AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

S. Hrg. 110–409

# HIGH-RISK INFORMATION TECHNOLOGY PROJECTS: IS POOR MANAGEMENT LEADING TO BILLIONS IN WASTE?

## HEARING

BEFORE THE

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

OF THE

COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

SEPTEMBER 20, 2007

Available via http://www.access.gpo.gov/congress/senate

Printed for the use of the Committee on Homeland Security and Governmental Affairs

U.S. GOVERNMENT PRINTING OFFICE

38–844 PDF WASHINGTON : 2008

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

## COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS

JOSEPH I. LIEBERMAN, Connecticut, *Chairman*

CARL LEVIN, Michigan
DANIEL K. AKAKA, Hawaii
THOMAS R. CARPER, Delaware
MARK L. PRYOR, Arkansas
MARY L. LANDRIEU, Louisiana
BARACK OBAMA, Illinois
CLAIRE McCASKILL, Missouri
JON TESTER, Montana

SUSAN M. COLLINS, Maine
TED STEVENS, Alaska
GEORGE V. VOINOVICH, Ohio
NORM COLEMAN, Minnesota
TOM COBURN, Oklahoma
PETE V. DOMENICI, New Mexico
JOHN WARNER, Virginia
JOHN E. SUNUNU, New Hampshire

MICHAEL L. ALEXANDER, *Staff Director*
BRANDON L. MILHORN, *Minority Staff Director and Chief Counsel*
TRINA DRIESSNACK TYRER, *Chief Clerk*

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

THOMAS R. CARPER, Delaware, *Chairman*

CARL LEVIN, Michigan
DANIEL K. AKAKA, Hawaii
BARACK OBAMA, Illinois
CLAIRE McCASKILL, Missouri
JON TESTER, Montana

TOM COBURN, Oklahoma
TED STEVENS, Alaska
GEORGE V. VOINOVICH, Ohio
PETE V. DOMENICI, New Mexico
JOHN E. SUNUNU, New Hampshire

JOHN KILVINGTON, *Staff Director*
KATY FRENCH, *Minority Staff Director*
LIZ SCRANTON, *Chief Clerk*

# CONTENTS


| | Page |
|---|---|
| Opening statements: | |
| Senator Carper | 1 |
| Senator Coburn | 4 |
| Senator Akaka | 5 |


## WITNESSES

### THURSDAY, SEPTEMBER 20, 2007


| | |
|---|---|
| Karen Evans, Administrator, Electronic Government and Information Technology, Office of Management and Budget | 7 |
| David A. Powner, Director, Information Technology Management Issues, U.S. Government Accountability Office | 8 |
| Barry C. West, Chief Information Officer, U.S. Department of Commerce | 26 |
| Daniel G. Mintz, Chief Information Officer, U.S. Department of Transportation | 28 |
| Michael D. Duffy, Deputy Assistant Secretary for Information Systems and Chief Information Officer, U.S. Department of the Treasury | 29 |
| Scott Charbo, Chief Information Officer, U.S. Department of Homeland Security | 30 |
| Paul A. Brinkley, Deputy Under Secretary for Business Transformation, U.S. Department of Defense | 31 |


### ALPHABETICAL LIST OF WITNESSES


| | |
|---|---|
| Brinkley, Paul A.: | |
| Testimony | 31 |
| Prepared statement | 116 |
| Charbo, Scott: | |
| Testimony | 30 |
| Prepared statement | 110 |
| Duffy, Michael D.: | |
| Testimony | 29 |
| Prepared statement | 108 |
| Evans, Karen: | |
| Testimony | 7 |
| Prepared statement | 43 |
| Mintz, Daniel G.: | |
| Testimony | 28 |
| Prepared statement | 97 |
| Powner, David A.: | |
| Testimony | 8 |
| Prepared statement | 47 |
| West, Barry C.: | |
| Testimony | 26 |
| Prepared statement | 81 |


## APPENDIX


| | |
|---|---|
| Chart entitled "Figure 3: Reported Performance Shortfalls of 126 Projects (as of June 2007)" | 124 |
| Chart entitled "Poorly Planned and Poorly Performing IT Projects (as of June 2007)" | 125 |
| Chart submitted by Senator Coburn entitled "Percentage of Projects Rebaselined—By Agency" | 126 |
| Chart submitted by Senator Coburn entitled "Total Projects Re-baselined" | 127 |

# HIGH-RISK INFORMATION TECHNOLOGY PROJECTS: IS POOR MANAGEMENT LEADING TO BILLIONS IN WASTE?

**THURSDAY, SEPTEMBER 20, 2007**

U.S. SENATE,
SUBCOMMITTEE ON FEDERAL FINANCIAL MANAGEMENT,
GOVERNMENT INFORMATION, FEDERAL SERVICES,
AND INTERNATIONAL SECURITY,
OF THE COMMITTEE ON HOMELAND SECURITY
AND GOVERNMENTAL AFFAIRS,
*Washington, DC.*

The Subcommittee met, pursuant to notice, at 2:31 p.m., in room SD–342, Dirksen Senate Office Building, Hon. Thomas R. Carper, Chairman of the Subcommittee, presiding.

Present: Senators Carper, Akaka, and Coburn.

## OPENING STATEMENT OF SENATOR CARPER

Senator CARPER. The Subcommittee will come to order. I want to welcome all of our witnesses. Thank you for joining us today and for our next panel as well.

We are here today, in large part because of the interest that our Chairman from our last session of Congress, Senator Coburn, had expressed and demonstrated in the issue of IT projects. We had a hearing in the last Congress, and this is really a follow-up to that, and I thank him for his leadership and for getting us to focus on this. And I am sure he will have a good deal more to say, but we are here in no small part because of the effort that he led the last 2 years.

