Network Upgrade
- Integrated Joint Cybersecurity Coordination Center Unclassified Security Operations Center
- Unified Communications/Voice over Internet Protocol
- Headquarters Data Center Migration (Infrastructure as a Service)
- Secure Mobility and Remote Access Enhancements

We intend to use *FITARA* to continue to be more granular and transparent with our IT costs in order to efficiently and effectively implement our Digital Transformation efforts.

CONCLUSION

In detailing the changes, improvements, and challenges that I have seen during my short time as the DOE CIO, it has been my aim to demonstrate that the Department is moving in the right direction. The Department's robust IT and cybersecurity governance mechanisms are inclusive, transparent, and facilitate timely performance of DOE's diverse mission. I firmly believe we are continuing to advance and improve, which would not be possible without the authorities provided to us by *FITARA*. I am encouraged by the interest in and support of our efforts shown by the leadership and Members of the Subcommittees, and I look forward to achieving our shared goals.

It has been my distinct honor to testify before you today, and I would be pleased to address your questions.

Mr. HURD. Thank you, Mr. Everett.

Now I'm going to recognize the gentleman from Montana, Mr. Gianforte, for 5 minutes of questions.

Mr. GIANFORTE. Thank you, Mr. Chairman and Ranking Member Kelly.

I'm new on the Hill. I spent my career in the private sector doing IT deployments for large organizations, including deployments at 170 Federal agencies. So I very much appreciate you each being here.

I wanted to focus on three specific things: First, for Mr. Powner generally and then Mr. Everett specifically at DOE, around some best practices that are used in the private sector and to what extent they're present. You've already mentioned one, Mr. Everett, the movement to the cloud. Why don't we start there.

I'm curious, Mr. Powner, to what extent is movement to the cloud a priority within the agencies that you work with and audit? And do you have any metrics around percentage of enterprise applications moved into cloud facilities?

Mr. POWNER. I don't have good metrics on those percentages, but we have tracked movement to the cloud as a percentage of their IT budget. That's been somewhere in like—on average, it's about 4 to 5 percent when you look at agencies' IT budget.

So the bottom line on this is clearly there needs to be more movement to the cloud. You know, we started this years ago, and the security was the big concern, and then you had the intel community going to the cloud. Folks felt more comfortable with that. We clearly need to go more to the cloud.

I think when you look at the data center situation, there are about at least a third of the agencies that project they're going to be nowhere near optimizing their centers, and they ought to be looking to outsource that and go towards the cloud, you know, for many of those data centers and everything.

A couple agencies are already out of the business. We probably need a few more of them if they can't manage this more effectively.

Mr. GIANFORTE. And when you say cloud, do you mean consolidated data centers or are you actually moving to more commercial, multi-tenant applications?

Mr. POWNER. It's all the over the board. There's—you know, infrastructure is a service. You've also got software as a service. So it's both the infrastructure and some of the applications.

Clearly, when you look at the commodity or business systems, there is—that's kind of a no-brainer. In a lot of those areas we ought to be going more towards cloud services. There is some big applications, electronic health records, I know we've talked to the chairman about this a lot, with the VA and DOD going to the common electronic health record. There's commercial products that are out there.

Mr. GIANFORTE. Mr. Everett, at DOE.

Mr. EVERETT. Sure. So I would certainly address, across the Federal Government, I think the numbers are disappointing. At DOE, I think they're—you know, having come in, I think they're very disappointing. We need to be moving much more quickly on—again, I think you hit on that—the commodity IT activities we need to move more quickly to the cloud. I think that will help us certainly

with data center. I think there is some value to moving out of Federal data centers into hosted environments, not as an end goal, but I think that starts to break some of the workforce and cultural challenges we have.

We've got to have the right skill sets to make a move to a cloud. It's a different—it is different skill sets. It's much more about managing services, managing service levels, rather than managing people and sort of the turning dials. We've got to do a lot of work around that. Those things have to go together. I believe they can go together in peril.

In some cases, you know—frankly, my hope is that we just find some things and rip the Band-Aid and just move things. We've got a lot of commodity things that should, frankly, be able to move very quickly to the cloud.

Mr. GIANFORTE. Yeah. As we talk about these scorecards, it might be interesting to look at what percentage have we moved to the cloud. I know in our own experience doing these enterprise deployments, an off-the-shelf cloud deployment typically can speed deployment by 5X and typically reduces operating cost by 80 percent over the life of the system, and that's just good for taxpayers and it's better from a security perspective.

The second area I want to talk on, you mentioned the shortage of labor, particularly in the cybersecurity area. One of the practices in the private sector is the use of commercial third-party firms for either cybersecurity audits or penetration testing. To what extent is that a general practice, Mr. Powner, and then specifically at DOE?

Mr. POWNER. I think when you start looking at contractors and third parties, it's pretty heavy in the Federal Government. I think the challenge in the Federal Government is having enough of an IT workforce to oversee those contractors. I mean, because we've got prime contracts and then you've got program management that's being outsourced to private sector firms. Clearly, the security penetration tests and all that, that's going out.

So the challenge, I think, in the government is having enough of qualified IT workforce to oversee those key contracts where we don't have the internal skills.

Mr. GIANFORTE. Okay. Mr. Everett, we have about 30 seconds.

Mr. EVERETT. I would concur with that. I think one of our challenges is we're, you know—frankly, we're very contractor heavy. We depend on the skills that our contractors bring, but we need—our Federal workforce has got to have some skills in terms of, again, managing them, managing business requirements, managing the budgets around that. I think those are a critical element to doing that. And we've got—and, again, that takes some of the Federal workforce. They have to know the right questions. They have to be looking for the right solutions to then bring in the proper contracting and talent and capability.

And I think you know that recruiting, you know from your private sector experience as I do, that's an extraordinary challenge we face right now.

Mr. GIANFORTE. Yeah. Okay. Thank you.

I yield back, Mr. Chairman.

Mr. HURD. The gentleman yields back.

I now recognize Ms. Kelly for 5 minutes of questions.

Ms. KELLY. Thank you, Mr. Chair.

The committee's scorecard shows that since the release of one of its last scorecards, June 2017, many agencies appear to have hit roadblocks in their progress under FITARA. For example, as we've talked about, the current scorecard shows that the overall letter grades for 15 agencies stayed the same, 6 went down, and only 3 increased.

Mr. Powner, in which of the five key areas of FITARA that was scored has GAO found agencies are struggling the most?

Mr. POWNER. Well, clearly, when you look back on the 4.0, I think the data center optimization, because we added the metrics category there, it wasn't just based on savings, and that was at the request of a lot of folks.

And, again, there's about—there's 2 agencies that are out of the data center business, 3 agencies doing a decent job, and 19 that I would say are doing poorly, and that's a big reason why the grades went down. And then now with 5.0, when you have 17 agencies getting Fs because they don't have a software license inventory, that's a key reason. So those are the two big ones.

Ms. KELLY. And so what accounts for the challenges? Is it just the software license, or what's accounting for the challenges?

Mr. POWNER. I think when you look at the data centers, I do think it's—given where we were at, for instance, on server utilization, to try to go from a 9 to 12 percent to 65 percent metric that OMB has, okay, that's a big leap.

The software licensing, I have a hard time understanding that. We did a report 4 years ago that told agencies that they should get software licenses. It was in FITARA. It's one of the seven sections. You followed up with MEGABYTE. I think it's inexcusable that we do not have software license inventories at this point in time.

Ms. KELLY. Thank you.

Mr. Everett, the Department of Energy was one of the three agencies whose letter grade actually went down. What are the challenges you're facing?

Mr. EVERETT. There's a number, as you can clearly see. I think, look, the reality is our scorecard accurately represents some significant challenges we have. And Mr. Powner hit on, frankly, two of them. One of them is we have too many data centers that we don't have a handle around, and we need to more aggressively—again, part of this is we're—on the data centers we're doing some things around DCIM, which gives us some better measurements of actually how we're using those existing data centers.

I think that will drive some business requirements and some business cases to close some and help us actually use them better. But the better answer to that is move to the cloud. Again, for things that are a simple commodity, the answer is we've got to get to the cloud and we've got to do it faster.

I can't disagree either on—you know, look, some of my nontechnical colleagues at the Department have asked me, why don't we have a software asset inventory. And they're right. It shouldn't be that hard.

Now, I will say that we did a data call. We have, I think, over 64,000 lines within the database we collected of that. We have a

significant inventory. It's not complete, and we're not going to represent it as complete until it is. The vast majority of that that came back was, in fact, provided electronically, so that exists in pockets in parts of our department.

We have a number of gaps in the Department, areas that don't have that capability. So one of the things we're doing is leveraging. We're going back and looking at CDM. We have gaps in our CDM deployment, and we're actually going back and trying to line that up and find out, all right, where do we have gaps within programs and offices that need help at the enterprise level from my office to come back and fill the gaps so that we can have a complete software asset inventory.

And, again, I just want to add, the software asset inventory is valuable not just to have it; it drives—you know, as I work with our acquisition team and work in conjunction with them, it's going to save us money. We know that for a fact.

It's going to help us reduce our threat surface because it's going to tell us what kind of software we have or don't have. And then it's going to help us drive our IT transformation as we can see the gaps in capability or, frankly, where we have overlap in capability where we probably have people buying two or three different of the same capability in different software packages. That just needs to be eliminated.

So there's no painting it any other way. Again, I understand many people are failing at it, but I don't—it's not rocket science. It's not hard. And we are pushing rapidly through those means to get it fixed.

Ms. KELLY. And do you have any, not saying everything all at once, but any time projections or what do you see?

Mr. EVERETT. So with respect to—certainly with the software inventory piece, we're in the process right now, we've brought somebody into actually to help us be strategic about CDM. And, again, our focus there is what are the gaps.

We have a lot of people that have really great capabilities that meet many of the CDM requirements and needs. What we're looking for is where are the gaps. And then as an enterprise, as a department, how do we come in and help them fill those gaps.

And, again, because we have a number—we have a very federated, diverse department, we have a lot of good best practices. We've got a lot of labs and other folks who have great tools in place. We're working with them to get actually what's working for them and try and replicate that or build it across the Department.

I'll say on, again, on data centers, one of the immediate things we're working on is we've had some folks working on this DCM pilot. And, again, our labs have actually led the way. A number of our labs have put DCM tools in place and have worked with my team to share best practices that we can do across the Department. So our next step there is a pilot that we expand across the Department. That's going to give us a more accurate picture. And I think what it's going to show is that we have a lot of data centers. We just don't need anymore.

Ms. KELLY. Thank you.

Mr. HURD. My first question's actually for Mr. Powner, but you're going to have to look for something. Towards the end of your state-

ment, you talked about budget and system acquisition. I want you to pull that up. And while you're looking for that, I'm going to go to Mr. Everett.

Mr. Everett, take about 30 seconds and tell me how your position changed from to reporting to directly to the agency head or the deputy agency head.

Mr. EVERETT. Sure. Well, I—as I walked to the Department in July, you know, obviously I'd done a little research before I walked in. I knew that was the case. I've been around Federal Government and private sector the last number of years, so I was very aware that this is a challenge across government. And I knew walking in the door that that was something I was going to immediately have changed.

The good news for me was I have a Secretary and a deputy secretary, both of whom have seen in public and private sector that that was valuable and important. They understood, without really any argument from me, that that was simply a best practice. And so, literally, it probably would have even happened faster. It just took a while to get the memo written and get it passed up to the front office.

