

**DEPARTMENT OF DEFENSE AUTHORIZATION
OF APPROPRIATIONS FOR FISCAL YEAR
2015 AND THE FUTURE YEARS DEFENSE
PROGRAM**

WEDNESDAY, FEBRUARY 26, 2014

U.S. SENATE,
SUBCOMMITTEE ON READINESS
AND MANAGEMENT SUPPORT,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

**DEPARTMENT OF DEFENSE INFORMATION TECH-
NOLOGY ACQUISITION PROCESSES, BUSINESS TRANS-
FORMATION, AND MANAGEMENT PRACTICES**

The subcommittee met, pursuant to notice, at 2:34 p.m. in room SR-232A, Russell Senate Office Building, Senator Jeanne Shaheen (chairman of the subcommittee) presiding.

Committee members present: Senators Shaheen, McCaskill, Donnelly, and Ayotte.

Majority staff members present: Jason W. Maroney, counsel; and John H. Quirk V, professional staff member.

Minority staff members present: William S. Castle, minority general counsel; Ambrose R. Hock, professional staff member; and Daniel A. Lerner, professional staff member.

Staff assistants present: Daniel J. Harder and Alexandra M. Hathaway.

Committee members' assistants present: David J. Park, assistant to Senator Donnelly; Nick Ikeda, assistant to Senator Hirono; and Bradley L. Bowman, assistant to Senator Ayotte.

**OPENING STATEMENT OF SENATOR JEANNE SHAHEEN,
CHAIRMAN**

Senator SHAHEEN. Good afternoon. Sorry to keep you all waiting. At this time, I would like to call the subcommittee hearing to order.

I want to begin by acknowledging my colleague from New Hampshire and ranking member, Senator Ayotte. It has been great to have a chance to work with her in this subcommittee, just as we do in New Hampshire. So we are always pleased to be here representing New Hampshire on the subcommittee.

During the hearing today, we are going to be receiving testimony regarding information technology acquisition, business transformation, and management practices. And this is the first hearing

of the Readiness and Management Support Subcommittee, and I think we are beginning with an issue that is critical, as we look at the many other issues we will be addressing in the Department of Defense this year.

The challenge of procuring IT systems in a timely and cost-effective manner is not something that is unique to the Department of Defense. Unfortunately, the stories of billions of dollars that are lost without any useful product as the result of that spending have appeared throughout the Federal Government, and while we recognize that this issue is not unique to the Department of Defense, it is clearly the biggest department within the Federal Government, and we have seen these issues appear, unfortunately, over a period of years.

In fiscal year 2012, DOD IT acquisition investments totaled \$32 billion, a sum which reflects the Department's growing need for sophisticated and reliable IT infrastructure. However, the \$32 billion is expended across the Department under the supervision of multiple officials with what is often too little involvement of the operational users and those who must defend IT systems against cyber threats.

GAO will soon release a report on acquisition of major IT systems in the Department of Defense, and though the report is still in draft form, the results that we have seen are disturbing. Of the 15 programs GAO reviewed, 7 experienced growth in their cost estimates, ranging as high as 2,233 percent. Twelve programs experienced schedule slippage, ranging from a few months to 6 years, and only three programs met their system performance targets.

Among the programs assessed were some that could have an impact on DOD's ability to meet the statutory goal of achieving an auditable statement of budgetary resources by the end of fiscal year 2014 and an auditable financial statement by the end of fiscal year 2017 which, as I am sure you all know, is a major priority for this subcommittee and for the Senate Armed Services Committee as a whole.

We must find ways to lower costs and improve inefficiency, while also improving our resiliency to cyber attack. A major piece of that challenge will be reforming our cumbersome acquisition process. Our current systems which are better suited for weapons systems than IT often produce systems already outdated once deployed. A new rapid approach with proper oversight which capitalizes on the knowledgeable IT workforce is necessary to correct these deficiencies.

As you all know, this is not the first time the Armed Services Committee has tackled this issue. Section 804 of the National Defense Authorization Act for 2010 directed the Secretary of Defense to streamline and improve effectiveness of our current processes. The subcommittee remains interested in section 804 and we look forward to hearing from you all how the Department intends to move forward.

Another area of interest to the subcommittee is DOD's ongoing data center and server consolidation on cloud migration. This initiative called the Joint Information Environment, or JIE, is extremely ambitious and complex, and yet it seems to lack formal

management structures and processes. So we look forward to hearing more about how the JIE is expected to unfold.

So with those opening remarks—and I have a longer statement that I will submit for the record—I would like to welcome our four witnesses this afternoon. Testifying we have Assistant Secretary of Defense for Acquisitions, Katrina McFarland. Welcome. Acting Deputy Chief Management Officer, Kevin Scheid. Am I pronouncing your name correctly?

Mr. SCHEID. Yes, you are.

Senator SHAHEEN. Good.

Chief Information Officer Teresa Takai. Again, correct pronunciation?

Ms. TAKAI. Yes.

Senator SHAHEEN. And in addition to these representatives from the Department of Defense, we welcome David Powner of the Government Accountability Office. Thank you for being here.

Now I would like to turn over to Ranking Member Senator Ayotte for her statement. Thank you.

[The prepared statement of Senator Shaheen follows:]

[SUBCOMMITTEE INSERT]

STATEMENT OF SENATOR KELLY AYOTTE

Senator AYOTTE. Thank you. I want to thank Chairman Shaheen. It is really an honor to serve with you on this Readiness and Management Support Subcommittee and also to serve New Hampshire in the U.S. Senate with you. We have been able to work in a bipartisan fashion on issues that not only impact our State but issues that impact the country in this important subcommittee, and certainly today's topic is no exception to that.

Within the existing problems associated with acquisition reform, one area of growing concern is how the Department of Defense acquires information technology. And I will also say that this is not a unique problem across the Government. I also serve on the Homeland Security and Governmental Affairs Committee, and this is an issue that has been replete within that agency as well.

But getting this right is not just important from an acquisition process point of view, but it is also critical because information technology can be used as a vital tool to help the Pentagon become more efficient and also serve as a better steward of taxpayer dollars overall.

One of the most glaring examples of problems with IT acquisition was the termination of the Air Force's Expeditionary Combat Support System (ECSS). After 7 years and over \$1 billion, this program was terminated in 2012 after it was determined that it would require another billion dollars to salvage, and even then, only a fraction of the program's requirements could be met.

So this is an example. We need to understand what went wrong and how we are going to prevent these types of situations going forward particularly with the challenges we face with limited defense dollars.

Equally disturbing as the cancellation of the ECSS, it places in doubt the Air Force's ability to conduct the statement of budgetary resources by the end of this fiscal year which has been a priority of the Senate Armed Services Committee as a whole. And this is

an incredibly important issue that we do not plan to let go and I hope that you do not either.

However, I do appreciate that addressing problems related to IT acquisition appears to have been very much on the mind of the authors of the recently reissued DOD instruction 5002, which articulates the defense acquisition process. It appears that many of the guiding principles set forth in the report mandated by section 804, which I know we are going to spend a substantial amount of time on today, of the 2010 defense authorization were incorporated into the new DOD instructions.

Despite this, I remain concerned by the GAO reports indicating that a number of the Pentagon's IT acquisition programs have not been correctly categorized on the Government's Web site called the IT Dashboard which tracks the progress of such programs.

Another important part of this hearing will be understanding whether the Department categorizes IT programs differently, how we can ensure that the Government's Web site employs a standardized metric for purposes of organization and transparency.

As my colleagues know, I am also very interested in ensuring that the Department of Defense is ready to be audited because this will help ensure that we can better scrutinize spending to identify and eliminate waste and duplication before it happens. And it is very important in the critical juncture we find ourselves right now with the Department of Defense to be able to distinguish between necessary defense budget cuts and cuts that would harm our troops and damage our military readiness, which is the foundation and purpose of this committee.

In that spirit, Assistant Secretary McFarland, based on your position as Assistant Secretary of Defense for Acquisition, I also look forward to addressing some of the broader acquisition challenges that DOD faces beyond the IT issues, but I certainly think that they relate to the IT issues.

For example, from 2007 to 2013, the Air Force wasted about \$6.8 billion on 12 major acquisition programs, of which I have a list with me of those programs, and there is no doubt that the Services, including the Air Force are confronting difficult budget challenges. But it is really hard when we see billions of dollars wasted on programs, and yet we see proposals where the Services are making proposals to cut very important programs to our men and women in uniform.

One of those programs I have been quite outspoken about is Secretary Hagel publicly confirmed this week that the Air Force is proposing the premature retirement of the A-10s in an effort to save \$3.5 billion over the Future Years Defense Program. I believe that this is a serious mistake, that we will lose the ability to have the close air support, which General Odierno, the leader of the Army, says is the best close air support platform we have today. I believe that we risk putting our troops not having the re-attack times and the capacity that the A-10 provides well before we will have the F-35 variant that is going to take up this mission or has purported to take up this mission in the future. And we will have a gap that I believe is not good for our troops and could put them in danger.

So that is why I want to put in perspective, when we look at \$6.8 billion in wasted money and then we talk about having to cancel

important air platforms like the A-10 that perform such an important function for our men and women in uniform and particularly those on the ground—that is why acquisition reform I know to all of you matters and why getting it right is critical in terms of making sure that our taxpayers' dollars are used wisely, but most importantly, that the men and women in uniform who serve us every day are able to have the support that they need, the equipment that they need, and the training that they deserve in serving our country.