But for our office, I'll simply tell you that our leadership understood that it wasn't even really a question. It was an expectation that IT would be part of the leadership and part of this process.

Mr. HURD. I would like to attribute that to Secretary Perry's training at the illustrious Texas A&M University for giving him that understanding.

And without objection, I'd like to introduce into the record a memo from Max Everett to the Secretary of Department of Energy about the designation of the CIO as a direct report to the Secretary, deputy secretary.

So ordered.

Mr. HURD. For those that are going to read about this on FedScoop, and CIOs that are not reporting directly to an agency head or deputy agency head, they should see this memo. And unfortunately, there is still 12 departments or agencies where the Federal CIO doesn't report directly.

I just want to clarify a point, Mr. Everett, because I think you addressed it fairly well. Can you answer that you know 100 percent of what's on your network?

Mr. EVERETT. Right now, I would have to tell you the answer is no. I think the vast majority of people who tell you that, I'm not sure that they're being accurate.

Mr. HURD. Gotcha. Because my assumption is, if you have a number of agencies that don't understand what software they have on their system, they also don't know what hardware they have on their system. And that introduction of unknown vulnerabilities is scary.

Mr. Powner, did you find the quote I was looking for?

Mr. POWNER. Yes, I did.

Mr. HURD. Can you repeat that statement, please?

Mr. POWNER. "Finally, I'd like to note that our work for this committee on IT budgeting and CIO authority shows that Energy CIO is challenged in the areas of IT budgeting in execution, meaning

that there needs to be better visibility into the IT budget and better governance over their system acquisitions."

Mr. HURD. Ms. Doone, you're the CFO, correct, acting CFO?

Ms. DOONE. Yes.

Mr. HURD. What are you going to do to help Mr. Everett with that problem?

Ms. DOONE. We have been working—the CFO office has been working with CIO since the enactment of FITARA to do just that, to improve the alignment of the IT portfolio with the budgeting process.

Even before the OMB guidance was issued back in 2015 for the fiscal year 2017 budget cycle, we issued guidance out to all the program offices to have them identifying their IT spend by program activity and by project. CIO did the likewise, so that their IT portfolio would start delineating the IT across the entire department.

Mr. HURD. Ms. Doone, do you have responsibility—financial responsibilities over the National Laboratories as well?

Ms. DOONE. The National Laboratories financial responsibility is managed by the program offices. So they report and they submit their budget request up through the program offices, who put their budgets included in their program office budgets that come to CFO.

Mr. HURD. So as the CFO of Department of Energy, you have the similar challenges that your colleague, Mr. Everett, has with these siloed activities by the National Labs, that even though you're responsible for all the Department of Energy, that you may not have the greatest insight into that. Is that an accurate statement?

Ms. DOONE. It is an accurate statement, but I would suggest that it's getting better. With the expansion of the IT portfolio over the last couple of years, we and CIO have expanded the number of data elements that the program offices are providing us. So we are now able to reconcile the IT portfolio with the budget submission that we are getting from the program offices.

And I think one of the biggest benefits that we've had—we started working directly with CIO from the very beginning of the enactment of FITARA. I think the biggest accomplishment has been the budget and financial management staff in the program offices and their IT counterparts working closely together for the first time. And I think that's where we're going to begin to see more visibility and better transparency, and it's been both at the Federal program office level and at the National Laboratory level.

Mr. HURD. Thank you.

The gentleman from the Commonwealth of Virginia is now recognized for his 5 minutes of questions.

Mr. CONNOLLY. I thank the chair, and welcome to the panel.

By the way, I would say to my friend from Montana, as someone who also spent 20 years in the private sector before coming here, in the technology sector, one might look for metrics. If you want to know how you're doing in cloud, look at the data on data center consolidation, because you're not moving to the cloud if that's not being consolidated. If you're consolidating it, you are moving to the cloud, because you have to.

Now, Mr. Everett, let me just say, I believe you get it and I believe you are an agent of change. And I think the memo the chairman cited gives evidence of that. So don't take this hostilely, but

your words are welcome, but you got an F in data center consolidation. Your score went down, not up, which suggests regression.

And it is the Department of Energy, the National Labs, that kind of in the dead of night went to the U.S. Senate and got an exemption for themselves. The ink wasn't even dry in FITARA. Last time I checked, that's under your purview, which would suggest resistance to change, to trying to get this right.

So why should we believe, you notwithstanding, all of you being sincere human beings, why should we not believe that, frankly, the Department of Energy is retrograde, they're not with the program, they're not cooperating, they're treading water in the hopes we'll give up and stop looking, and progress, you know, is just not in the forecast?

Mr. EVERETT. Well, we have to make that change.

Mr. CONNOLLY. I can't hear you.

Mr. EVERETT. Apologies. Ranking Member, I think the answer is we have to make that change. I hope that you don't give up.

Mr. CONNOLLY. Oh, we won't give up.

Mr. EVERETT. I know you won't, but, you know, even beyond my tenure, I hope that you don't give up. One of the reasons that Ms. Helland is up here is, I can tell you, in my 4½ months at the Department, her work in the Office of Science has been a huge help and a huge part of correcting some of those issues.

I can tell you that our approach, and this starts directly with my Secretary and deputy secretary, and I have been in their presence when they told this directly to the lab directors was that there is one department. That is their expectation. That is the expectation they have given to me. That is the expectation I repeat on a regular basis.

And so I believe that's—you know, history aside, I believe that's a starting point. I'm glad that Ms. Helland joined us, because, again, she has been an ally to me. I think she can talk about some of the work she's actually been doing to help us build some of the reporting mechanisms around CPIC, around FITARA, around how we hold the labs to a level of accountability that we expect for everyone in the Federal Government.

Mr. CONNOLLY. And I want to hear that from Ms. Helland, but—just one more—but you got an F in data center consolidation, which is the heart and sole of FITARA. It's how we save money. It's how we reinvest in ourselves. It's how—it's an actual metric whereby we measure are we making progress or not. Tell me why you got an F.

Mr. EVERETT. Because we haven't done the job. I mean, there is no way around it.

Mr. CONNOLLY. All right. Have you set metrics for yourself internally?

Mr. EVERETT. We have.

Mr. CONNOLLY. Okay. How many data centers are there in the Department of Energy?

Mr. EVERETT. I'll pull it up here, but there are——

Mr. CONNOLLY. All right. Take you time while we listen to Ms. Helland.

Mr. EVERETT. 289.

Mr. CONNOLLY. 289, okay. He's telling the truth, right? No. So 289. Have you set a goal for yourself that by, you know, a year from now or the next report card there will be 289 minus X?

Mr. EVERETT. The existing goal is 11, is to reduce it by 11.

Mr. CONNOLLY. By 11?

Mr. EVERETT. By 11.

Mr. CONNOLLY. Well, that's a pretty modest goal.

Mr. EVERETT. I think that's exceedingly modest.

Mr. CONNOLLY. So can we be a little more robust in our goal setting?

Mr. EVERETT. We will be more robust. We are pulling together and working hard. I want to be thoughtful. I don't want to give a number I can't back up.

Mr. CONNOLLY. I understand.

Mr. EVERETT. But at the same time, no, the answer is 11 is a pittance.

Mr. CONNOLLY. But so I would just say, also again to my friend from Montana, and I think he would agree, I have experience both in the public sector and the private sector. If you don't set heroic goals, stretch goals, nothing happens. Now, not impossible goals, because then nothing happens either, but stretch goals. And so 11 is hardly a stretch goal. And I hope when you come back here, you're able to say, well, we said 11 and it's 110. We got it off by a zero.

My time is going to run out, but, Ms. Helland, I want to give you an opportunity to comment on the National Labs.

Ms. HELLAND. Thank you. We actually started in 2015, July of 2015, working with the Office of Science labs. And at that time, we also had three Energy labs that we were working with to look at our lab planning and appraisal process, which is a way that we actually included CIOs in that process so that we could see—we asked them to report on their current IT spending and their current research computing, so that this instrument became effective for the other program office—or other program offices in the Office of Science.

Mr. CONNOLLY. Well, I just want to say in closing that I echo what the chairman and Ms. Kelly said. What makes me feel better about your score is you, because I think you are committed to making this happen, and the reporting sequence is now right. And when you're in that kind of position, you can make things happen, and it's pretty clear you're committed to doing that. And so we'll back you up. We'll help you. We're not going away.

And I applaud my colleague, Mr. Hurd, on the Republican side of the aisle, for absolutely—and Mr. Meadows is near, but the four of us, you know, are just not going to give up. And we're here to try to both nudge and support and use it to your advantage. Thank you so much.

Thank you, Mr. Chairman.

Mr. HURD. Now it's my pleasure to recognize the distinguished gentlewoman from the District of Columbia, Ms. Eleanor Holmes Norton, for her 5 minutes of questioning.

Ms. NORTON. I thank my friend for yielding, and I thank him for this hearing, and our witnesses for their informative testimony.

This is a hearing about the Federal Information Technology Reform Act, the act itself. I'm trying not to use letters and acronyms. And it's essentially about IT and the progress we are making at a time when that can determine, in private industry, go or stop. I regard it as just as important for the Federal Government.

I was intrigued by the work of the chief information officers that GAO looked at how enhanced authority was assisting the chief information officers in certifying major IT investments. And here's where I need clarification. They said, and I'm quoting here, "adequately implementing incremental development." I got intrigued, what in the world is that, and had staff look it up, and discovered that adequately implementing incremental development is for the investment to deliver functionality every 6 months.

So in order for me to understand what that meant, I took as an example, since you were testifying here today, Department of Energy, because it was among the agencies that achieved an A score on this particular—in this particular category.

What was responsible—you make me understand incremental development. If you apply it to the Department of Energy, and make me understand how the Department of Energy earned an A rating for incremental development.

Mr. EVERETT. So I'd love to take all the credit for that, but that I think has been a historical strength of the Department. And, again, some of our career folks have been a key component of keeping that going.

The focus of that is around—I don't think it's a secret to many of us who have been around D.C. that, historically, when departments engage in long, multiyear projects, those tend to have significant problems in financial management and delivery.

So the—I think it's a very good thing to be measuring that, because the importance of that is, when you're actually delivering capability—you know, this is—you know, in the private industry, it would typically cause sort of agile development. You're constantly adding showing capability. You're demonstrating that you're actually producing something.

The flip side of that would be if we did some large, multiyear development and said, we'll start here, 2 years later, we'll see what happens, historically that has been a very poor management technique in IT and certainly in the Federal Government.

What I've observed so far at the Department of Energy is I think we're deserving of that grade, because I think there's a lot of focus on, again, that incremental movement to make sure we're delivering something in sort of bite-sized manageable chunks.

Ms. NORTON. That really does make me understand it. It certainly makes me understand why this every 6 months. And for IT, clearly every 6 months is important.

But since you already are looking every 6 months, what will you suggest for those who don't have—I mean, you're looking at them every 6 months too. So what do they need to do so that every 6 months—do we need a shorter timeframe for people who don't have A scores, for example?

Mr. EVERETT. Yeah. I mean, I think you—you've got to start—you know, you may start to drive the metric a little shorter. You may not necessarily have delivery. But finding ways to measure

that—again, the goal of it is just practically to be intermittently actually watching and seeing what's——

Ms. NORTON. Well, does it, in fact, result in increases in the score?