So I appreciate all of you being here today and I look forward to this important discussion.

And I want to thank the chairman again for holding this hearing.

Senator SHAHEEN. Thank you very much, Senator Ayotte.

I would ask, Assistant Secretary McFarland, if you would go first, followed by Mr. Scheid, Ms. Takai, and Mr. Powner.

STATEMENT OF HON. KATRINA G. MCFARLAND, ASSISTANT SECRETARY OF DEFENSE FOR ACQUISITION, DEPARTMENT OF DEFENSE

Ms. MCFARLAND. Thank you, Chairman Shaheen, Ranking Member Ayotte, distinguished members of the subcommittee, for this opportunity to discuss information technology acquisition.

I would like to submit my full testimony for the record and will summarize it in the time I have.

I am honored to represent the Department of Defense, along with my colleagues from CIO, DCMO, and GAO. My focus will be on IT acquisition policy, people, and the oversight of major defense acquisition programs and major automated information systems.

IT represents a considerable portion of all acquisition programs within DOD. The Department manages two fundamental types of software programs: national security systems and defense business systems.

National security systems are generally information systems which involve intelligence activities, cryptological activities, command and control of military forces, and systems that are an integral part of weapons or weapons systems.

Defense business systems are information systems which include financial systems, management information systems, and IT and cybersecurity infrastructure used to support our business activities.

Section 804, as Senator Ayotte, the ranking member, mentioned, of the NDAA for Fiscal Year 2010 directed that the Department develop and implement a new acquisition process for IT systems based on the 2009 Defense Science Board report, the recommendations of which to condense timelines by increasing collaboration and improve processes to deliver right capabilities to the warfighter in operationally relevant timelines.

To do this, one must start with a defined requirement or capability. The Chairman of the Joint Chiefs of Staff has modified the Department's Joint Capability Integration and Development System, which develops our requirements, by introducing the IT Box concept to support more rapid acquisition timelines.

On approval of a requirement formulated in an initial capabilities document or a capabilities development document, requirements management is delegated to an appropriate body in a spon-

sor's organization. The organization is then not required to come back for requirements changes unless they exceed the parameters of the IT Box.

In addition to the IT Box introduction, the Department has introduced the interim Department of Defense directive operation of the defense acquisition system, also referenced by the ranking member issued this fiscal year. It includes guidance to adopt a modular, open systems methodology with heavy emphasis on design for change in order to adapt to the changing circumstances consistent with the commercial agile methodologies. It describes acquisition models where across each model the policy addresses the realization that IT capabilities may evolve so desired capabilities can be traded off against cost and initial operational capability to deliver the best product to the field in a timely manner.

In accordance with section 933 of the NDAA for Fiscal Year 2011, the Department developed a strategy for the rapid acquisition of cyber tools, applications, and capabilities for the U.S. Cyber Command and other military cyber operation components by chartering the Cyber Investment Management Board that unites IT policy and operational requirements with identifying gaps both in resources and in capabilities.

Now I would like to address the Department's most important asset, our people. Finding the expertise and skill sets required to develop and acquire capabilities for IT systems and cyberspace operations is challenging. The talent pool is small. Industry and Government seek it, and it rarely meets the level of expertise across all areas. The Department is working on many fronts to address these challenges. For example, with the assistance of the Defense Acquisition Workforce Development Fund, the Department has established a functional area for IT acquisition to support training in the Defense Acquisition University.

The Department is working to simplify the process of IT acquisition. There is an ongoing legislative review between the Department and Congress. There is an effort to develop a cybersecurity guidebook for the program manager that assists them in understanding what cybersecurity activities are necessary to conduct at each point of the acquisition lifecycle. The Program Assessment Root Cause Analysis Directorate contributes to our understanding of the root causes for the IT program failures in order to prevent them from reoccurring.

Finally, there is an effort to help our program management by having our cybersecurity test and evaluation procedures include early development test and evaluation involvement for all of our test activities.

I would like to conclude with the following key points.

The Department will continue its efforts to operate as affordably, efficiently, and as effectively as possible. We are evolving our approach to acquisition for IT and recognize the distinct challenges that come with it. We are taking a disciplined and proactive step to improve our IT processes and compensate for them.

Now, thank you for your ongoing support of our men and women that are in uniform. I know you share my desire to ensure that they have the resources necessary to meet and accomplish their mission.

[The prepared statement of Ms. McFarland follows:]
Senator SHAHEEN. Mr. Scheid?

**STATEMENT OF KEVIN J. SCHEID, ACTING DEPUTY CHIEF
MANAGEMENT OFFICER, DEPARTMENT OF DEFENSE**

Mr. SCHEID. Good afternoon and thank you. Senator Shaheen, Senator Ayotte, members of the subcommittee, my name is Kevin Scheid and I am the Acting Deputy Chief Management Officer of the Department of Defense. As the Deputy CMO, I am the Secretary's and the Deputy Secretary's principal official for providing management oversight across the Department's military components, agencies, offices, and organizations. I report to the Deputy Secretary who is also the Chief Management Officer of the Department.

Thank you for the opportunity to provide this update on the management of the Department's business operations.

As you are aware, the basic mission of the Department of Defense is to hire, train, equip soldiers, sailors, airmen, and marines, to deploy them abroad to fight and win the Nation's wars, to care for the wounded and their families, to redeploy those troops home safely, and to retrograde and refit the equipment capabilities to be ready to fight and win the next fight.

The Department performs this mission through various business areas or functional areas such as human resources, logistics, acquisition, financial management, installations and security. These are the building blocks of the defense business enterprise.

For the Department to be successful in performing these functions, my office works with the Department's senior leaders in defining the functional areas, establishing clear business goals and objectives, guiding the Department in establishing and aligning its processes, ensuring those processes are enabled by modern, interoperable business systems, and establishing meaningful outcome-oriented performance measures.

I am relatively new in this position, having recently returned from an assignment at NATO as the Chief Operating Officer and Deputy General Manager of a large NATO agency. On November 25th, the Secretary designated me as the acting DCMO at the time of Ms. Beth McGrath's retirement.

There have been significant changes made since Ms. McGrath last testified before the subcommittee. The most important of these changes was Secretary Hagel's December 4th decision to strengthen management in the Department by directing a series of consolidations and realignments within the Office of the Secretary of Defense. My office will be consolidating with the Office of the Director of Administration and Management, a relatively small office of about 36 employees, and the Office of the Assistant Secretary of Defense for Intelligence Oversight, an office of about 9 or 10 employees.

In addition, the defense field activity of Washington Headquarter Services and the Pentagon Force Protection Agency will be realigned under the Deputy CMO's office.

Further, the Secretary directed the transfer of oversight responsibilities for the technical aspects of defense business systems from my office to the Office of the Chief Information Officer. This change

would realign responsibility and accountability for business systems in the Department while requiring my office to continue leading the development of requirements for those systems.

These reforms may require changes to section 2222 of title 10 and we are reviewing if that is necessary at this time.

The Secretary's goal in strengthening the Deputy CMO's office in this way through these consolidations is best captured, I think, in following quote from Secretary Hagel. This consolidation enables the role of the Deputy CMO as the principal staff assistant and advisor to the Secretary and Deputy Secretary of Defense for full spectrum oversight on both the OSD and DOD levels of management administration, coordination and collaboration across DOD components and business functions, performance improvement, and regulatory compliance.

The Department is in the midst of implementing the Secretary's direction, and all the Department's witnesses here today are working closely together on a path forward.

While the details are still being developed, I am confident that the focus on management and oversight will help advance DOD's progress in the business operations. As we execute these consolidations, the Department continues to make progress in the selection, acquisition, and control of IT systems.

Building on the principles contained in the Department's response to section 804 of the National Defense Authorization Act for Fiscal Year 2010, important steps have been taken. Under Assistant Secretary McFarland's lead, lessons from the 804 report have been incorporated in the Department's overarching acquisition policies. Under the Chief Information Officer, Ms. Takai's lead, there have been lessons learned incorporated into the joint information environment. Under my predecessor's lead, Ms. McGrath, we have incorporated or embedded lessons learned in the business mission areas of what we call the Integrated Business Framework for the Department.

This framework, overseen by the Defense Business Council that I currently chair, has driven quantifiable improvements in the Defense Department's business environment. Over the past 2 years—and we have only been through two cycles of this—we have improved the alignment of our strategies, enhanced data available for decisionmaking, and rationalized our business systems environment by reducing funds certifications by over \$1 billion and retiring 60 legacy systems. We have only gone through two cycles, as I mentioned, and it is early, but this process is yielding some important results.

Before I close and in response to a topic that you specifically raised in your letter and mentioned in your opening comments, I would like to discuss briefly the Department's progress towards its audit readiness goals.

Bringing this very large Department together, applying consistent business practices, and ensuring good internal controls is difficult, as I am sure you can appreciate. But our efforts are making progress, exhibited most recently by the Marine Corps' achievement of an unqualified favorable audit of its current year appropriation. Secretary Hagel is committed to audit readiness, as is the Department as a whole. We continue to work with the Comptroller;

that is, my office continues to work with the Comptroller to implement the DOD plan to achieve audit readiness. The Department has resources, governance strategy, senior leader commitment needed for success. While it is too soon to know for sure, we expect most budget statements to be audit ready by the goal of September 2014.

In closing, I would like to reemphasize that the Secretary is strongly committed to strengthening the Department's management, and the steps he directed in December are taking shape and leading to his vision of stronger business processes, a simplified business environment, and greater oversight. Strengthening the Department's management is a high priority of the Secretary, as well as it is for this subcommittee and the full Senate Armed Services Committee. We appreciate the committee's support and guidance in meeting these priorities over the years. Together our collective efforts are improving the support to our soldiers, sailors, airmen, and marines while realizing greater efficiency and effectiveness for the American taxpayer. We are committed to continuing these efforts.

Thank you for the opportunity to testify and I would be glad to take questions later on.

[The prepared statement of Mr. Scheid follows:]

Senator SHAHEEN. Thank you.

Ms. Takai?

**STATEMENT OF TERESA M. TAKAI, CHIEF INFORMATION
OFFICER, DEPARTMENT OF DEFENSE**

Ms. TAKAI. Thank you, Madam Chairman. Thank you so much for inviting us this afternoon. I really appreciate this opportunity to testify before the subcommittee on I know topics that are of great importance to all of us, and certainly clearly it is my world, so certainly of special insertion to me.

I have provided a written statement that covers the scope of everything that the CIO does, and rather than trying to go into all of that, because I know we are very focused in a particular area, I would like to go and focus my remarks mainly around the joint information environment, if I could.

We really wanted to be able to describe to you this key initiative that really is there to ensure that the Department has access to information on secure information networks—and I will come back to that because that really is pivotal in what we are doing—and also the tools necessary to execute our warfighting and business support missions.

I want to say right off the top the effort that we are taking around the IT infrastructure is in direct support of the IT acquisition process and also in support of the business transformation efforts. It is really around being able to provide the technology that is necessary for the business systems to accomplish what they need, but also by standardization to assist with the IT acquisition process in that important area.

I think, as you know, our mission success really depends upon the ability of our military leaders and civilians to act decisively based on the most timely and accurate information. Recognizing that information is a strategic asset, that is really what is really

pushing us to undertake, as you mentioned, a very ambitious effort to realign and restructure how our networks, our hardware, software that is housed in data centers is really constructed, operated, acquired, and defended in order to provide better information access to our users, improve our ability to not only defend the networks and the data but make it responsive to our changing technological and operational factors.

This effort, called the Joint Information Environment, is intended to enable and empower our military's decisionmaking and our most important asset—and that is our people—by providing warfighters and our mission partners a shared IT infrastructure that consist of federated networks with common configurations and management and a common set of enterprise services with a single security architecture. I know that is a mouthful but it really does really describe what we are intending.

The ultimate benefit of the JIE is really to the commander in the field. It really allows for more innovative integration of information technologies, operations, and cybersecurity, its related tempo more appropriate to our face-paced operational conditions.

Some of the other benefits are really, number one, as I mentioned, a single security architecture that enables our cyber operators at every level to see the status of the networks for operations and security and provide standard resilience and cyber maneuver options for cyber forces. The complexity of our networks today make it very difficult for our cyber operators to actually see who is on our network, to be able to defend our networks as we would like them to.

As you mentioned, the consolidation of our data centers, which includes also our operation centers and our help desks, will enable users and systems to have timely and secure access to the data and services needed to accomplish their assigned missions regardless of their location.

Finally, a consistent DOD-wide IT architecture that defines our enterprise standards and supports fielding of Department capabilities in support of information sharing, as well as the sustainment and integration of legacy systems, will be an important part again of the way that we not only acquire systems but the way we operate and sustain.

The Department plans on utilizing the Services' existing programs' initiatives and mainly our technical refresh dollars to deploy and migrate to JIE standards utilizing specific implementation guidance. Simply stated, JIE will help improve our ability to field capability faster and more efficiently and allow us to be better stewards of taxpayer resources.

Now, in line with this, it is also important that we take actions necessary to increase visibility into our IT budgets and spending patterns and strengthen our analysis of IT investments as part of our overall governance and oversight processes. I am working very closely with my colleagues here to identify ways to leverage the Department's three core processes, our requirements, budgeting, and acquisition, to address the systemic conditions resulting in our current stovepiped IT infrastructure. This is critical if we are to achieve the agility and responsiveness from IT that our warfighters demand. Working closely not only with my colleagues here but the

Comptroller and CAPE, we will deliver the flexible, agile acquisition processes that Ms. McFarland spoke of that really meet our requirements and budgeting processes to institutionalize the agility and flexibility necessary for this domain.

Finally, maintaining information dominance for our warfighter is critical to our National security. The efforts outlined above will ensure that the Department's information capabilities provide better mission effectiveness and security and are delivered in a manner that makes the most efficient use of our financial resources.

I very much appreciate your interest, your staff's interest in our efforts and look forward to your questions.

[The prepared statement of Ms. Takai follows:]

Senator SHAHEEN. Thank you very much.

Mr. Powner?

STATEMENT OF DAVID A. POWNER, DIRECTOR, INFORMATION TECHNOLOGY AND MANAGEMENT ISSUES, GOVERNMENT ACCOUNTABILITY OFFICE

Mr. POWNER. Chairman Shaheen, Ranking Member Ayotte, and members of the subcommittee, we appreciate the opportunity to testify this afternoon on improving IT acquisition at DOD.

Of the \$82 billion the Federal Government spends on IT annually, DOD spends almost half of this, \$40 billion. Of that, about \$25 billion is spent on legacy systems. Therefore, it is important that DOD not only acquires new systems and on time and within budget but that it also efficiently manages existing systems.

Regarding systems acquisitions, too often we hear of failed projects like ECSS. These complex projects, though, can be delivered successfully when there is appropriate transparency, accountability, and oversight and program management.

Starting with transparency, the IT Dashboard was put in place to highlight the status and CIO assessments of approximately 700 major IT investments across 27 departments. This public dissemination of each project's status is to allow OMB and the Congress to hold agencies accountable for results and performance. Many agencies have accurate information on the Dashboard, and that information is used to tackle troubled projects. DOD does not. DOD reports 93 IT investments on the Dashboard—81 are in green status, meaning low risk, and 12 are in yellow status, meaning medium risk, and there are no projects rated as high risk, or red.

Chairman Shaheen, there are many problems here. First, some of these projects should be red based on the review that you currently mentioned in your opening statement. Second, the data is not always current since CIO ratings have not been updated since September 2012. And third, there are major investments that are not even listed on the Dashboard.

Given the amount Defense spends annually on IT and its not so stellar track record, Congress absolutely needs a clear picture of what these investments are and how they are performing. Therefore, DOD needs to ensure that all projects are on the Dashboard and accurately updated.

Once this transparency is improved, key IT executives need to be accountable, along with the appropriate business leaders responsible for these projects.

We have seen successful oversight performed by using a tiered portfolio-based governance structure, meaning that not all DOD major investments need to be overseen exactly the same way. Some of the 93 investments can be delegated below the CIO level. Most should be overseen by the CIO, and some of the Department's major priorities likely demand oversight above the CIO level.

Turning to program management, we recently issued a report that showcases successful IT acquisitions. One of those projects was DSS's global combat support system. Several best practices increased the likelihood of IT acquisitions—that they will be delivered on time and within budget, and this starts with getting the requirements right by involving the right users and prioritizing those requirements. A big takeaway from these successful stories was that each of these successful investments was an increment of a larger project. So tackling projects in increments is a best practice.

We have ongoing work that is currently looking at agencies, including DOD, and how they are tackling these large investments in more manageable pieces. That report will be issued in the spring and will show that DOD is not acquiring systems in small enough increments.

Turning now to operational systems, OMB started a data center consolidation effort in 2010 to address the Government's low server utilization rates estimated on average at 10 to 15 percent, far below industry standard of 60 percent. This effort was to result in \$3 billion in savings across all departments. DOD has done a really good job when it comes to data centers, Chairman Shaheen. They have identified 2,000 centers to date. They have closed over 250 centers, and they have reported \$875 million in savings. They have also reported to us in the current review that their savings alone could match OMB's government-wide goal of \$3 billion by the end of 2015.

OMB recently expanded the data center consolidation effort into a larger initiative to eliminate additional duplicative spending in administrative and business systems. As part of this, DOD identified 26 opportunities where duplication existed in areas like enterprise software, security infrastructure, and network operations. DOD estimates that these 26 opportunities, which include their data center consolidation efforts, could result in savings that exceed \$5 billion. Given the magnitude of DOD's potential savings associated with duplicative systems and data center consolidation, it is essential that they have support for and track these savings and not use poor systems or processes as an excuse for not realizing billions in savings.

In summary, by tackling duplicative IT systems and consolidating data centers, DOD can save over \$5 billion through 2015 alone, and systems acquisition performance can be greatly improved by reporting accurately and timely on the IT Dashboard, improving governance, acquiring incrementally, and following program management best practices.

This concludes my statement. I would be pleased to respond to questions.

[The prepared statement of Mr. Powner follows:]

Senator SHAHEEN. Thank you all very much both for being here and for your testimony and for what I know will be a good discussion.

I know that Senator Ayotte is going to address some of the questions that, Mr. Powner, you raised in your testimony, but I want to ask—I do not know—Assistant Secretary McFarland if you are the best person to respond or Ms. Takai. But when Mr. Powner says that all of the projects that are on the Dashboard—none of those are listed as high risk, is that because there is a genuine belief that none of them are high risk, which I assume means at risk of not coming to successful conclusion. Is that what you are suggesting, Mr. Powner, not working in the way that those projects should when you describe high risk?