Mr. EVERETT. Oh, yeah, it does. I mean, it certainly has for us.

Ms. NORTON. By looking every 6 months, even with those who haven't received this A rating, then their ratings tend to go up because you're looking every 6 months.

Mr. EVERETT. Yeah. I think you've constantly got to watch that and measure it and make sure that they really are showing actual measurable deliverables and improvements.

Ms. NORTON. Mr. Powner, did you have anything to add to that?

Mr. POWNER. No. I think it's clearly a best practice to go with shorter deliveries instead of longer deliveries. I do think—you know, when we measure this, we know where all the warts are looking under the covers here. So the one thing is this is how they plan. If you look closely at whether they deliver against the plan, it might be a little less so we shouldn't get too comfortable.

The other thing that I would like to say is, as we understand more what we actually spend on IT, there's probably more software development projects that should get listed under this category, and it might not look so rosy.

So I don't want to rain on the parade, but I do think it's important to make sure we understand that there's still work for some of the those agencies that have As. Go small and it's much better.

Ms. NORTON. Appreciate that criticism.

And thank you, Mr. Chairman.

Mr. HURD. Thank you.

A couple of quick questions for you, Ms. Doone, and you, Ms. Helland.

Ms. Doone, what are you going to do to help Mr. Everett populate the Working Capital Fund that we are going to create with a successful implementation of the MGT Act?

Ms. DOONE. Well, once the MGT is enacted, we'll have to take a look at the structure of the Working Capital Fund.

DOE has an existing Working Capital Fund, and there are several line items in our current Working Capital Fund that are managed by CIO. The most significant one is a cybersecurity investment of about $35 million, which is intended for enterprise-wide cybersecurity. So we already leverage our existing Working Capital Fund to support his efforts in a number of areas, including network support as well.

Mr. HURD. So the Working Capital Funds created by MGT is something that only the CIO can touch, and it's to put money that is saved from doing things like transitioning into the cloud, getting your software licensing under control, because the savings that they're going to realize, they're not going to be able to use in that calendar year.

How do we make sure that that's captured so that by the end of next fiscal year, that money is transferring to that account?

Ms. DOONE. Yeah. That would be something that we would have to look at. And, yes, if this were a mechanism totally dedicated to capturing the savings from the variety of IT savings, then that would be something that we could do and perhaps look at that and

see if that could then support it. Because that would be a mechanism that would target that money, those savings directly recouping them and allowing CIO to invest into much-needed enterprise IT modernization.

Mr. HURD. Do you think we can do that within a calendar year, 12 months? There's only one answer to that, by the way.

Ms. DOONE. It's certainly a very straightforward request to recapture savings. The challenge is identifying those savings and getting them captured and moving them over to——

Mr. HURD. As long as you're in this position, are you committed to helping Mr. Everett do that?

Ms. DOONE. Oh, absolutely.

Mr. HURD. Mr. Bashista, are you involved too?

Mr. BASHISTA. Yes, sir. A number of initiatives that we're supporting the CIO, as we discussed, the CFO and CIO in procurement and contracting, we face a lot of the same challenges being decentralized. So on a programmatic basis——

Mr. HURD. I get it. But are you going to help Mr. Everett make sure we capture that savings when he improves the software licensing, introduces CDM, and figures out their technology doesn't have, and he saves money, are you going to help us make sure and work with Ms. Doone in getting that in an MGT Working Capital Fund?

Mr. BASHISTA. Absolutely.

Mr. HURD. Awesome.

Ms. Helland, the National Laboratory CIO's council, who does that report to?

Ms. HELLAND. It actually reports to—I mean, it was formed by the National Lab—the CIOs at the National Labs for them to identify common practices and best practices across the labs so that they could work together. Technically, I'm not sure it reports to anybody, but we certainly—both Max and I sit on the executive board.

Mr. HURD. Mr. Everett, do you have a response to that?

Mr. EVERETT. So the NL CIO council reports to the—I believe it's to the National Lab director's executive council.

Mr. HURD. Do you have insight into the types of things the CIOs at the National Labs are putting on their network?

Mr. EVERETT. We do. And we're—so we don't have full—again, and I tell you, in all honesty, I don't have that fully on our current network. We are in the process. And, again, at the direction of our deputy secretary, within 2 weeks of his joining, we put forward a memo under his name that I am responsible for as part of our iJC3, which is for our enterprise SOC, that all elements of the Department, including all laboratories, sites, Federal program offices, everybody is going to be responsible. And we're working right now to deliver certain data that I have put together a taxonomy on that will come up for us in a consolidated manner so that we have—and, again, that's an initial visibility across every network in the Department.

The move from that will be to then incorporate the CDM capabilities, to your point, so that we can see hardware, software, all the other pieces, so that we can have that visibility of our cybersecurity posture across the entire Department, labs included.

Mr. HURD. Great. And, Mr. Powner, I'm looking forward to GAO reviewing and ensuring that is moving in that direction.

I want to thank our witnesses for appearing before us.

Mr. CONNOLLY. Mr. Chairman?

Mr. HURD. Yes, sir.

Mr. CONNOLLY. Just a footnote to——

Mr. HURD. I yield to my gentleman—my friend from the Commonwealth.

Mr. CONNOLLY. I thank my friend.

Just I was listening to your questioning of Ms. Doone, if you're looking for more savings, maybe you might expand that goal of 11 data centers being consolidated. I was just doing a little quick math on the back of my envelope, and with that—if that's our annual goal, it's going to take 27 years to address the total number of data centers you've got at the Department of Energy.

So, I mean, I do think there's some real room for expansion there that would have big payoff, and the MGT legislation rewards it. And, oh, by the way, working with Mr. Powner and my colleagues, the FITARA extension bill that extends the sunsets, including a data center consolidation, is, as we speak, on its way to the President for his signature.

So there will be several more years of scrutiny over data center consolidation. So use that time and effectuate those savings, especially in anticipation of the authority you're going to get, especially through the leadership of my friend Mr. Hurd, in the MGT legislation.

Thank you, Mr. Chairman.

Mr. HURD. Thank you.

I'd like to thank our witnesses for appearing before us today. The subcommittees will now have a very, very brief recess, 2 minutes, to set up for our second panel.

The subcommittee stands in recess, subject to the call of the chair.

[Recess.]

Mr. HURD. The subcommittees will come to order.

I'm pleased to introduce our second panel. Again, the illustrious Dave Powner; Mr. Jay Mahanand, the CIO for the U.S. Agency for International Development; Mr. Reginald Mitchell, CFO for USAID; and Mr. Wade Warren, acting deputy administration at USAID. Welcome to you all.

And pursuant to committee rules, all witnesses will be sworn in before they testify, so please rise and raise your right hand.

Do you solemnly swear or affirm the testimony you're about to give is the truth, the whole truth, and nothing but the truth, so help you God?

Thank you.

Let the record reflect all witnesses answered in the affirmative.

Again, in order to allow time for discussion, please limit your testimony to 5 minutes. The entire written statement will be made part of the record.

Again, as a reminder, the clock in front of you, when it turns yellow, you have 30 seconds; when it turns red, your time is up. And please turn on and off your microphone.

I now recognize Mr. Powner for an abbreviated statement.

PANEL II:

STATEMENT OF DAVE POWNER

Mr. POWNER. Thank you, Mr. Chairman.

USAID plans to spend about $40 million on IT this year. Eighty-two percent of this is used for operational systems, leaving just over $25 million for new development. One of the largest investments is its financial management system that is used to manage and report on foreign assistance funds. Last year, over $13 million was spent on the system, and over the years, over $225 million has been spent on this critical system.

USAID's overall grade jumped from three straight Ds with your first three scorecards to an A the last two. They are the only agency to receive an A on the FITARA scorecard.

There are lots of positives here. Their CIO tenure is better than most. They have had only two CIOs since 2009. They have As in four of the five areas. They report the second highest portfolio stat savings as a percentage of their overall spend. Management of their software licenses has been centralized since 2004, resulting in an A in this area.

The one area where we did not see an A is on data center optimization. USAID still needs to meet the server utilization metrics for its 80-plus nontiered or smaller data centers.

Finally, I'd like to note that our work for this committee on CIO authorities shows that there is still some work to do on IT budgeting and execution, especially on improving governance over its IT acquisitions.

Mr. Chairman, this concludes my comments on USAID.

Mr. HURD. Thank you, sir.

Again, only one person is going to provide remarks for USAID. Who is that going to be?

Mr. Warren, you're now recognized for 5 minutes.

STATEMENT OF WADE WARREN

Mr. WARREN. Thank you.

Thank you, Chairman Hurd and Ranking Member Kelly and members of the subcommittee, for inviting me here to testify today regarding USAID's progress on FITARA. We're grateful for your support on this effort.

I brought with me today my colleagues, Regi Mitchell, who is USAID's chief financial officer; and Jay Mahanand, who is our chief information officer. They have both been very instrumental in our technology reform efforts, and I'm happy to have them with me here today and to help answer questions.

As you know, USAID is a global agency. Our work is often done under the most difficult circumstances, from a tent in Mexico City after the recent earthquake, to a small mission in East Timor where the internet connection is less than reliable, to a refugee camp in Jordan.

Strong and effective information technology systems are essential to USAID achieving its mission in a modern world. And so USAID is proud to have received the first A rating ever given under the FITARA scorecard. But it hasn't always been this way at USAID.

Eight years ago, USAID's IT was in disarray. In Washington, we spent hundreds of thousands of dollars every year acquiring new equipment and on powering and cooling our data center. What we got for it were regular outages and a system that left employees tethered to their desks.

In the field, the situation was even worse. USAID often operates in countries with low bandwidth, and our old email system did not function well in this environment, leaving many staff waiting for long periods of time for email messages to load, if they were able to access email at all.

Seven years ago, in February 2010, we realized that the status quo was not sustainable, and we began taking steps that ultimately gave USAID a cloud-based email system. And over the last few years, the Agency has developed into the leading Federal agency for cloud computing.

So today, I would like to share with you what we view as the four keys to our success. First, we accepted that updating our IT system would be risky, that we would run into problems, and that we would not get everything right the first time. We knew that we needed to improve, and we were willing to take those risks. We embraced change.

Second, we had real buy-in from agency leadership. We realized that for USAID to remain the world's premier international development agency, modernizing our technology had to be a top priority. We committed significant financial and human resources to this effort and championed it from the top down.

Third, we continue to improve, plan for what we know will come, and deliver results. Today, we have embraced a culture of incremental progress. And we regularly make small investments in our information systems that keep them from going out of date or losing interoperability. And I'm proud to say that because of these investments, USAID is not operating a single legacy system.

And fourth, we committed to hiring experts at a senior level who have the technical know-how to implement these changes and keep us ahead of the curve. We worked hard to recruit knowledgeable, experienced staff, and provide training and support for the staff we have.

All of this hard work has led to important increases in efficiency for our workforce and significant cost savings that today we are using to reinvest in our platforms.

Mr. WARREN. Moving forward, we will ensure that we continue to remain ahead of the curve and lead the U.S. Government in our embrace and effective use of modern information technology.

To further optimize data center operations, the agency is in the process of migrating our already outsourced data center to a cloud environment, and USAID is taking steps to actively manage the cybersecurity risks that we all are aware of today.

So in conclusion, we are committed to maintaining our status as a Federal leader in IT space. We look forward to collaborating with you to address future challenges and new opportunities for reform.

Thank you for your time, and thank you for your support of our efforts.

[Prepared statement of Mr. Warren follows:]

Testimony of Wade Warren
Acting Deputy Administrator
United States Agency for International Development (USAID)
Before the House Oversight and Government Reform Committee
Subcommittee on Information Technology
Subcommittee on Government Operations
Wednesday, November 15, 2017, 2:00 PM

Introduction

Chairman Hurd, Chairman Meadows, Ranking Member Kelly, Ranking Member Connolly, members of both the Subcommittees on Information Technology and Government Operations, thank you for inviting me to testify today. I am grateful for the Committee's support for the work of the United States Agency for International Development (USAID) in information technology reform, and I am pleased to have this opportunity to discuss our progress in complying with the standards set out in the Federal Information Technology Acquisition Reform Act (FITARA). I have brought with me today Reggie Mitchell, USAID's Chief Financial Officer, and Jay Mahanand, USAID's Chief Information Officer, who have been instrumental in our technology reform efforts to help answer questions.

USAID is a global agency, charged with ending extreme poverty, and promoting resilient democratic societies while advancing U.S. security and prosperity. We employ more than 12,000 people and work in more than 100 countries. Our work is often done under the most difficult circumstances -- from a tent in Mexico City following the recent earthquake, to a small Mission in East Timor with a less-than-reliable internet connection, to a refugee camp in Jordan. We are an organization that depends on agile and mobile information technology.

We are also extremely data driven. For example, our Chief Geographer and GeoCenter use satellite data, demographic information, geo-statistics, and digital mapping to inform our decisions about where to target resources to maximize our development impact. Our Economic Analysis and Data Service provides a central source for all federally funded foreign assistance and international socioeconomic data.

Strong and effective information technology systems are essential to USAID achieving its mission in a modern world. As a relatively small agency with a relatively small IT budget managing a worldwide network, USAID has no choice but to embrace efficient IT. USAID is proud to have received the first A rating

ever given under the FITARA Scorecard; our score reflects years of hard work to put in place key reforms to address the deficiencies of prior years.

Modernizing Our IT Systems

Eight years ago, USAID's IT was in disarray. We operated our own data center in the basement of the Ronald Reagan Building, and each Mission overseas maintained its own servers. In Washington, we spent hundreds of thousands of dollars every year acquiring new equipment, powering, and cooling our data center -- what we got was regular outages and a system that left employees tethered to their desks. We lacked WiFi, laptops, and efficient remote access to email, and we collaborated by emailing documents from person to person.

In the field, the situation was even worse. USAID often operates in countries with low bandwidth. Our old email system did not function well in this environment, leaving many overseas staff waiting for long periods of time for email messages to load, if they were able to use their email at all. These operating constraints caused us to reconsider what we needed from an IT system. Not surprisingly, access to email for staff positioned in high-priority critical areas topped the list.

In February 2010, we realized that the status quo was not sustainable. Our need for greater email reliability abroad, for increased data storage, and for greater mobility, compelled us to look for a new, modern email system. Spurred by calls from the Office of Management and Budget and the White House to modernize our technology and move to a cloud-based platform, we began taking steps that ultimately gave USAID a cloud-based email system by 2012.

Over the last few years, the Agency has developed into the leading federal agency for cloud computing investments with at least 20 percent of its operational IT spending dedicated to cloud solutions.

Keys to Success

These investments in technology modernization have made us one of the most technologically efficient and effective agencies in the Federal Government. So today, I would like to share what we view as the keys to our success.

First, we accepted that updating our IT would be risky, that we would run into problems, and that we would not get everything right the first time. We knew that we needed to improve, and we were willing to take those risks. We embraced

change. We brought people along and encouraged them to try new things, like the cloud. By being open about the changes underway, we smoothed the way for adoption. We strived for constant and clear communication about what was happening and why it was happening. And we were there to answer questions as they came in.

I was hesitant when we first moved to the cloud. I led USAID's planning ahead of the transition, and my staff suggested we use a cloud-based word processor. At first I was resistant, but I was brought along and soon saw the value of editing quick-turnaround documents in real time -- from the office or from home, during regular work hours or late into the evening, as the situation dictated.

Following the transition, we were able to push out the entire library of transition documents to the whole Agency in one afternoon -- something we could never have done through email. And today those documents remain online for reference by anyone at USAID.

A second key to success, and related to the first point, we had real buy-in from the Agency leadership. We supported and funded modernization efforts, recognizing that in order for USAID to achieve its mission we needed to provide world-class technical support to employees. We realized that for USAID to remain the world's premier international development agency, modernizing our technology had to be a top priority. We committed significant financial and human resources to this effort and championed it from the top, with leadership committing to being among the first adopters.

Third, we continue to improve, plan for what we know will come, and deliver results. Today, rather than holding off on technology adoption until we need to make a significant leap forward, we have embraced a culture of incremental progress. We constantly phase in new technology and make small updates to our platforms. We regularly make small investments in our information systems that keep them from going out of date or losing interoperability. I am proud to say that because of these investments, today, USAID is not operating a single legacy system.

Fourth, we committed to hiring experts at a senior level who have the technical know-how to implement these changes and keep us ahead of the curve. We worked hard to recruit knowledgeable, experienced staff and provide training and support for the staff we have. The skills and abilities of our IT workforce remain

one of the key determining factors of whether we are successful in providing the information services we need as an organization.

Looking Ahead

All of this hard work has led to important increases in efficiency for our workforce and significant cost savings that today we are using to reinvest into our platforms. Moving forward, we will ensure that we continue to remain ahead of the curve and lead the U.S. Government in our embrace and effective use of modern information technology.

To further optimize data center operations, the Agency is in the process of migrating our already outsourced data center to a cloud environment, which will provide a much more dynamic and flexible model for infrastructure procurement and management. This new arrangement will allow us to acquire and pay for only those services that are required, giving us the ability to easily and quickly scale up or down as needed.

USAID is working to develop a comprehensive Agency-wide software license inventory to ensure the best use of the Agency budget. This helps ensure that USAID is tracking spending and enterprise licenses to help maintain the appropriate number of licences for our Agency. We have also used this inventory to respond to the reporting requirements contained in the Making Electronic Government Accountable By Yielding Tangible Efficiencies (MEGABYTE) Act of 2016.

Finally, USAID is taking steps to actively manage the cybersecurity risk that we are all aware exists today. USAID's Office of the Chief Information Officer detects and mitigates more than 200,000 malware and intrusion events per month. We have made cybersecurity a critical priority and have worked closely with the Office of Management and Budget, the Department of Homeland Security, the Federal Chief Information Officers Council, and other federal organizations to protect our networks, systems, and information from unauthorized access or disruption while continually providing essential services and protecting privacy. In response to the May 2017 Cybersecurity Executive Order, USAID was ranked by the Department of Homeland Security and Office of Management and Budget, as "Managing Risk," meaning the Agency is able to actively manage the cybersecurity risk to the enterprise, making us one of the few federal agencies to receive this rating.

Conclusion

USAID is committed to maintaining our status as a federal leader in the IT space. I would like to thank Members of Congress, and members of these Subcommittees in particular, for your continued leadership, interest in, and support for our work. We look forward to collaborating with you to address future challenges and new opportunities for reform. Thank you for your time; we welcome your questions.

Mr. HURD. Well, Mr. Warren, thank you for not taking all of your time, number one. And I also want to say thank you for what your organization does. I had the honor of serving alongside many of the men and women in USAID, and I know the work that you do and saw it up close and personal. And, Mr. Mitchell and Mr. Mahanand, you facilitate that activity. So what you do is very important, not only for our country, but for the countries that we are working in. So I am a supporter of your organization.

That being said, Mr. Warren, my first question is why does Mr. Mahanand not report directly to you or Ambassador Green?

Mr. WARREN. Thank you. We have—in our agency, we have an assistant administrator for management, and she has responsibility for the CFO function, the CIO function, the facilities management, and the budget of the operational budget for the agency. She reports to me. But the CIO and the CFO both have a dotted line to the administrator. They are free to go to him directly when they have issues that are of concern to them. And that's the way we've been managing ourselves over the—over the last number of years.

You may be aware, however, that we are in a redesigned effort with the State Department now to look at how the State Department and USAID work together and how we can change our procedures internally to make them more effective and looking at the reporting relationships of the CIO and the CFO was part of what we are looking at now.

Mr. HURD. Mr. Powner, do you have any opinion?

Mr. POWNER. I think clearly it's much better if you report up to the box. Right? And I think as long as there's access. We've seen sometimes where there's this management guru in between, and we've heard this. The key question is whether that access is consistent and enough to the top when you need to get the right decisions and the right support.

Mr. HURD. Mr. Mahanand, I'm going to assume that since there's only been two CIOs—since when Mr. Powner?

Mr. POWNER. Since 2009.

Mr. HURD. —since 2009, I'm assuming you have a positive opinion of your access to senior leaders within your organization.

Mr. MAHANAND. Yes, I do. I mean, I've—any time there's a need to escalate, I will do that. But in the current structure, there is no need. The—as far as the system administrator for management, I mean, my daily op—my daily interaction is with her. And so I've not—don't have the need to actually go to her—or go to the administrator. Most of my activities go through her.

Mr. HURD. Can you answer with 100 percent certainty that you know everything's on your network?

Mr. MAHANAND. Maybe 99.9 percent. On our network, we do have—we do have monitoring software. I'm talking about the physical network here. So we do have port security. We have—anything that actually touches the network, we are notified of that.

What we're not—what I'm not really sure about is really the services that's purchased outside and not necessarily connected in the network. That is something that we actually track in terms of looking into software, but there's—you know, there's a potential in shadow IT within the agency, and that is the only thing that I'm not positive about.

Mr. HURD. How do you do CDM?

Mr. MAHANAND. CDM, right now, we're in phase I, and it's scheduled to be deployed February of 2018.

Mr. HURD. Deployed in 2018. So complete within 4 months?

Mr. MAHANAND. Yes. I mean, we actually started about 2 years ago. We've piloted CDM, and so the final deployment is in February of 2018.

Mr. HURD. So the pilot deployment, do you have the enforcement mode engaged?

Mr. MAHANAND. I believe so.

Mr. HURD. Can you get me an answer?

Mr. MAHANAND. Yes, I can.

Mr. HURD. Thank you.

Mr. Mitchell, how are you going to help Mr. Mahanand create a Working Capital Fund once MGT is complete, so when he is able to get a complete insight into his network and saves money, he has access to that Working Capital Fund?

Mr. MITCHELL. We would—I will be able to support our chief information officer by setting up this fund and working with them to develop the procedures and policies governing the operations of this particular fund.

I think it's important to note that the budget per se does not fall under my purview, but I do have budget execution. And I do work with Mr. Mahanand and his staff as far as providing them with real-time data, executional data, so that he can better have decision-making capabilities.

Mr. HURD. So if their budget doesn't fall under CFO, who does the budget fall under?

Mr. MITCHELL. The operation budget, including the capital investment fund, falls under the office of management policy, budget, and planning office, and that office is located in the Management Bureau.

Mr. HURD. And, Mr. Warren, that is this person you described——

Mr. WARREN. Yes. This assistant administrator for management has responsibility for the CFO, the CIO, and the operational budget.