Mr. POWNER. I think in order to manage problem projects, you need to acknowledge you have a problem. So if you look at our review of the MAZE programs—there are 40 MAZE programs—I can identify several of those MAZE programs that clearly, I believe, should be red and should be managed aggressively as red projects so you get them back on track. They are overrunning. The schedules are being pushed out. And I think if you acknowledge they are red, you govern those projects differently if you acknowledge that you have a problem. So that is what we would like to see. We would like to see more of those projects as red.

Ninety-three major investments. There are a lot of complex projects there. It is not that they are doing a bad job that they are red. I mean, there are red projects across programs. There are red projects in the private sector. But you cannot fix the problems unless you acknowledge you have a problem.

Senator SHAHEEN. So can I ask if you would respond to that?

Ms. TAKAI. Let me respond as it relates to the reporting on the Dashboard, and then Ms. McFarland can speak to some of the acquisition processes.

First of all, I think I want to make sure that we acknowledge that there is a challenge for us in actually getting a clear rating in terms of a red, yellow, green. So I certainly do not want to walk away from the fact that that is a very incredibly difficult situation for us in terms of being sure that we have the right categorization and we are communicating that categorization correctly. So I want to make sure that I make that statement.

Second of all, I think to answer your question, certainly because of the categorization issues, I would not necessarily depict our current ratings that are out on the Dashboard as being 100 percent correct. That is right. And one of the things that we are working on now is to try to do two things: number one, to get a better alignment of the way that we have been doing the ratings with the way the ratings have been defined in the OMB Dashboard. And that is something, again because some of the complexities, we have not done. And Ms. McFarland's organization and mine have been working on a new directive that will better define exactly what the status is.

The second challenge and a part of doing—

Senator SHAHEEN. Can I interrupt just a minute?

Ms. TAKAI. Sure.

Senator SHAHEEN. Are you in agreement with Mr. Powner that accurately reflecting the level of risk involved in a project is helpful in managing it properly?

Ms. TAKAI. Yes, ma'am. Yes. I mean, certainly it is important that we understand what the challenges are. However, I would add, though, as Mr. Powner said, very often we do recognize that our programs need attention. That is actually one of the big benefits of our current DOD 5000 process, is that it really does highlight where we have issues and where we need to take action. I think we need to make sure that the actions that we are taking are accurately reflected in our, quote, ratings so that we have visibility of the actions we are taking going forward.

Senator SHAHEEN. And is there a reason why you think to date—is there something with respect to the way the ratings are done that make it particularly challenging for DOD, or will the 5000 process help identify that? And what do you see as changing in order to more effectively be able to rate the risk involved with those projects?

Ms. TAKAI. One of the challenges that I will comment on—and I know Ms. McFarland will have a comment as well—is that the way we rate programs and the judgments that we make on programs today are really driven by the 5000 process. So they do not necessarily fit well with the quarterly reporting process that is part of what OMB and the OMB Dashboard has. So consequently, it tends to result in us having the same rating for a longer period of time. And one of the things Ms. McFarland and I are working on is how to make sure that we have a rating structure that does not appear to be different from what is being reported in our milestone decision process in the DOD 5000. And that has been one of our challenges to this point, and I think it is the effort that her organization and my organization are working together to make sure we have better clarity.

Ms. MCFARLAND. Yes. Frankly, what Terry was talking about is pretty much what we are trying to change. When we just changed the 5000 over the last couple months, released the interim, some of the things that you have been highlighting, along with the ranking member, in terms of how to do IT acquisition, is changing our culture internally on how we look at risk.

And the challenge we have right now is we have a system called the Defense Acquisition Management Information Research (DAMIR). Sorry. Everything has a long acronym names. DAMIR. And it reports based on a very distinct approach from weapons systems. For us, we focus on cost, schedule, and performance. Risk is embedded in each, and we have multiple players who come in, the program manager, the OSD functional staff, and we all rate on a program. What has to happen is that those two from the standpoint of IT are aligned. And right now there is a difference in lexicon and how we think. So we have drafted up a first effort to try to look at how we take and make those risk factors look the same so we do not report on two metrics and confuse people even more.

Senator SHAHEEN. And do you actually work with the GAO as you are trying to make some of these alignments in a way that everybody agrees on how to best assess what is going on?

Ms. TAKAI. Yes, ma'am. One of the things that we have been discussing is the way that we are looking at some of the ratings to make sure that they are aligned with the way the GAO is looking, and not just GAO but also OMB is actually looking at those ratings because it is really a GAO reporting of what is in the OMB Dashboard. So it is very important that we are consistent because otherwise the other concern I have is that if we are different, then if you go and look at, for instance, another agency and you see a rating, you know, you certainly do not want to hear, well, we are DOD and so our ratings are a little different, which I am sure you hear a lot from us on other things.

Senator SHAHEEN. No, we never hear that. [Laughter.]

Ms. TAKAI. So that is an important thing not only from the standpoint of us being aligned with OMB, but also so there is consistency of reporting so that when you look at the reporting, you are getting an accurate picture.

Senator SHAHEEN. Thank you.

Mr. Powner, did you want to add something to that?

Mr. POWNER. I would just add that the interim 5000 guidance, I think, where you could tailor it to different types of acquisition software, intensive hardware, intensive using an incremental approach—the Dashboard was put in place to change culture, to change Government. Monthly ratings by a CIO is something that is a challenge for not only DOD but for others. But it is a good challenge. And so if you cannot do it in a month, strive to do it in a quarter, strive to do it in 6 months. That is better what we have gotten historically. So it was a push, but I think it is the appropriate push.

And I would add too large acquisition in IT—there is a lot of IT acquisition that are large and complex that need to follow the rigor of a 5000, the acquisition that DOD has. Other IT can be acquired more incrementally. You still want rigor, but you do not have to have the exact rigor that you have necessarily with all the details in the 5000. And having that flexibility in the current interim guidance is very good. You hear about agile development or going incrementally.

We have a report that I know Senator Ayotte is very involved with for the HSGC committee where we are looking at incremental development across the Federal Government. So we took 37 investments at DOD. And OMB has some guidance that said everyone has to do everything in 6 months. One out of 37 at DOD is going to deliver in 6 months. So DOD said that is unrealistic. I agree. But they said we strive for 12 to 18 months. And we said, okay, let us bump it up to 12 months. Those 37 investments—only 10, so about a quarter of the investments, are going to deliver something in a year. So you still have a lot of projects that do not deliver anything for years, and that is the mode we need to get out of in the Government.

Senator SHAHEEN. Thank you.

Senator Ayotte? We have been talking about the Dashboard, the IT Dashboard.

Senator AYOTTE. Thank you. So I apologize. I had to leave for a minute to come back.

On the Dashboard issue, as I read the GAO report, I see that essentially we can save a pretty substantial amount of money. And then when I look at it, we are spending \$39 billion on IT systems for DOD in fiscal year 2014. That is a huge amount of money. And I see in your report—I am really fascinated—page 5 where you basically say we have got overlap, fragmentation, and we have unnecessary duplication so that there could be much more taxpayer dollars saved if we could get that one issue right. You have probably already addressed this to some extent, but what is it that you think is the number one priority to getting at at that issue, which, as you know, is an issue rampant across Government, but here, when we are talking about \$39 billion just in one fiscal year, that is a substantial amount of money that can go to other things.

Mr. POWNER. So there is that initiative. It is called Portfolio Staff that came out of OMB, and I believe DOD is probably one of the model agencies. They identified 26 initiatives in all these categories that they claim they can save between \$3.2 billion and \$5.2 billion by 2015. That is right around the corner, and that is a lot of money.

The number one initiative out of those 26, Ranking Member Ayotte, is data center consolidation. Data center consolidation—to date, they have closed over 250 centers. Now, some of these are small closets and things like that, but there are some large centers that are closed. I can give you examples of those. They claim they have saved \$875 million to date. By the end of fiscal year 2015, \$3.1 billion. By the end of 2017, it approaches about \$7 billion. It is the model data center consolidation effort, if in fact they carry it through.

And I made a comment in my statement about how they need to track savings. There are always these comments that come up that we do not have the appropriate accounting systems and ways to calculate savings and that kind of stuff. Use a cuff system. These numbers are so large. That cannot be an excuse for not tracking those savings. There are over \$5 billion that we can save by the end of 2015. That is a lot of money that you can reinvest in other systems that are important or something else that is a priority for the Department.

Senator AYOTTE. And this cuff system—so, Secretary McFarland, where are we in terms of tracking these savings? Or maybe Ms. Takai. Sorry if I am asking the wrong person.

Ms. TAKAI. Yes, Senator. We are actually tracking the savings. We are tracking the data center closures, and we are tracking the savings on an ongoing basis.

I will just give you an example actually of an area where NDAA language that we received actually is helping us. We are reviewing all data center expenditures, and they have to be approved by my office. And so it is not really just a question of saving by closing down a data center, but we are actually eliminating some of the redundant spending that you just talked about. So I will give you an example.

In the first quarter of this year, Navy achieved a cost avoidance of \$3.4 million by disapproving three requests. Now, those requests—they would not have even known that those dollars were going to be spent if we did not have a very tight approval process

right now. As you can see, if you just take three requests versus the number, quite frankly, that come across my desk on a daily basis, we are going to be achieving the savings.

But I think the other thing I want to mention here is that in some cases these are cost avoidance, number one. They are not necessarily savings off the top line. I mean, effectively we were stopping spending.