Mr. HURD. So, Mr. Warren, in my remaining 15 seconds, what are you going to do to help to make sure Mr. Mahanand has the MGT Working Capital Fund so he can use that at the end of next fiscal year?

Mr. WARREN. Well, as I stated, the senior leaders of the Agency, both the career and the political staff, are very supportive of the IT function. We recognize that we can't do our work around the world without it. And we—I—Jay and Reggie and I work closely to ensure that our IT needs are met, so I'd be very supportive.

Mr. HURD. Ms. Kelly, you're recognized for 5 minutes.

Ms. KELLY. Thank you.

The IT Dashboard is a public website that allows Federal agencies, industry, and the general public to see the details about Federal information technology investments and their risks. Those risks are submitted by the CIO for those agencies.

Mr. Powner, can you briefly explain why the IT Dashboard exists and what factors affect scoring?

Mr. POWNER. So the IT Dashboard is there to make sure we have visibility into the major investments. We look at the roughly $100 billion that we spend, so that's roughly half of what was on these major larger investments. So we know what they are, and we also have some costs and schedule performance. But a key part of that is the CIO rating.

So, for instance, USAID has 87 major investments. Interestingly, they get an A in this area because they don't have a single green on the Dashboard, everything's red or yellow, where they acknowledge risk. You could do that different ways. We like to see the acknowledgement of risk because these things are typically difficult and you want to admit the risk so that they can be effectively managed.

Ms. KELLY. And you talked about USAID, but the other agencies in general, are they doing a good job, accurately reporting, not doing a good job? And what are the implications for not accurately reporting?

Mr. POWNER. I think over time, especially with your scorecard, we see more risk acknowledged on that dashboard, so that's been a good thing. There's some agencies that had a complete flip. They were all green, and then all of a sudden, they're, you know, heavy on the reds and yellows, which that's a more accurate reporting.

So we've seen improvements in these areas. There's still some concern.

Yeah. The other area of concern is sometimes some large investments are categorized as nonmajors, and that's one way to hide visibility on the Dashboard. And again, we know who those agencies are, and we're kind of watching some of those larger nonmajors.

Ms. KELLY. Okay. Thank you.

Mr. Mahanand, in the category of transparency, USAID received transparency in risk management an A. Can you briefly explain how USAID goes about determining the levels of risk facing its major IT projects?

Mr. MAHANAND. Sorry. For us, we have five major business cases. Three of them is in operations. And so—but they provide critical function for the Agency. And so what we look—we take a look at—we start previously taking a look at the mid rating here, as far as the risk is concerned. So, you know, we look at the projects that's being executed. We looked at the overall importance of the specific program, and we make a determination of what is happening to—specifically in activities in those areas.

And so when the—quarterly when the report comes to me, I take a look at it. We review it with the program staff. I make a determination exactly where we feel that the risk grading should reside. For the most part, we start with a three. We usually start with a five, because some of these business cases were in operations, and we didn't think necessarily that is something we need to really worry about.

But given the fact, you know, we heard from GAO in terms of we want to see the risk grading realized, and actually we thought what we were doing and then started a three. And then we would make decisions based on where we are with those projects within those business cases or investments. We would make a decision whether or not the project is risky or not risky. But we continued

this to start at a three and then we are way back and forth between a three, between a one and a five.

Ms. KELLY. Just out of curiosity, because you have done so well with you're a ratings, do other agencies ever call and find out what you've done or what your secret is?

Mr. MAHANAND. Yeah. We've actually—we've gotten calls from three—about five agencies. We've spoken to them. We've actually spoken to the specific working group for GSA and some of the things we've done.

I mean, just from a history perspective, some of the things we've done before previously, like the data center consolidation. We got rid of our data center NRB in 2011. We just didn't get credit for it as we move along, because we started really early in that. And from our perspective is that we just wanted to make sure that the data itself and the information and the reason behind the specific intent of each one of these scores.

And so we looked at that—because I thought we did really well. We continue to do well, and I wanted to make sure that, you know, our progress, our performance reflects the scoring. That's where we actually found out there were some errors in how we were reporting. And so we—we basically worked with GAO and figure out what those areas are, corrected it, and basically provide the evidence that, you know, we are where we are with those scores. And that's why you saw from a D to an A.

Mr. WARREN. If I could just add a thought. Our approach and attitude about IT risk, I think, is part of a broader agency perspective on risk. And we work in some dangerous, risky places around the world. And so we try as an agency to be very aware of and forthright about the risk that we're facing. And Reggie and I actually lead an agencywide risk assessment process every year that looks at IT risks, financial risks, physical security risks. And so the sort of transparency that we bring to the IT risk, I think, is part of a broader culture in the agency about confronting risk.

Ms. KELLY. I yield back.

Mr. HURD. The gentleman from Montana is recognized.

Mr. GIANFORTE. Thank you, Mr. Chairman.

Mr. Warren, I understand from your testimony that you've moved 100 percent to the cloud. Is that correct?

Mr. MAHANAND. I would say, again, maybe 99.9 percent.

Mr. GIANFORTE. Let me congratulate you on your aggressiveness adoption of these newer technologies.

I'm curious, in that transition, how much work was done to move from, let's say, more custom software to more commercial off-the-shelf software, and where would you be in that transition?

Mr. MAHANAND. So as far as moving to the cloud, there's specific things that we have in terms of infrastructure as a service, platform as a service, or software as a service. Every application we look at we basically make a determination. We go back to the cloud first policy. Any new application that comes up, we look at it, we basically said whether or not there is a surface—a service offering out there that we can actually use.

So, for instance, we—when we were modernizing our internet on our internet, we basically look at the—look at the specific services, and we actually went with cloud services instead of going with, you

know, commercial off-the-shelf software. So those are the types of decisions we make when we actually look at software or look at renewed software.

Mr. GIANFORTE. And, Mr. Powner, is there, in your observations—I mean, we know that when we send a committee off to design a piece of software and we tell them we want a horse, we often get a camel as a result, because there's so many requirements that are included. And this—when we build custom software, it just drives up the cost and increases brittleness of integrations and these sorts of things.

In your observations from working with the agencies, how do you—where are we in this transition from custom designing everything to the bias that Mr. Mahanand has expressed towards commercial off-the-shelf software?

Mr. POWNER. Collectively as a government, we still custom design way too much than we need to. And the problem there is in the government changing your business process to adapt to commercial products is, is we're way behind, especially when you compare that to the private sector. There's such an unwillingness to adapt those business processes and adopt to commercial software. So we need more and more of that going forward.

Mr. GIANFORTE. But you believe that a bias towards commercial off-the-shelf would be a best practice and it would reduce cost?

Mr. POWNER. Absolutely. Absolutely. And change our business processes. Look at these financial management systems that we try to put in place. Why do some folks implement them right out of the box and others we try to modify 3 years to implement a commercial financial management system?

Mr. GIANFORTE. Yeah. Mr. Mitchell, in this transition, how much money has been saved moving to the cloud?

Mr. MITCHELL. I would have to defer to our chief information officer.

Mr. MAHANAND. I think we'd have to look at each specific offering. For example, our data centers, we—from 2013 to 2016, we saved about $8 million, but each—we haven't—I don't think we have accumulated the number of our savings. I think it's about for the last—if we calculated, about maybe 60—I don't know, $50 to $60 million for the last 3 or 4 years.

Mr. GIANFORTE. Just to put that in perspective, what percentage is that of your total budget?

Mr. MAHANAND. So our budget is about $100 million in OE and about $25 in DME, so that would actually be about 60 percent.

Mr. GIANFORTE. Sixty percent savings from moving to the cloud?

Mr. MAHANAND. Yeah.

Mr. GIANFORTE. Okay. And what have you experienced from a system reliability and security perspective? Has system reliability and security gotten better or is it harder in the cloud?

Mr. MAHANAND. I think its gotten better. I mean, I think, as Mr. Warren said, when we first moved emails to the cloud, I think we had outages daily. We moved to a cloud email system, I think we were the second in the Federal Government to do that. And I can't remember being down for more than an hour till now. And this happened in 2011, I think we started.

Mr. GIANFORTE. And from a security perspective?

Mr. MAHANAND. You know, they go through the same controls as far as testing is concerned. So, you know, we look at their CNA packages; you know, we give it an ATO. So, you know, we have a part to play in of basically looking at the security profile of each one of these cloud vendors. So we are pretty confident the security is actually—I would say much better than, you know, having a system administrator in all these different places, not necessarily looking at what they're doing.

So within the cloud, there's a single administrator. We control that administrator. So I think security is enhanced as well.

Mr. GIANFORTE. Just to play back what I've heard, a 60 percent reduction in costs, increase—dramatic increase in reliability, better security; sounds like it's a win.

Mr. MAHANAND. We think so.

Mr. GIANFORTE. Okay. Thank you.

I yield back.

Mr. HURD. Thank you.

Now the gentleman from the Commonwealth of Virginia, you're on the clock.

Mr. CONNOLLY. Thank you.

And congratulations to USAID. And I take a little bit of special interest. In my previous incarnation here on the Hill, before my 20 years in private sector, I spent 10 years on the Senate Foreign Relations Committee. And my job was to write the foreign aid bill. And I helped write the very last one to become law in 1986. That's how ancient I am. And it was so good, apparently, that we haven't passed one since.

In any event, congratulations. And I think—well, let me ask you, Mr. Warren. What happened? You were getting a D and you moved it up to an A. I'm talking process and political decisions here, not we moved the grommet to the widget and the widget to the—what happened inside A that changed it—changed the will to want to do it differently?

Mr. WARREN. So two points to make, I think. The jump from the D to the A was largely from working with GAO to better report what we had been accomplishing over a longer period of time. So if you look at the scorecard, it looks like we had this quantum leap in 1 year. I think the quantum leap was really in better reporting. The changes to get from a D to an A took place over a longer period of time than that.

But to answer the other part of your question, I think we were driven by the fact that we were having failures daily in the system as we were trying to manage it. And the fact that we have a worldwide workforce, and the only way we can communicate with our staff around the world and get our work done is through our IT systems. And if they are not working, we just can't do our job. And so it was kind of out of necessity that we realized we needed to make big changes. And then as I said, the political and the career——

Mr. CONNOLLY. Well, I would just say you say that as if, of course, we had to, we had no choice. I'm looking at a really big neighbor of yours in the Federal family, maybe the biggest, and it hasn't concluded that and it's got a worldwide enterprise too. And they're getting an F instead of an A.

So something happened in A that galvanized you to do it differently, to make different decisions, to set goals for yourself, that, unfortunately, our Defense Department has yet to do. And it could bat you person for person and then some in terms of overseas bases, operations, personnel and the like. Bigger, much bigger, and maybe you could argue more difficult, but it's as far up along as you are, and it has yet to make the decisions or show the political will you've shown.

And that's what I'm trying to get it, what—because I think that's how we all learn. You know, go talk to USAID in terms of how they did it, and I'm trying to get you on the record to get some of the elements of how did you do it.

And, Mr. Powner, feel free to jump in here, because I know you had something to do with this as well.

Mr. POWNER. Yeah. I think it's a combination of both. I mean, clearly the data cleanup was a part, but also there was a focus on some of these areas, you know, going small and reporting more risk and that type of thing. We saw big improvements there.

It was interesting, because a lot of this data's been reported to OMB for quite a while. And honestly, most agencies don't really focus on that adequately enough. This scorecard really helped. And this is important—this is important reporting because it's savings. It's things that we can use to reinvest in the Working Capital Funds. So this isn't just for the sake of reporting. It's real stuff that we need to actually get more efficient with our operational side of the house so that we can invest and modernize the government more.

Mr. CONNOLLY. Yep. And by the way, Mr. Mitchell, I hope your answer to Mr. Gianforte about savings was only on that one, because it's critical that the CFO understand what savings are being effectuated here because that's how we incentivize other agencies to do it too, right? Here's the—here's the carrot, here's the reward at the end of this process, and that's reliability, savings, freeing up capital, really worthwhile investment, and a happier, more productive workforce. But some of that we can measure in actual dollars. And I commend to you that the CFO, as well as the CIO, has to be monitoring those savings. I assume you are.

Mr. MITCHELL. Yes, I am.

Mr. CONNOLLY. Okay. Okay. Let me just say—end by saying this, and maybe, Mr. Warren, you take the lead working with Mr. Powner at GAO, but all of you, I really think it's important that this be written up electronically, but how did you do it? What were the key decision points? How low did you have to go before somebody said enough already? And show others that it's doable and replicable. Because when we don't really want to do something, we're going to isolate you as saying USAID's unique, no one else is like them, sure they can do it, but no one else can really—and we don't want—that doesn't serve our purpose at all and it's not true.

And Dave—Mr. Powner, I would urge that in your spare time we help do this. And hopefully, Mr. Hurd and Ms. Kelly would agree, there's real value hearing your story, and we want to spread that good news to other agencies that it can be done in a reasonable

timeframe and there's a reward at the end of the rainbow. So again, thank you, and congratulations.

Mr. HURD. I'd just like the record to reflect that that is the least grumpy line of questioning I've ever seen from the gentleman from the Commonwealth of Virginia, which is a pretty significant feat.

So, Mr. Warren, Mr. Mitchell, Mr. Mahanand, these don't always go this way, and thank you for what you do and thank you for the support that you're showing our men and women that are putting themselves in some very difficult and extraordinary circumstances. Thank you for being here.

And again, the subcommittees will now briefly recess for a few minutes for a third panel.

The subcommittee stands in recess, subject to the call of the chair.

[Recess.]

Mr. HURD. The subcommittees will come to order.

I'm pleased to introduce our third panel. Mr. Powner, for the third time today, thank you for being here. Ms. Maria Roat, CIO for SBA; Mr. Tim Gribben, CFO for SBA; and Ms. Althea Coetzee Leslie, the deputy administrator at the Small Business Administration. Thank you all for being here. Welcome to you all.

And pursuant to committee rules, all witnesses will be sworn in before they testify. Please rise and raise your right hand.

Do you solemnly swear or affirm the testimony you're about to give is the truth, the whole truth, and nothing but the truth, so help you God?

Thank you.

Please let the record reflect that all witnesses answered in the affirmative.

Again, to allow time for discussion—and we're racing against the clock, the votes are likely to be called soon—please limit your testimony to 5 minutes. The yellow light means you have 30 seconds; red, time is up. And please turn on the microphone.

Mr. Powner, you're recognized for an abbreviated time for your opening remarks on this panel.

PANEL III:

STATEMENT OF DAVE POWNER

Mr. POWNER. Thank you, Mr. Chairman.

SBA spends about $98 million on IT this year. About 80 percent of this is used for operational systems, leaving just over 20 million for new development. This new development includes important efforts, like its Disaster Credit Management Modernization, which automates processing and approval for disaster loan assistance. SBA reports having spent over $100 million—$150 million on this modernization in prior years.

SBA's grades have consistently been in the D range, but their current grade is a C-minus. They're one of only three agencies whose grade went up.

SBA scores best in incremental development, receiving an A in this area. Also, despite receiving a C in the data center area, SBA has plans to eventually close all but one of its 43 nontiered or smaller centers, and plans to install a necessary metering equip-

ment by 2018. SBA also plans to exceed OMB's key server utilization metric of 65 percent.

Turning to areas where SBA needs to improve, let's start with CIO tenure. Since 2004, there have been 10 CIOs at SBA, and the average tenure has been only 1.4 years. This is a major issue in why IT has not been effectively managed. Their software license inventory is not complete. They have a plan to complete this in early 2018.

Finally, I'd like to note that our work for this committee on IT budgeting, contracting, and CIO authority shows additional areas where SBA CIO has challenges is in budget formulation and strengthening their IT workforce. However, regarding FITARA's requirement for CIOs to review and improve IT contracts, SBA's processes here are quite good.

Mr. Chairman, this concludes my comments on the Small Business Administration.

Mr. HURD. Thank you, sir.

And I believe Ms. Althea Coetzee Leslie will do the opening remarks for the SBA panel.

You're now recognized for 5 minutes.

STATEMENT OF ALTHEA COETZEE LESLIE

Ms. COETZEE LESLIE. Thank you.

Mr. Chairman, ranking members, and committee members, thank you for the opportunity to discuss the SBA's implementation of FITARA.

From July 2005 to October 2016, the SBA's OCIO leadership team experienced significant disruption with high turnover: eight different CIOs during that period. Further, prior to the current CIOs arrival in October 2016, the CIO position was vacant for over a year, from July 2015 to October 2016. Consequently, key programs like the Data Center Consolidation Initiative did not receive OCIO leadership attention.

Immediately upon her arrival, the SBA CIO engaged in frank and honest conversations about the state of IT at the agency. The CFO responded in kind, and with the administrators and CFO's support, the CIO embarked on a fast-paced journey to change how the SBA builds, buys, and manages information technology to support small business entrepreneurs.

Over the last 12 months, actions taken by the CIO, in close partnership with the CFO, are transforming SBA from an agency impeded by outdated technology and unstable infrastructure, stovepipes, duplication and significant gaps, no cybersecurity strategy or operational control, to a proactive and innovative provider of critical business technology services to the SBA program offices and small business entrepreneurs.

SBA's governance model is maturing with a focus on creating and expanding strong enterprise-shared services. Program governance requires that all stakeholders are represented, engaged, and aligned to achieve program success. For example, the CIO and CFO co-chair the SBA Investment Review Board that met six times in fiscal year 2017. The IRB reviewed every major investment at least once, and the board recommendations resulted in tangible program improvements.

Additionally, the CIO conducted four major investment deep dives to review milestones, technology capabilities, funding, and risks. During one of these deep dives, the CIO identified and provided direction to correct specific contractual and roadmap-related issues in time to prevent further complications. The SBA recognizes that transparency is critical for value creation, and the CIO promotes transparency in our IT procurements to prevent duplication, cybersecurity threats, and stovepiping.

Last year, the CIO reviewed and approved all new IT contracts above $150,000. And this year, the threshold has been reduced to $50,000 to ensure we achieve our short and long-term modernization objectives.

It is our responsibility to communicate our IT goals, vision, and strategy with acquisition professionals to ensure that the entire organization understands the technical ramifications of individual purchases. I am proud to report the SBA is leading innovation as the first agency to deploy DHS's CDM system in the cloud. This has resulted in a significant cost avoided by not investing in hardware that would require future recapitalization. Further, it sets the stage and puts SBA ahead of other agencies for future DHS cloud-based CDM solutions that will further strengthen SBA's cybersecurity posture.

Along with our modernization efforts in technology, we are building our IT workforce and working to attract new IT staff to critical positions. We launched an IT strategic workforce plan to be able to support future technology initiatives. And thanks to congressional approval, we realigned our digital services team under the CIO to deliver improved mission-focused services and capabilities.

Through the implementation of the authorities contained in FITARA, our CIO is leading the charge in the achievement of agencywide IT goals. The SBA's actions taken over the last 13 months are laying the foundation for the agency's transformation into future enterprise objectives.

As we proceed in executing our enterprise IT plan, we will continue to strengthen information technology to ensure a reliable, secure, and high-performing computing environment necessary to enable the SBA to efficiently and effectively perform its mission.

Thank you again for the opportunity to share SBA's progress on FITARA implementation, and we are ready to answer any questions you may have.

[Prepared statement of Ms. Coetzee Leslie follows:]

STATEMENT OF

U.S. SMALL BUSINESS ADMINISTRATION

BEFORE THE

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

SUBCOMMITTEES ON INFORMATION TECHNOLOGY AND GOVERNMENT OPERATIONS

HEARING ON

THE FEDERAL INFORMAITON TECHNOLOGY ACQUISTION REFORM ACT (FITARA) SCORECARD 5.0

NOVEMBER 15, 2017

Chairman Hurd, Chairman Meadows and committee Members, thank you for the opportunity to discuss the Small Business Administration's (SBA) implementation of the Federal Information Technology Reform Act (FITARA). FITARA provides the tools for SBA to optimize and maintain SBA's IT infrastructure, identify areas for IT efficiency and innovation, and invest in the IT workforce. We would like to share with you today where SBA is in the process of implementing FITARA and how SBA is using FITARA to transform how IT is governed and managed. It is imperative that IT resources are aligned with the agency's mission, goals and priorities.

SBA's Office of the Chief Information Officer (OCIO) leadership team experienced a high turnover – nine CIO's since 2005 – and the CIO position was vacant from July 2015 until October 2016. Thus, initiatives like Data Center Consolidation Initiative did not get OCIO leadership attention until the arrival of our current CIO. This frequent turnover has had an impact on our IT positions "adversely affecting the ability for SBA to make lasting improvements in its IT investments and security in multiple areas"[1] as noted by the Office of the Inspector General's 2016 "Report on the Most Serious Management and Performance Challenges in Fiscal Year 2017."

[1] Report on the Most Serious Management and performance Challenges in Fiscal Year 2017
https://www.sba.gov/sites/default/files/oig/FY_2017_-_Management_Challenges_-_10_14_16_7.pdf

A new CIO on-boarded in October 2016, and took immediate action to hire key positions, including a Deputy CIO and Chief Technology Officer and reduced the OCIO vacancy rate by half. The Chief Financial Officer began serving in his current capacity in November 2016 and the Chief Human Capital Officer (CHCO) in June 2016. The CIO, CFO and CHCO began an open and honest conversation about the state of IT and the IT workforce at the agency. It was clear that FITARA provides the tools needed to transform how SBA manages IT, and imperative that the CIO, CFO, and CHCO work collaboratively to understand SBA's business needs to drive informed decisions.

Actions taken by the CIO, in partnership with the CFO, over the last 12 months are transforming SBA from an agency with unstable technology and infrastructure, stovepipes, duplication and significant gaps, no cybersecurity strategy or operational control, to a more proactive and innovative services organization responsive to the business technology needs of SBA program offices.

Transparency and Risk Management

Under the CIO's leadership, the Office of the CIO (OCIO) moved aggressively to increase governance and oversight, stabilize and modernize SBA's network, systems, data center and overall operations, address security deficiencies and improve its cybersecurity posture, and decrease OCIO's vacancy rate. The CIO is a strategic partner in shaping agency strategies, budgets and operations.