The second thing I would note is that some of these savings, as we are looking at them, are being included in the efficiencies numbers that you actually are already seeing as the Services are coming in to report on their budget. So perhaps they are not calling them out directly because they are not thinking of IT as being a big part of their expenditure. So we are tracking it in a number of different ways.

I will close by saying it is a challenge to track the savings because the expenditure at DOD is very decentralized and it is actually done at the point that the equipment is being purchased or the data center is being equipped. And so one of our challenges is to be able to collect those dollars. But having said that, the fact that it is a challenge does not mean that I certainly do not agree that we should be tracking it and that we should be racking it up.

Senator AYOTTE. Now, it seems to me a priority given the setting we find ourselves in because the tracking of it is the motivation so that we have more accountability and then we know that those dollars can be used for other more viable purposes.

So, Mr. Scheid, I wanted to ask you. When you testified, you talked about the situation of the audit readiness of DOD. I think you said that most will be audit ready by 2014. So is the Air Force still the problem child? Are they the worst offender? Can you break it down by Services?

Mr. SCHEID. I would not characterize it as a problem child or worst offender. I can go through the Services. In the testimony, I said while it is too soon to know for sure, we expect the budget statements to be auditable by September 2014.

The Marine Corps is the pacesetter. They are out in front. They have already achieved a clean audit of their financial statements. The Department of the Navy follows right behind. They are best positioned or at low risk and have a mature system in place. The Army has installed probably the most comprehensive and modern automation through its ERPs, and they are trying to leverage the investments to support the audit. The Air Force is, as you indicated, still struggling, is attempting to assert audit readiness with largely legacy systems. So they are working through those legacy systems.

Where we see a great deal of risk or more risk is in what we call the fourth estate, the fourth estate being the defense agencies and activities that are not particularly in a Military Service or attached to a Military Service. There we have I think 44 different entities, and half of them have already had a clean audit at one point or another. That would be like DFAS, for example. But the others are all struggling with legacy systems and trying to achieve just the readiness.

We work with the Comptroller very closely on this. I co-chair the FIAR Board, which is the Financial Improvements Audit Readiness

Council. As I indicated, I am new to this area, but we are working with them to ensure that in particular—and this is my predecessor’s work—that the systems that support audit readiness are on track. And we have had these authorities to monitor that and track that and work on those systems for a few years and have done work with the Services to improve that.

On the audit readiness, may I add one comment to the previous discussion? You indicated \$40 billion, \$39 billion of investments across the Department, which is a huge responsibility. About \$7 billion of that are business systems that we have identified. They break down into about 1,200 individual systems.

We have instituted through the—that is, my predecessor and the office I represent or I am in now have instituted what we call the Integrated Business Framework to help bring some discipline to this business space. And we align it or arrange it through functional strategies, which each have functional owners, functions as in human resources, acquisition, and so forth. Then we subject these systems—we organize these systems into portfolios. The portfolios are reviewed annually in an investment review board.

This process has helped the team reduce redundancies, identify where there are redundancies, reduce them, identify where we should not be obligating funds. I indicated in my testimony I think we had cost avoidance of about \$1 billion through these two cycles, and we have stopped funding 60 legacy systems. Of that \$40 billion, the business systems has had increased scrutiny through this Integrated Business Framework that we have established and is getting some results. It is early days still and there is a lot of work ahead, but we are working in that direction.

I hope that, Senator, answers your question also on the FIAR readiness.

Senator AYOTTE. Yes. No, thank you. My time is up and I know we will have a chance for follow-up questions. Thank you.

Senator SHAHEEN. No. Thank you.

I would like to point out relative to the consolidation of data center discussions that in addition to the cost savings, part of that cost savings is significant energy savings, and so that is another benefit for doing the consolidation.

Senator Donnelly?

Senator DONNELLY. Thank you, Madam Chair.

Mr. Powner, we talked about 93 projects on the Dashboard. Secretary McFarland, are there goals and metrics for each of those 93 projects like month by month where we are, how we are doing, are we on target? Could I pull up a booklet and see exactly where we are in that project?

Ms. MCFARLAND. I will share this with Terry.

Of those 93, there is a certain number of them which we call major automated information systems, and for them, there are metrics. For the balance, I will turn it over to Terry.

Ms. TAKAI. Yes, sir, there are metrics for all of the projects that are on the Dashboard. We do not necessarily track month by month. We track major milestones for each one of those projects, and the frequency of the milestones is dependent upon the size of the project and when they will have met particular deliverables.

Senator DONNELLY. Mr. Powner, do you think we have sufficient metrics in place on these projects to make sure that we are on target and on time?

Mr. POWNER. I believe the Department has internal metrics. I do not think where we are at on those metrics is transparent necessarily on the Dashboard because the data is not updated.

The other thing I would add, Senator Donnelly, is that there are some MAZE projects, nine of them that we are aware of, that are not on the Dashboard. So, for instance, there is Navy common ground system. I do not see that on the Dashboard. There is an Army Tactical Mission Command program. We did a scrub because we are doing the MAZE work for this committee right now, and it will be out at the end of the month. So I think there is a fundamental question. Have we captured all the investments and then are those investments—do we actually have the right status of how they are performing? And I think the answer to both those questions is no.

Senator DONNELLY. Let me ask this. In terms of best practices—you know, I was just sitting here jotting down some names—do we ever have, for instance—and I know it is the Pentagon. I know there are concerns about security and stuff. But folks from Amazon or Google or GE or Apple or Microsoft come in and go, here is our best practices. Let us see what your best practices are.

Ms. MCFARLAND. Yes, we do. In fact, much of what we have been doing over the last couple years to understand best practices has been through the industry consortiums to understand what goes on and how to perform inside of acquisition better.

Mr. SCHEID. The Defense Science Board has been helpful in the past. They worked on the 804 report. And also the Defense Business Board is composed of CEOs, COOs, and others that get insights into these programs. They do projects and they do studies and analyses, and we benefit from that.

Senator DONNELLY. And this may sound like a little bit of an off-beat question, but that is okay. Is there a need for all of this to be focused or located at the Pentagon? I mean, would it be disadvantageous if it were spread throughout the country or that we had some computer operations, for instance, out in California or in New Hampshire or Indiana or Pennsylvania or other places?

Ms. TAKAI. Actually a very small, minute part of what we do is actually focused at the Pentagon. Our data centers are spread throughout the country, which is actually part of the challenge of getting them consolidated, quite frankly, sir, because they are at each base, post, camp, and station, and that is a bit of our challenge. And the development processes—and Ms. McFarland can speak to this—very often are not—in fact, are not at the Pentagon. They are most often near where the major focal point is as it relates to the business operation that is going to be benefiting from that system.

Senator DONNELLY. Okay.

And as we look at the systems going forward, one of the things that has been of concern is counterfeit electronic parts, electronic chips, et cetera, and I was wondering what is being done in that area.

Ms. MCFARLAND. If you are not aware, sir, we have actually a Federal acquisition regulation—

Senator DONNELLY. No. I am.

Ms. MCFARLAND. Okay. We are doing quite a bit of work in that area. I came originally from the Missile Defense Agency which really brought to bear a lot of attention on that issue. And what we are doing inside of the accountability for contractors is that they have been and will be held accountable for providing spare parts or any part that is counterfeit.

Senator DONNELLY. Okay. So there is identification on all of the parts that are going into the process.

Ms. MCFARLAND. That is the requirement.

Senator DONNELLY. Thank you, Madam Chair.

Senator SHAHEEN. Thank you, Senator Donnelly.

Assistant Secretary McFarland, I want to go back to the 804 section that I talked about, Senator Ayotte talked about, and you all have referenced because what I am interested in is to what extent the efforts that are being undertaken now with respect to trying to improve our acquisition programs build on what was done with section 804. Can you talk about the extent to which your belief—or Ms. Takai—that the reforms requested under section 804 have actually been implemented and how the current process builds on that? What was done? What was not done maybe?

Ms. MCFARLAND. Yes, ma'am. I would say about 75 to 80 percent of what the report to Congress discussed has been initiated and implemented. "Implemented" is not complete. As you are aware, the system has a slow progress, and many of the items within section 804 regard the early onset, the initiation of the program. So we have programs that did not benefit from those specific initiatives that are very important to make the products what we want them to be. And we will be continuing to do cleanup in a lot of those areas.

The programs that are coming forward I mentioned in my written testimony that I submitted, programs that have shown success, we have demonstrated that we can reduce the timelines for requirements by use of the IT Box by 45 months compared to an earlier increment. A lot of the programs are now coming forward for our review that have demonstrated that they are actually taking a very close and precise look at what size of an increment they can build that they can actually field.

One of the biggest hurdles that we had over the last few years was essentially that people did not understand the full complexity of what they had to build, particularly in business systems where all of the interfaces and the exchange are very, very large. The enterprise exceeds the boundaries of just the Defense Department. We interoperate with a lot of different agencies and activities. So when we look through the lens of what 804 put into place, I am seeing—and I am very cautiously optimistic—that those implementations will continue forward. They are very strengthened in the new DOD 5000 directive, and we are seeing products and programs come forward where we can actually review and institute them.

On the second note, the Services are also very interested in this. You have probably paid attention to the news. There is a lot of activity within the Services that recognize the challenges in IT and

they are putting their own personal focus on looking through what they have for those investments and where they are putting their people and how they construct the programs. The Air Force just stood up a new board specifically to do that. So, yes, we are putting emphasis on it. Can I say we are complete? No. We have a long way to go. The enterprise is huge.