SBA's governance model continues to mature. The CIO and CFO co-chair the SBA Investment Review Board (IRB) that met six (6) times in FY17. Every major investment was reviewed at least once and resulted in tangible program improvements. The CIO held a TechStat on the Certify.gov investment to address program risk. The results of the TechStat surfaced specific contractual and technology roadmap related issues that were subsequently addressed and resulted in the IRB approving funding to proceed to the next phase. Further, the CIO conducted four (4) major investment deep dives to review milestones, technology capabilities, funding and risks. The CIO updates the IT Dashboard, as required by OMB's

capital planning and investment control (CPIC) guidance, with relevant and timely data on program risks, performance metrics, project and activity data for all major investments.

The CIO chairs a Business Technology Council that enables information sharing between the OCIO and SBA program offices regarding strategic IT transformation at SBA. Further, the CIO and Associate Administrator for the Office of Communications and Public Liaison co-chair a steering committee designed to provide oversight of SBA's intranet and internet sites. The CIO is also a voting member of the Contract Review Board that plays a vital decision making role with acquisitions that are high dollar, high impact, high visibility and actions that impact the agency mission. These councils and steering committees are instrumental in maturing processes and procedures, and driving horizontal integration, and project and program awareness.

Portfolio Review

Transparency is critical for value creation. The CFO published an FY17 Acquisition Information Notice that specified CIO approvals for all new contracts above the simplified acquisition threshold of $150,000. Fourteen (14) IT acquisitions were reviewed and approved in FY17. The CFO also published an updated Acquisition SOP in FY17 requiring CIO approval for IT-related acquisitions. For FY18, the CIO will review and approve all IT acquisitions and Interagency Agreements of $50,000 or greater.

For the first time, the CFO and CIO performed joint reviews of the FY18 Advance Acquisition Strategy and budget for all program offices. As a result of the reviews, the CIO identified duplicative investments and re-aligned IT spend to SBA's technology standards and strategic direction. SBA is consolidating licensing and leveraging the Federal Strategic Sourcing Initiative and Category Management to eliminate redundancies, and delivery more value and savings from the government's acquisition programs.

The CIO meets with the Office of Management and Budget to review SBA's PortfolioStat and progress in meeting OMB goals to drive value in to Federal IT investments. SBA demonstrated progress in

cybersecurity as reflected in an improved security posture with the implementation of new processes and technologies, and closure of 60% of long-standing audit findings.

The CIO initiated a Technology Business Management (TBM) framework pilot to create transparency into OCIO's IT costs, consumption, and performance; and, to establish collaboration and communications between OCIO and its stakeholders that is fact-based and customer-focused. The OCIO plans to use TBM to establish collaborative responsibility for making tradeoff decisions and delivering appropriate levels of service in a more cost-effective manner, thereby increasing the IT value proposition.

IT and Acquisition Workforce

In collaboration with the CHCO, the CIO identified funding and launched an IT Strategic Workforce Plan that will drive horizontal integration to ensure the proper level of involvement by all stakeholders in the development and use of IT workforce planning processes, competency models, and critical elements definition. The initiative is underway and the as-is analysis is nearing completion.

The CIO and CHCO led the realignment of the OCIO and the transition of the SBA Digital Service team into the OCIO, and to deliver improved services and capabilities, and allow for more customer and mission focused capabilities. This realignment was socialized with our congressional committees of jurisdiction and later approved by our appropriations subcommittee.

SBA conducted two training sessions in FY17 for contracting officers that supported best practices in the development, award and administration of IT contracts.

Federal Data Center Consolidation Initiative

When OMB Memorandum M-16-19[2] was released, SBA was without a permanent CIO, and SBA was reporting on its data center plans and metrics without identifying or implementing specific consolidation migration, or optimization strategies. Previous plans were drafted, but not approved or implemented, and

[2] OMB Data Center Optimization Initiative Memorandum M-16-19, August 1, 2016, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2016/m_16_19_1.pdf

data previously reported was incomplete and contained some inaccuracies. SBA updated its Data Center Optimization Initiative Strategic Plan in October 2017 and identified ten tied data centers.

SBA did not expend any funds or resources towards initiating or significantly expanding an existing data center. SBA has not expanded its data center footprint, and in fact, consolidated and reduced its headquarters data center footprint. Because of a CIO directive issued in November 2016 that no new hardware would be installed in its headquarters data center, SBA was the first agency to implement DHS' Continuous Diagnostic and Mitigation (CDM) system in the cloud.

In FY17, OCIO completed its cloud architecture and migration planning, and migrated 40 systems so far.. The OCIO consolidated and shutdown 200 servers, eliminated 50 end-of-life production servers, and consolidated existing virtual servers onto fewer physical servers significantly reducing energy consumption and reducing license and maintenance costs. Energy metering technologies are installed in its headquarters data center on all servers, and metering will be in place on all servers throughout the enterprise by the end of FY18. SBA is on track to meet its cost savings and avoidance targets and planned closures.

The CIO is approving IT budget requests, certifying that OMB's incremental development guidance is being implemented for IT investments, and reviewing and approving IT contracts. Because of the decade-long leadership and technology vacuum at OCIO, several program offices developed their own IT organizations that have operated largely independently of OCIO. With new OCIO leadership that is regularly convening agency-wide technology forums for all IT professionals, and SBA's implementation of FITARA and its governance requirements, a more collaborative partnership approach is in place. The CIO, in partnership with the CFO and OCHO, are executing a vision for the future of information technology that will result in a secure and high-performing computing environment necessary to enable the SBA to efficiently and effectively deliver on its goals.

Mr. HURD. Thank you.

And because votes have been called, we're going to limit our questioning time to about 2½ minutes. So, Mr. Gianforte, you're up first.

Mr. GIANFORTE. Thank you, Mr. Chairman.

So, Ms. Roat, sounds like you walked into a mess. And I'm just curious, what advice would you have for other Federal CIOs, given the experience you've had in trying to get your arms around it?

Ms. ROAT. Don't plan to plan, execute. Walking into a failing data center, our primary data center, we move very quickly. We had failing HVAC systems. Last November, I said very clearly to the team, no new hardware, period. And that's what embarked us moving forward on our data center, shutting down our primary data center, moving into the cloud very quickly, very fast. I brought in the right talent to do that, to be able to do that, and we executed. And it was driven by failing data centers, the gaps in technology, all of those things, and we executed.

Mr. GIANFORTE. Okay. Just for my edification, where are you in the transformation to the cloud at this point, if you had to put a percentage on it?

Ms. ROAT. So for our primary data center, we've moved about 40 systems already. We are not doing a lift and shift. We modernized everything first. So we did a migration, an actual architecture. We did a migration planning session, and we started execution of the migration in July of this year. So the 200 systems that are in our primary data center, we've done about 40 right now.

Mr. GIANFORTE. Okay. So what percentage would you say is in the cloud?

Ms. ROAT. That's roughly about 25 to 30 percent.

Mr. GIANFORTE. Okay. And what success have you had in moving departments off of custom software compared onto commercial off-the-shelf software?

Ms. ROAT. To the extent that we're not building our own code, not doing our own coding, take advantage of commercial off-the-shelf software is a service, platform is a service, we are doing it. For one of our program offices, you know, they needed some investigation software. We're using a particular product, which is a software solution right in our cloud environment. So we are driving in that direction and getting away from actual hands-on coding.

Mr. GIANFORTE. Okay. With that, Mr. Chairman, I yield back.

Mr. HURD. Robin Kelly, you're on the clock.

Ms. KELLY. Mr. Powner, in GAO's assessment, I am assuming that you gave recommendations to SBA to improve their grades and software licensing. Is that correct?

Mr. POWNER. Yes. We've been working closely with SBA.

Ms. KELLY. Okay. So, Ms. Roat and Mr. Gribben, do you believe you can implement these recommendations within the next year? And what do you think you can do? What do you think you can accomplish?

Ms. ROAT. For the software licensing, specifically there's three pieces to that we're taking into account. One is reducing the footprint of duplicative software. So that's the very first piece. We're reducing the number of licenses and providing the right level of software licenses to the users that need it.

When you look at particular software platforms, you know there's different levels. We're making sure they're assigned. So we've already embarked on getting our arms around our licensing. In particular is we're moving into the cloud, getting our arms around that. We've put the monitoring tools in place.

So we started a couple of months ago with this process in getting our arms around all of our software. And a year ago, I didn't have visibility into the entire enterprise; I do now. So that way that gives me the capability to be able to see what licenses are out there, what's deployed, not just on the cloud, but also on the desktop and the systems.

Ms. KELLY. I don't know if you have any comment.

Mr. GRIBBEN. The only thing I would add to that is that as part of the budget execution process, the CIO has visibility into all of the IT requests of the program offices. And this year, we identified some offices that had some software licenses that would be better incorporated into an enterprise agreement that the CIO had already embarked on. So from that, we're reducing the software licenses, the one offsetter in the program offices.

Ms. KELLY. Okay. It sounds like you're committed to making improvements, so we look forward to seeing your grades improve.

I yield back.

Mr. HURD. Mr. Connolly.

Mr. CONNOLLY. I thank the chair.

I just—gosh, at risk of destroying my reputation with the chairman, I think there's a lot of good news here. And a lot of it has to do, though, with having a CIO who, A, has the political will herself, but also a direct tie to the heavy agency so that she is empowered. And I assume you concur with that?

Ms. COETZEE LESLIE. Yes, we do. Our CIO has direct access to the administrator and myself as the deputy, and has also the authority to—or has control over authority to operate. And we have empowered her to do whatever is necessary to protect the agency and make sure that we are delivering the products as best we can.

Mr. CONNOLLY. Sounds like you were—before this CIO, Ms. Roat, it sounds like you were handing out glasses of hemlock of something, given the turnover that was occurring. So I don't know what you've done to make it a more pleasant and attractive place, but keep doing it.

Ms. Roat, did you want to comment on that, not the hemlock so much?

Ms. ROAT. It's not the hemlock?

Mr. CONNOLLY. But the turnover and——

Ms. ROAT. While I can't speak to my predecessors, there were some very good people there. But I will say that I've got an incredible relationship with the CFO and then with access to the administrator and the deputy administrator. Myself and my deputy make the rounds informally about once a day in the front office. And we do have actual formal standard meetings and participate in many of the boards.

Mr. CONNOLLY. Just a final point. You actually met the metrics set by OMB on data center consolidation in terms of savings, as I understand it. Keep doing it, double down on it. I think that's really important, and that's how we reinvest in ourselves once the

MGT legislation becomes law. Thank you, and congratulations on the progress you've achieved. Keep doing it.

Ms. ROAT. Thank you.

Mr. HURD. Thank you, Mr. Connolly.

Mr. Powner, what do they need to do in order to get that N to a Y in the CIO reporting directly to the Secretary——

Mr. POWNER. It's just a lot of formal reporting. There's access, from what we understand, but in terms of the reporting, I don't see the direct reporting there to the dep secretary, to the assistant——

Mr. HURD. Ms. Coetzee Leslie, do you have any opinion on making that a more formal structure to ensure the CIO reports directly to you or Administrator McMahon?

Ms. COETZEE LESLIE. We have several changes that we're looking at with agency reform, and this is certainly one that we are considering.

Mr. HURD. That's great.

Mr. POWNER. And, Mr. Chairman, I would add, you know, I think what's really important here is we've got this history of 1.4 years. Hopefully, Ms. Roat sticks around more than 1.4, but I think that change is important because, clearly, this is an executive team that we hear that is working well together and things are happening and there's great plans. But I think that's why that formality is important, the 1.4 history.