Senator SHAHEEN. To make it more concrete for my understanding, can you describe a particular project that you think, as a result of the 804 changes, has characteristics that you are translating now as you are looking at the 5000 process and adopting some of those characteristics or guidelines?

Ms. MCFARLAND. Yes, I can. The integrated pay and personal system for the Army came forward originally with a very complex, big bang theory on how it was going to deliver capability. After we went through the process with them, they reduced that sizing of increments to be discrete elements that show a manageable and deliverable product within each of these releases. They are short time. They have very distinct parameters that they can measure and identify and have been able to control costs that way.

When I look at a program that is coming in, one of the biggest questions I ask of them when they are coming in for review—we have many different metrics that we are putting in place now related to this. One of the questions I ask is how many interfaces do you understand and what is it that your people will have to do to address the change. Much of what we do, particularly in defense business systems, is related to the people operating those pieces of gear. So if you are familiar with something that is kind of like I have been using my kitchen sink for umpteen years and I am very familiar with it and you just put something in front of me that I do not understand, it still does everything according to the written requirement, but it is not familiar. I used to reach here and now I have to reach there. That is one of the biggest pieces for the success and failure of these systems.

Another one, just from memory here. We have also rolled in on top of the section 804 the Better Buying Power initiatives. Are you familiar with those?

Senator SHAHEEN. No.

Ms. MCFARLAND. One of the things that we have asked them to take a look at inside of when they execute a program is once you have established what you think is the appropriate cost for delivering that, we build that into the independent cost estimate, but we also ask the program managers and their team to come in with what efforts they can do to take costs out of the program. So as we look at their execution, they have to show discrete efforts that demonstrate some actual activity to look at reducing costs out. It can be anything as simple as I am using a different contract type because it is more effective when I incentivize this contractor to deliver that methodology. So we have a huge effort working with our people to change the culture to make it cost-effective.

Another aspect is simply affordability. We have a lot of challenge explaining to people what affordability is. Affordability is not making it cost avoidance or savings. Affordability is understanding how much you have to spend on something and staying within that and understanding the total ownership cost of something when you de-

liver it. So even though you may wish to deliver a capability inside of IT within a certain period of time, if you cannot afford it, look to find what you can afford that is meaningful that you can deliver.

Senator SHAHEEN. And so what kind of educational development efforts go along with the kind of program implementation that you are talking about.

Ms. MCFARLAND. So I had prior to this position been the Defense Acquisition University's President, and one of the things that I did, because I had just come off of the team for Mr. Kendall and Dr. Carter, was trying to change the curriculum in the university to focus in on how do you build in cost consciousness. Oddly enough, this is much of a trip to the past. When I entered the Government service in the 1980s, we had much of what is considered today the new look at acquisition actually ongoing. It was post the Cold War, you know, how do I get money out of the system. And we were working on things that I have an excellent book on called "Design to Cost," for example. So our engineering of which I am and others were also focused on cost avoidance, and how do you look at how to construct a cost-effective system. We are building that back into our training curriculum. It is not just for those students that come through because of the mandatory certification they have to take. We actually have mission assistance teams and rapid training teams that reach out to the major systems and commands to educate them.

In addition, Dr. Carter, when he was the Under, Mr. Kendall, myself, Alan Esteves actually go out to centers of excellence and centers of mass when it comes to acquisition. So, for example, last week I was down at Pax River talking on a hot topic forum for about 2 hours with about 350 acquisition professionals going through what it is that they have to think about because it is truly critical thinking. The attitude of cost has to be thought when you are doing a very complex system. So in addition to all the demand signals we put on them for how to do acquisition, they have to also put that additional equation together.

Senator SHAHEEN. I am over my time, but since it is just Senator Ayotte and I, maybe she will not mind if I ask a follow-up question.

So given all that and the training that people are undergoing and the focus, how is it that we can have a contract like the Air Force had that is \$1 billion in and no deliverables?

Ms. MCFARLAND. Well, as you know, this is an incredible human endeavor. That program was started around 2002 and it was done during a period of time when we were just really waking up to the huge investment in IT. At that time, it was kind of the tail end of when we were thinking of acquisition through the large systems integrator where we had decided that it was more useful to put essentially the business of doing acquisition in industry's hand. In other words, we had decided that really industry could do it better.

Unfortunately, that did not work. There was also a great deal of perverse incentives in that program. If you had an opportunity to read the root cause assessment that was submitted to Senator McCain, it talks about—if you were to take the Weapons Systems Acquisition Reform Act, it talks about six parameters and a seventh called "other," and effectively it is what could go wrong on a program, and every one of them was met. Very negative.

So there was a lot of, shall we say, accountability across the entire spectrum of their program. It did not do business process re-engineering. It gave the contractor the responsibility to develop the requirements and then build to them. So in terms of how do you manage constructively and contain constructively requirements, it was completely set wrong.

Have we learned from that? Oh, yes. There is nothing more humbling than to see something like that happen and have it go on as long as it did. Have we rolled it into our business process engineering lessons? Yes. Have we rolled it into the school? Yes. Have we a long way to go? Yes.

Senator SHAHEEN. Thank you.

Senator Ayotte.

Senator AYOTTE. Thank you.

Just in following up to that, I guess I wanted to get—in hearing this, we are talking about the ECSS system, and I wanted to get your impression, Mr. Powner, having just finished this GAO report or in the draft session that we have, obviously, a draft of, just the impression of having heard about, obviously, this one system. But we know that is not the only example. And I want to just restate this is not an issue that is unique to DOD in terms of these systems, particularly with regard to IT systems. So I wanted to get any thoughts you had on this.

Mr. POWNER. I think it is great that we are building into the curriculum and we are looking at lessons learned and all those things. But this is where governance plays a factor. If you have an investment board and you have executives who are in charge of these programs—Mr. Scheid, you mentioned the Integrated Business Framework. The Integrated Business Framework is darned good. It is a portfolio-based approach and if you followed it, less programs would fail.

But someone at some high level on these boards needs to ask questions. Is the Government defining the requirements and not the contractor? Are we going with an incremental approach? Are we validating those requirements? Is the business on board? Because the business was not on board for ECSS. These are basic, fundamental questions that really do not have a whole lot to do with IT. It is more management stuff. And that is what governance is all about. What we see not only at DOD but across the Federal Government poor governance in an executive level and these program offices start doing things at this detailed level without the appropriate executive oversight. This is an executive issue. That is why we fully endorse putting the CIO picture next to each investment on the Dashboard, and if the CIO is not the appropriate person, put the appropriate person who is the right executive of that department or agency.

Senator AYOTTE. So what that speaks to me is—you know, as I understand it, in 2011, the Institute for Defense Analysis wrote a report titled “Assessment of DOD ERP Business Systems.” And one of the primary findings was really to speak to this issue of leadership, that acquisition programs require that a single accountable leader has the span of control to define, implement, and execute the end-to-end business process the IT investment is intended to support.

I think I have asked this in the larger hearing as well. For a system like the ECSS, was there one accountable leader? Was anyone held accountable for the failures? Because it seems to me that when you have these major systems and how much are saying you are responsible and then holding people accountable? Can you speak to that, Secretary McFarland, and how that culture obviously helps, I think, get better results for the taxpayers?

Ms. MCFARLAND. In terms of who and what was held accountable, obviously the contractor was one of the principal people held accountable. In terms of us, yes. We reconstructed that organization. When the program was terminated, the Air Force took it very seriously, and they are now trying to reorganize to determine how to execute a follow-on system because the ECSS's capability is still required.

So in terms of how you are setting yourselves up for the future, it was an integral part of why we made the changes. And in terms of how we are looking at changes since the 2010 implementation of 804, a lot of those obviously problematic areas were incorporated into what we are doing in terms of business process reengineering in terms of governance.

Senator AYOTTE. I wanted to follow up, Mr. Scheid, as well on the audit issue. Certainly on this issue, when you listed the Services and where they were with regard to the audit situation, as well as the 44 entities that are outside really the Services, you did have the Air Force fourth in that in terms of the Services. So how are we going to get the Air Force up to speed to be audit ready, number one?

And then second, I think it would be helpful for this committee to understand—you said there were 44. I mean, I know you know them. I do not know them. I would love to have a list of the 44 that are not in an update as to—you said half of them have actually been able to meet an audit in the past. Which ones do you feel are most at risk? Because if no one has—understanding that each Service Chief is going to have responsibility for the Services—and certainly the Secretary as a whole and DOD is responsible for these other entities. But I can understand why they would be even more vulnerable. So I think a report to us on that would be helpful for us to understand, as we look at this audit issue.

Senator SHAHEEN. I agree. Perhaps you could provide that to the subcommittee.

Mr. SCHEID. Yes. I will provide the list. Now that I am thinking about it, some of those 44 may be captured in the Washington Headquarters Services. That is that one entity that works for many offices.

Senator AYOTTE. In the Pentagon?

Mr. SCHEID. In the Pentagon, yes. Well, they are outside OSD.

Senator AYOTTE. We want the Pentagon to be able—if they are going to ask Service branches—yes. So we would like—

Mr. SCHEID. Let me provide that list. They are agencies and activities, and some of these activities are small and they are rolled up into other—for audit purposes, they are rolled up into other entities like WHS.

But an agency like DFAS is not in a Service. It is outside and it is in this fourth estate that we call it. They have been audited.

I believe the number of years is 14 years. They are largely personnel. It is salaries. In terms of meeting the audit requirements, it is relatively simple as compared to a large organization with different activities.