Mr. HURD. Ms. Roat, I'm sure you are expecting my question on your ability to answer whether you have 100 percent visibility of what's on your network.

Ms. ROAT. I do today. I did not a year ago.

Mr. HURD. And how are you deploying the CDM?

Ms. ROAT. We deployed CDM in the cloud. Last November when I said no new hardware on our data center, my team went back and they said but, but, but. And I said, but I want to put it on the cloud. And I said, why not? And I ask them that frequently, why not? And they went back to DHS and proposed it. DHS said let's go ahead and do it. And so we started small. Instead of buying 96 cores, spending all that money and all that hardware, we started small in the cloud, spinning up the virtual servers, adding on as we needed. So phase one we completed this summer. So, again, we're the first Federal agency to do it.

Mr. HURD. Awesome. Mr. Gribben, I'm sure you can expect what my question is going to be. How are you going to help Ms. Roat create the Working Capital Fund that MGT is going to give her, hopefully as early as tomorrow?

Mr. GRIBBEN. That is actually something that I'm going to have to work with the Office of Management and Budget and our appropriations committee. And how that would be implemented, currently what we do is any savings that are——

Mr. HURD. Let me stop you there. What conversations do you need to have with OPM—I mean OMB. Excuse me.

Mr. GRIBBEN. Most of the money we spend on information technology is 1-year money. And even with the reprogramming request into a Working Capital Fund, we'd still remain as 1-year money.

Mr. HURD. But that's what the legislation is changing where the Working Capital Fund gives the ability to, once you program that money into a working capital fund, you have 3 years to gain access.

So what you're going to ultimately need is guidance from OMB on the steps to making that happen.

Mr. GRIBBEN. Exactly.

Mr. HURD. I would welcome your suggestions on those kinds of guidance. We should be going to OPM in this—OMB, excuse me. And, Ms. Roat, your suggestions on how to do that would be very helpful as well to ensure that you have one more tool in your toolkit.

Ms. Coetzee Leslie, do you have any final comments on creating a culture within the organization to ensure you have Ms. Roat staying there for more than 1.4 years?

Ms. COETZEE LESLIE. Well, I've been telling everybody on my road trips and every forum that I attend and where I speak that, other than Disneyland, the SBA is the happiest place on Earth, and we intend to keep it that way. With the current administrator and the leadership team that's there now, we have a very, very functional team, and look forward to continuing that relationship and keeping Ms. Roat happy.

Mr. HURD. Excellent.

Mr. Powner, you're a prince. Your team is amazing. Thanks for all the effort and work that you do on the scorecard, the minority and majority staffs' work on this. I really do think it is a tool that we are starting to see real changes across the Federal IT infrastructure.

And for all of our witnesses, thank you for appearing here today.

The hearing record will remain open for 2 weeks for any member to submit a written opening statement or questions for the record.

If there's no further business, without objection, the subcommittees stand adjourned.

[Whereupon, at 4:29 p.m., the subcommittees adjourned.]

APPENDIX

MATERIAL SUBMITTED FOR THE HEARING RECORD

Opening Statement
Ranking Member Gerald E. Connolly
House Committee on Oversight and Government Reform
Subcommittee on Government Operations

Hearing on "The Federal Information Technology Acquisition Reform Act (FITARA) Scorecard 5.0"
Joint Subcommittee on Information Technology and Government Operations
November 15, 2017

Chairman Meadows, Chairman Hurd, and Ranking Member Kelly, it is great that we are back together for our fifth FITARA Scorecard hearing. I firmly believe that these hearings are critical to ensuring that agencies are properly implementing the Federal Information Technology Acquisition and Reform Act, which is better known as FITARA or Issa-Connolly. In addition to our year round work with the Office of Management and Budget (OMB) and the Government Accountability Office (GAO), these biannual hearings send a signal that our subcommittees are committed to the successful implementation of FITARA.

Today's hearing is especially important as the FITARA Scorecard 5.0 indicates that agencies have stopped making progress in several key areas. On the latest scorecard, only three agencies had letter grades that improved, while six saw their grades decrease, and fifteen stayed the same. Additionally, the Department of Treasury joined our repeat offender, the Department of Defense (DoD), in receiving a failing grade of F+. I believe that agencies with failing grades should testify before Congress as to why they are still not adequately implementing FITARA, nearly three years after enactment. If agencies with C's and D's are required to testify for subpar grades, then agencies with failing grades ought to testify as well, even if they have testified at a previous hearing.

The lack of progress in implementing FITARA is most notable in the grades of agencies on the Data Center Optimization Initiative (DCOI). Only three agencies – the General Services Administration, the Department of Education, and the Department of Housing and Urban Development (HUD) – received an A grade in this area. Under FITARA, OMB set a goal to close 4,477 data centers government-wide in Fiscal Year 2018. Government-wide, agencies have completed 65% of this goal. However, three agencies are responsible for the bulk of data center closures: DoD, Department of Agriculture, and the Treasury Department. Agencies such as the Department of Energy and the

Department of Veterans Affairs, have made very little progress. Under FITARA, OMB also set optimization metrics in order to improve the performance of federal data centers in areas such as facility utilization and power usage. In August, GAO released a report that found that as of April 2017, 17 of 22 agencies with agency-owned data centers were not planning to meet the data center optimization metrics established by OMB. This is troubling because until agencies improve their optimization progress, OMB's $2.7 billion initiative-wide cost savings goal may not be achievable.

Through August 2017, 20 agencies have reported achieving approximately $1 billion in cost savings through the Data Center Optimization Initiative for fiscal years 2016 and 2017. Additionally, agencies are planning an additional $988 million in savings through fiscal year 2018. That means the federal government is leaving a little under $670 million in savings on the table by not making strides in closing and optimizing their data centers.

In July, Representative Issa and I introduced the FITARA Enhancement Act of 2017. The bill, upon the recommendation of GAO, would extend the Data Center Optimization Initiative for another two years so that agencies can continue efforts to save money by closing, consolidating, and optimizing their data centers will remain a transparent process subject to close congressional scrutiny. Additionally, the IT Dashboard and PortfolioStat provisions of FITARA allow OMB to evaluate the efficiencies and risk of IT investments and are central to the informing the FITARA Scorecard. The FITARA Enhancement Act permanently extends both the IT Dashboard and PorfolioStat, which were set to expire December 1, 2019. This will allow us to continue our oversight of FITARA implementation and continue these hearings. I am pleased that both the House of Representatives and the Senate have passed the FITARA Enhancement Act and it is making its way to the President's desk.

In August, the Administration released a plan to modernize federal IT systems with a goal of standardizing and consolidating IT acquisition which it believes will free up resources to pursue IT modernization. In order to achieve the Administration's goals, agencies should turn to FITARA's seven pillars which include enhanced CIO authorities, certification of incremental development, training the IT acquisition workforce, and maximizing tools such as the Federal Strategic Sourcing Initiative. The pillars of FITARA provide a foundation that better positions agencies to take advantage of new technologies that can help agencies secure their networks, retire their legacy IT systems, and better

achieve their missions. And in order for the Administration to achieve the goals it has set for itself, it must have leadership in place at OMB enforcing the principles of FITARA-based IT modernization. Nearly 11 months into this Administration, we are still without a Federal CIO and six federal agencies are without a permanent CIO. It will be next to impossible to achieve our IT modernization goals and attain cost savings without permanent and sustained leadership. Federal IT cannot be improved by fiat.

I look forward to hearing from our agency witnesses today. I welcome back USAID which has the highest grade in the FITARA Scorecard. I also welcome witnesses from the Small Business Administration, which has improved its score from a D- in the last Scorecard to a C- this time around, and the Department of Energy, which went from a C- to D+. I would like to hear from these two agencies what challenges they have had in implementing FITARA and any plans they have to improve their grade in the next Scorecard.

Department of Energy
Washington, DC 20585

EXEC-2017-006165

August 9, 2017

MEMORANDUM FOR THE SECRETARY

THROUGH: MATTHEW B. MOURY
ACTING UNDER SECRETARY
FOR MANAGEMENT AND PERFORMANCE

FROM: STEPHEN (MAX) EVERETT
CHIEF INFORMATION OFFICER

SUBJECT: **ACTION:** Designate the Chief Information Officer as a Direct Report to the Secretary and Deputy Secretary

ISSUE: Whether to approve and sign the memorandum designating the Chief Information Officer (CIO) as a direct report to the Secretary and Deputy Secretary.

BACKGROUND: The Department's CIO currently has dual reporting responsibilities. The CIO reports directly to the Secretary and Deputy Secretary for purposes of carrying out responsibilities under 44 U.S.C. §§ 3501-3521, while reporting to the Under Secretary for Management and Performance for all other responsibilities. This bifurcated reporting relationship subjects the Department's efforts to implement the Federal Information Technology Acquisition Reform Act (FITARA)[1] to continued criticism from Congress, the Office of Management and Budget, and the Government Accountability Office; and is a departure from private sector best practices.

In 2013 the Office of the CIO was realigned under the newly created Under Secretary for Management and Performance, thereby severing the CIO's historical direct reporting relationship with the Secretary and Deputy Secretary. In 2016, under the Department's FITARA implementation efforts and in recognition of a pre-existing statutory requirement,[2] the Department's organizational diagram was updated to reflect the CIO's responsibility to report directly to the Secretary but only for purposes of carrying out responsibilities under 44 U.S.C. §§ 3501-3521. The House Committee on Oversight and Government Reform does not recognize this change as compliant with FITARA, and,

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[1] Title VIII, Subtitle D of the *National Defense Authorization Act for Fiscal Year 2015*, Pub. L. No. 113-291.
[2] 44 U.S.C. § 3506.

accordingly reduced the Department's overall implementation grade in its last two FITARA scorecards. The Department would be better served in this regard if it were to reestablish a direct reporting relationship between the CIO and the Secretary and Deputy Secretary. This action is consistent with the President's focus on cyber security and attendant accountability for agency heads.

A formal reorganization package would need to be prepared and reviewed by all appropriate offices within the Department if this direct reporting relationship were reestablished. In that process, all relevant delegations and designations would also have to be reviewed so that it is clear from and to whom the authority is being delegated.

OPTIONS:

A. Designate the CIO as a Direct Report to the Secretary and Deputy Secretary and direct the Under Secretary for Management and Performance to move forward with a reorganization package , or
B. Maintain the current bifurcated reporting relationship.

RECOMMENDATION: That you designate the CIO as a Direct Report to the Secretary and Deputy Secretary and sign the memorandum directing the Under Secretary for Management and Performance to move forward with a reorganization package to establish the CIO as a direct report to the Secretary and Deputy Secretary for all CIO functions. This change would further demonstrate the Department's commitment to best practices in IT management and cyber security.

APPROVE: R. P DISAPPROVE:_____ NEEDS DISCUSSION:_____ DATE: AUG 24 2017

The Secretary of Energy
Washington, DC 20585

August 24, 2017

MEMORANDUM FOR THE UNDER SECRETARY FOR MANAGEMENT
AND PERFORMANCE

FROM: RICK PERRY Rick Perry

SUBJECT: Chief Information Officer Reorganization Package

This Memorandum directs the Under Secretary for Management and Performance and the Chief Information Officer (CIO) to work with the Deputy Secretary of Energy to effectuate the designation of the CIO as a direct report to the Secretary and Deputy Secretary for all CIO functions.