[The information referred to follows:]

[SUBCOMMITTEE INSERT]

Mr. SCHEID. On the status of the Air Force, I would prefer to take that for the record, if I may.

Senator AYOTTE. Sure.

[The information referred to follows:]

[SUBCOMMITTEE INSERT]

Mr. SCHEID. One, because of my lack of experience just being in the seat for a few months, and two, to make sure you are not misled in any way by something—

Senator AYOTTE. No. I appreciate it.

And I have a specific question about audits. As I understand it, the 2010 NDAA charges the Chief Management Officer of the Department, in consultation with the Comptroller, with revising a financial improvement and audit readiness plan which describes that specific actions must be taken to ensure that the financial statements of the DOD are validated and ready for audit by no later than September 30, 2017.

As I understand it, there is an argument going on right now in DOD as to whether to include valuations of property as part of the audit which is required to be completed by 2018. And though establishing the value of a company's property certainly is very critical in the private sector, as I understand the argument within the DOD right now, some are arguing that it may be less necessary to ascertain the value of property owned by DOD.

So basically the argument, as I understand it, on the other side—and I am not taking a side. I just want to get your opinion of what you think. What is your view on this debate? And how significant of an additional undertaking is it to establish the values of property? How many additional auditors does it take? And does that take us down every M-16, every rucksack? And if this requirement were lifted—and I am not taking a position one way or the other. I want us to get the best information we can to make decisions on behalf of the taxpayer. Is this something that would help you meet your audit deadlines? I just want to hear the opinions of the group on this, particularly Mr. Scheid, and obviously if Mr. Powner has any opinion, I would be happy to have him weigh in as well. Is this a debate that you are aware of?

Mr. SCHEID. No, I am not aware of it. I would be glad to get more information on it.

Senator AYOTTE. Okay.

[The information referred to follows:]

[SUBCOMMITTEE INSERT]

Mr. SCHEID. I am aware that in the audit readiness timeline that I believe has been briefed to the committee and others by Secretary Hale, that the mission critical asset's existence and the completeness audit readiness—the critical asset existence is part of this taking account of the physical properties, facilities, trucks, everything from aircraft to fire trucks and so forth.

Senator AYOTTE. Sorry to interrupt. I have had some people say to me does that mean we have to get down to every screw and every—at least as I understand this debate, there is some consternation there.

Mr. SCHEID. I am not auditor. I am not an accountant.

But there must be a limitation to that particularly in such a large organization trying to get to an audit.

Senator AYOTTE. We are not trying to ask you to do something that would be unreasonable. What we want is things that would be helpful to the taxpayer.

Mr. SCHEID. Yes. This is part of the plan. So I believe it is reasonable to expect us to deliver that account.

Now, if there is a debate in the Department, I do not want to speculate on it or contribute one way or the other to it. I would rather get you the facts it.

Senator AYOTTE. Okay. I appreciate the follow-up on that. Thank you.

Mr. POWNER. I am not aware of the issue, but I have a colleague on our financial management team. If I could take that for the record and we can get back to you on that.

Senator AYOTTE. That would be great. Thank you.

[The information referred to follows:]

[SUBCOMMITTEE INSERT]

Senator SHAHEEN. Can I just ask Secretary McFarland or Ms. Takai, are either of you aware of this issue?

Ms. MCFARLAND. No, but it is fascinating.

Senator SHAHEEN. Yes, it is.

Ms. TAKAI. No, I am not aware either.

Senator SHAHEEN. I want to go back to the issue that you raised, Ms. Takai, about the Joint Information Environment because I am not sure that I quite understand either what this idea is or what it is designed to do and how it should work. So I wonder if you could talk a little bit more about that. Is this viewed as an agency-wide, a Department-wide effort? And who is in charge of it, and how is it supposed to work?

Ms. TAKAI. Well, perhaps I can start out with just a description perhaps in a little bit more detail in terms of what it is.

The effort is really around being able to take the money that we spend today, because I think as Mr. Scheid said, out of our \$40 billion a year, a fairly large proportion of that is spent on just maintaining and upgrading our networks, our data centers, our servers that sit within those centers, as well as buying a fair amount of services from other companies, and then of course we have software purchases, which is software that basically runs the computers all the way up to the way we do email. So the line, which gets a little bit fuzzy, is it sort of falls short of, for instance, an ECSS or an equivalent system or financial system. It is really what is it that is underneath it that, number one, makes it run and, second of all, means that you can connect it. And that connection means also now not only from a computer terminal but also how do you connect it from a mobile device and some of the newer technologies coming in. So I think it is important to set that context.

The second thing is that our infrastructure is, obviously, from a multiplicative standpoint, bigger than any industry. I was talking

to some folks from AT&T the other night, and we sort of concluded that AT&T and their worldwide network was probably maybe close to the equivalent of Navy if you think about the size. And so when we talked about the number of data centers, I think we also have to recognize that we have a U.S. number but we also have a deployed force and that exacerbates the issue.

The challenge that we have with that is multiple. Number one, today we have what I would call fairly loose standards. In other words, my office puts out standards, but the way that the technologies are implemented can vary significantly not only from Service to Service, but the other thing that we have done is, because of our size, we are very decentralized. So each location will actually set up their own computers. They will set up their own firewalls and so on. And so all of that, I think back to Senator Ayotte's point, is a part of what can certainly lead to redundancy. It can lead to competing technologies, and certainly that has multiple ramifications.

Let me just say what the ramifications are. First of all, it means that when we try to defend our networks, that means that we have to see when there is an adversary on our network, and we have to be able to trace back and see where that adversary has gone. The way we are set up right now, you have to understand all of our networks to be able to actually do that, which of course is an impossible task. And I think you have heard General Alexander say, given the way we are operating today, that is just impossible.

The second thing is we have different ways of operating our networks. So we have some big operation centers, some small operation centers, and the same is true of help desks and so on, which again is redundancy and it also makes it very difficult to run.

So the effort around Joint Information Environment, as you mentioned, is not what we would call a program of record because, again, we are not suggesting that we need new money for this. We are suggesting that we need to take the money that we spend today and use that money to drive towards this standardization, this communization, this ability to eliminate the redundancy and to operate in a single way.

The overall responsibility for that program is mine. The Secretary has designated out that I am responsible for working with not only the Services but all of the component organizations in order for them to implement the Joint Information Environment. As you could well imagine, that is a daunting and challenging task. We are part way through that. The data center consolidation is one of our efforts in doing that. Our defense enterprise email that you may have heard is another area that we are focused on. But we have a suite of things in terms of the way we are doing some of our fairly detailed network configurations and so on that we are in the process of specifying and rolling out.

The Services have just delivered to me, in fact, at the end of February their implementation plan because the challenge is—it is just like all of the issues we have been talking about here. I can lay out ground rules, but clearly each of the Services has to have a plan for how they are going to implement because each of them are in different places in terms of how much they have standardized.

So those plans have come back in and we are currently in the process of bringing those together.

We also are expecting from all of our components plans to be completed at the end of March. So what we are going to be doing is to actually look at how we are going to operate that.

Now, let me give you a couple of concrete examples. We started with a concept of operations in Europe because Europe actually between our EUCOM and AFRICOM, as well as Navy support, had actually started down a path of doing consolidation. Through that, we have been able to bring up one single enterprise operation center, and they are in the process of shutting down—I am sorry. I do not have the exact number—some number of centers, which of course helps Cyber Command because they will be able to work through that operation center, as well as we have a plan for which of the data centers in Europe will be closing as part of our data centers and then how it will be consolidating.

Our second geographic area is Pacific Command. Admiral Locklear has asked to be the second area. So we have a set of workshops that are scheduled for the end of March/early April that will, number one, take advantage of the work that they have already started but make sure that the work in PACOM is aligned with the work that is happening in Europe.

The complexity is that in PACOM we have every Service, and each Service has their own way of doing networks and data centers, and so they are going to come together in PACOM to actually come together on how they will do a joint implementation.

So the real complexity that we have here is that the funding sources come in from the Services. They each have a specific way of doing things. But the real benefit, in many ways, of the Joint Information Environment, which is why it is called “joint,” is actually in the combatant commanders who have to deal with the technologies coming in from each of the Services, and through the standardization, the concept is to ensure that we are operating in a much more uniform way than we are today.

It is a huge effort. I do not want to minimize it at all. Major corporations that have done this—and many have. I can certainly site many in Silicon Valley. Hewlett Packard has a major effort in this area. Oracle internally. IBM in fact several years ago just went through the same kind of consolidation and bringing together. I think, as you know, my background is State government, and State government is challenged as well, as you know, within their internal operations—

Senator SHAHEEN. Yes. We have experienced that.

Ms. TAKAI.—with every agency having their own. So if you think about what were the challenges at the State government level, which I know very well from my Michigan and California days, then you blow that up—my information technology spend in California was about \$5 million, and I had about 110 CIOs that I was sort of trying to bring together. Well, multiply that by our numbers here. I think you can see the size. But I think to Senator Ayotte’s point, you can also see the opportunity if we can continue to move this forward.

And I really would come back to the comments that were made by GAO. This is not going to be a perfect process. It is not going

to be sort of a march that looks really exact and pretty, but it is, to some extent, to his point we are putting pressure on the organization to get better.

And I will make one last point. If we cannot get to some level of operating in a much more standardized fashion, it makes it so much harder, if not impossible, for us to move to new technologies like the cloud technology. I have often said if I replace all of my disparate data centers with disparate clouds, I am actually not any farther ahead. I am actually in some ways increasing my complexity because now data centers that I own and run today—I will either be using a commercial cloud capability or a different cloud capability. So it is really important that we get the standardization to happen so that then, to the point I think that Mr. Scheid made, we can move our business systems into cloud technologies. We can get the efficiencies, but we can also ensure that we have security in those solutions so that, again, we do not have to be concerned about not only the fact that we are getting more efficient but we do not want to do that at the sacrifice of security.

Senator SHAHEEN. That is helpful. Let me see if I can restate what I understand you to have said about the JIE now.

It is an effort to standardize IT systems throughout the Department of Defense so that they are more efficient and better coordinated. Is that essentially what it is?

Ms. TAKAI. That is correct.

Senator SHAHEEN. And it is under your portfolio.

Ms. TAKAI. That is correct.

Senator SHAHEEN. You talked about the consolidation. Is there a list of initiatives as part of that that you hope to accomplish and a timetable to do that?

Ms. TAKAI. Yes, ma'am.

Senator SHAHEEN. And different people in charge of that. And you said the budget for all of this will come through the various Service branches.

Ms. TAKAI. That is correct.

Senator SHAHEEN. So I assume that they have bought into this effort either directly or indirectly.

Ms. TAKAI. We are working on that now, ma'am.

Senator SHAHEEN. As you look in the short term, say, over the next 2 years and 5 years, 10 years, what are you hoping to accomplish within the next 2 years, say, and where do you hope to be 5 years from now?

Ms. TAKAI. Well, in the next 2 years, we are intending to implement two or three areas in the network, and certainly we can provide more detail. I do not want to get too technical in this discussion. But it is really to standardize the networks and certain areas of the networks. So that is one of the things in the 2-year period.

We will have a plan to finish on defense enterprise email.

Senator SHAHEEN. Thank you very much, Senator Ayotte.

Senator AYOTTE. Thank you for working so hard on these issues. Thank you.

Ms. TAKAI. Thank you.

So those are a couple things in the 2-year period.

In the 5-year period, I think as we mentioned, we are projected to close over 800 additional data centers by 2021. Actually the rest

of the figures that you have asked for are what I am expecting to get out of these implementation plans because I have asked each Service to come in. And what I have to do is I have to take each Service's plan and then lay it out by geographic area so that I do not have conflicts between that. So I think once I have all the implementation plans, I will have a better ability to tell you when, but I certainly can share with your staff today what our target numbers are for the categories that we are looking at. We have that and we are very happy to share that with you.

Senator SHAHEEN. And how is this effort integrated with the IT Dashboard and the work that OMB and GAO are tracking?

Mr. POWNER. Well, clearly this effort is integrated with the data center consolidation effort. I think that is one of the big parts of JIE. Again, just to reiterate, I think DOD has gotten off to a great start looking at data center consolidation, but again, it is just really important that we track those savings because they have already had significant savings to date. In some of the centers that I looked at that have been closed, I mean, there is some good stuff going on where you have centers that had 450 servers and you shut down 440 of them, all but 10. I mean, there are several stories like that. So that is where we had unused capacity.

And I will say this. DOD—when we do ask them what is your average server utilization, they can answer the question. Many agencies cannot. And frankly, their average server utilization is higher than most, and they got the most savings. Now, I know they are big, but there is a good news story here on data center consolidation. So that is the one area on legacy spending I think needs the most focus and continued focus.

Senator SHAHEEN. Good. Well, that is encouraging, and it is a message that probably we should do a better job of trying to get out.

I think one of the things that has been hard, certainly for me and I think it is true of some other Members of the Senate and Congress to understand is why we have got duplicate systems being built within the Air Force, the Army. And I appreciate that some of that is history and tradition, but I think given the resource challenges that we are facing in the future, the effort to be more efficient with those systems is very important. And I very much appreciate what you all are doing to accomplish that and hope that we can continue to help track those efforts so that we are better informed and also so that we can look at how we can be helpful in that effort.

I think given that we are hoping to be out by 4:30 p.m., the one area that I would like to ask about has to do with the House passing the Federal Information Technology Acquisition Reform Act (FITARA) because it is legislation that is designed to address some of the IT challenges that we are facing in the Federal Government. And I wonder if you all could speak to what is in the FITARA legislation. It is my understanding that the Department already performs many of the requirements that are in that legislation and that we already have a single Department CIO within DOD and whether this is legislation that would be helpful in the efforts to address the IT challenges that you are facing at DOD or whether you see it as redundant to what is already going on.

Ms. TAKAI. Yes, ma'am, if I could speak to that. First of all, we certainly applaud the legislation from the standpoint of intent. I think again to the comments that Mr. Powner made, it is important to have transparency. It is important to have visibility even for us as CIOs in order to be able to better manage the overall expenditures. Again, we want to make sure that the intent of the bill, we think, is very good.

Unfortunately, I think a couple of things. It looks to try to manage that by virtue of additional oversight. And I think what you heard from my colleagues and I today—we really feel very strongly that it is in the processes that are implemented and it is in the measurements of how we are actually managing the process as opposed to an additional oversight. Many of the areas of oversight that were suggested in the bill are actually things that we report to OMB on today, number one, and so additional reporting I think is a concern.

The second thing is also many of the items that were in that bill are actually the things that the Secretary has tasked us out to do already in his direction that Mr. Scheid spoke of in his reorganization effort. And so, obviously, our concern is that if in fact those reporting requirements do not fit, then we are going to be—we could be in a very difficult situation of an oversight from the OMB Office of CIO, oversight as a result of this bill, and then oversight as it relates to the way we are fitting into what the Secretary has asked us to do.

So we are, again, quite concerned about more the implementation than the intent. We have been mentioning to your staff there are some areas where we believe that we could move forward with the intent, but do it in a little different way than the level of oversight that is suggested in the bill.

Senator SHAHEEN. Mr. Powner, do you share that view of how the House-passed legislation might affect DOD?

Mr. POWNER. Yes. I think you need to be careful on the reporting. I agree with that because we want to get into good, solid management and not just reports. There are aspects of the bill that are very solid, data center consolidation. There are separate bills on data center consolidation. The Dashboard is in there in a small way. Moving to cloud, encouraging the movement to cloud. I think the CIO authority thing is a big issue because CIOs do not have the appropriate authority across the Federal Government, and there is a fundamental question do you grant them authority by giving them budget authority, or do you make the CIOs earn it through having certain responsibilities associated like with the Dashboard and the like. And that was the intent of the Dashboard. If we get CIOs more engaged on all these major investments, they will be even more of a player at the table on the management team.

So, again, I think there are aspects of that bill that are very solid, and I think the question on oversight is—here is, basically to cut right to the chase, what happened. A lot of things that are in that bill are exactly what Ms. Takai is saying you are already doing because OMB put in place policies to do that. There is a fundamental question of whether OMB is doing the appropriate oversight of those policies. We have some issues with that. So I think

Congress is saying, well, if OMB is not going to oversee it, then we are going to oversee it.

So bottom line on all this, let us make sure that we better manage IT acquisitions and have the right transparency and oversight, whether it is Dashboard or similar mechanism, and let us manage the inefficiencies out of the legacy bucket because DOD spends \$25 billion on legacy systems out of an \$80 billion spend. That is huge. And you can see here that there are a lot of inefficiencies that we can tackle through duplicate systems and data center consolidation. So that intent of the bill is spot on to try to tackle those issues. How you go about doing it, there are many ways of doing it. But let us not lose sight of the big things there.

Senator SHAHEEN. I appreciate the comments that everybody has made. Is the reason to pass something like to address changes, administrative changes that are going happen when we have a new Secretary of Defense, when we have a new CIO, when we have new leadership at the Department, at GAO, and OMB? Is there a concern that the efforts that are underway now will change direction, will not go to completion? Is that something we should be concerned about as we are thinking about how to fully implement some of these efforts?

Ms. TAKAI. Well, I will speak for DOD, and certainly the other agencies are in a different situation. But it is really not a concern at DOD because the functions that the Secretary has tasked me out for are actually incorporated in my ongoing charter and the charter for my organization. So the next person who comes into the position will start with a set of responsibilities. And so I think that there is a continuity from there.

I will, though, make the comment—and I do want to follow up on an item that Mr. Powner spoke of and I think you spoke of as well—and that is the strategic relationship between the Chief Information Officer and the head of the agency. Mr. Powner spoke about the importance of not only the CIO ownership but also of the ownership of senior executives in the organization. And so I think that is something that is important to reinforce in anything that we are looking at because I think we have seen with Clinger-Cohen that giving the CIO responsibility is great, but it needs to have that relationship.

And certainly I can speak for myself that Secretary Hagel has fully endorsed the Joint Information Environment. He has issued that out as part of his tasking to us in terms of what we are supposed to do. And that kind of involvement, back to your question about getting everyone signed up, quite frankly without that, it would be potentially close to impossible, but having his endorsement and his involvement in it, as well as our Assistant Deputy Secretary and our former Deputy Secretary, has been really pivotal for us. So I think that that is an important part, and I think Mr. Powner spoke of that. But I would not want to lose that in this overall dialogue. It is really very critical.

Senator SHAHEEN. Well, thank you all very much. I very much appreciate your testimony and look forward to continuing to work with you as you make these changes. And thank you very much, Mr. Powner, for your insights.

We will keep the record of this hearing open until close of business on Friday for any other questions.
The hearing is adjourned.
[Whereupon, at 4:21 p.m., the subcommittee adjourned.]