In my role as governor, we used to work on IT projects, and we found them in some cases very difficult to manage. They often turned out to be expensive. We launched those projects because we were trying to find ways to provide better service to the people that we served, represented, and we were trying to save taxpayers some money, and we tried to do it by harnessing information technology for the delivery of better service at a lower cost.

Usually we succeeded. There were a couple of times we did not, and we are not very proud of those failures. So I know what it is like to have tried this stuff and to have been successful and not to have been successful. And the idea of having someone looking over our shoulders—in this case, the Federal Government looking over our shoulders, not only OMB and GAO, but also us on this Subcommittee—is, I think, a good thing. We want to exercise our oversight in a constructive way, to always let our agencies know that

we are trying to provide better service, trying to do it in a better way and save the taxpayers some money, to know that we want to make sure that they are on the ball, that they are getting the job done, and that they do not lose track of that.

We appreciate our witnesses coming before us today, taking your time to participate in this hearing. This is the second hearing, as I said, of this Subcommittee on the issue of poorly planned and underperforming IT investments. This hearing will focus on how the Office of Management and Budget and Federal agencies will ensure the success of potentially $10, $10.5 billion of at-risk information technology projects.

Investing in the Federal Government's information technology infrastructure is crucial to the efficient operation of Federal programs and in many cases to our national security. Projects such as the Department of Homeland Security's Secure Border Initiative technology program, or SBInet, as it is commonly referred to, is expected to provide our border agents real-time information on attempted border crossings by illegal immigrants or by terrorists or by thieves. Investments such as this are too important to our Nation to be allowed to fail due to a lack of planning or a lack of management oversight.

But there are times when maybe we might want to cut our losses and end a failing project before we waste even more hard-earned taxpayer dollars. I know from experience it is hard to make those decisions, but sometimes it is a decision we must make. We owe it to taxpayers to pull the plug in some cases or go back to the drawing board when a project is continually over budget and is just not delivering what we had expected it to deliver.

Last year alone, the Federal Government spent some $64 billion on 857 information technology investments. Spending this year will be just as high, I am told. The Federal Government is planning to invest approximately another $65 billion on some 840 IT projects.

Managing IT investments can be a difficult process, as we know. Cost overruns and delays can be expected from time to time. Sometimes a project that sounded like a good idea at one point just might not pan out. This makes sound oversight important, and that is what we are here for.

As our witnesses are aware, the Clinger-Cohen Act requires OMB to report to Congress on the net program performance benefits achieved as a result of agencies' IT investments. OMB uses documents provided by Federal agencies to compile two lists that identify the most at-risk IT projects. Aptly named the "Management Watch List" on the one hand and the "High-Risk List" on the other hand, these lists highlight projects that have been poorly planned or are underperforming.

However, as GAO is going to testify here today, the OMB may not be receiving the information required to properly exercise their oversight duty. As we found out at our last hearing, much of the documentation that agencies submit to OMB, such as the Exhibit 300s, are not properly supported or contain unreliable cost estimates. Moreover, the high-risk list is potentially understated as agencies are only required to report their own projects based on OMB criteria.

This year, according to GAO, 227 IT projects totaling an estimated $10.4 billion in expenditures for fiscal year 2008 have been identified as being poorly planned, poorly performing, or, in some cases, both. Most alarming are the 33 projects totaling $4.1 billion identified simultaneously as both poorly planned and poorly performing, and that is just not acceptable.

As you can see, we have got a couple of charts over here. I am just going to put up one of the charts.[1] Figure 3 shows the breakdown by the number of projects and billions of dollars between the high-risk list, the Management Watch List, and the projects that are listed because they are both poorly planned and underperforming.

The next chart enables us to examine the high-risk list a little more closely, and it tells us why these projects run into trouble.[2] How many do we have here?

Senator COBURN. One hundred eighty six.

Senator CARPER. We have 186. We have about 101 running into trouble because of cost and schedule variance within 10 percent. They are not staying within that 10 percent. We have another 33 because we do not have qualified project managers. And then there are about 12 more that we can attribute to avoiding duplication.

Now, OMB, to their credit, has made improvements in identifying and overseeing at-risk projects. Following last September's hearing, OMB released the Management Watch List, requiring agencies to publish their Exhibit 300s on their website. And, further, OMB has improved agencies' self-identification of high-risk projects, resulting in an increase in the number of projects on the high-risk list. However, we need to do more, and as GAO will testify today, questions still remain as to whether all high-risk projects are properly identified and tracked by senior management at both OMB and at the individual agencies themselves. Moreover, OMB has not revealed to Congress the specific reasons why projects are on the Management Watch List, leaving us unable to track progress, recognize trends, or to examine underlying causes or governmentwide issues.

I look forward to working with our witnesses today, as well, along with my Ranking Member, Senator Coburn, and our other colleagues on this Subcommittee, in order to assure that proper oversight is in place. The American taxpayers demand that we be good stewards of their money, and I know everyone in this room wants to see that become a reality. We have a responsibility, really, to ensure that IT investments are managed properly, appropriately at every phase of development. Again, that is what we are here to do, to try to ensure it happens more often than not.

Again, I would say to Senator Coburn thanks very much for providing the inspiration and the leadership on this issue in the last Congress, and I look forward to working with you on it this time as well.

---

[1] The chart submitted by Senator Carper appears in the Appendix on page 124.
[2] The chart submitted by Senator Carper appears in the Appendix on page 125.

**OPENING STATEMENT OF SENATOR COBURN**

Senator COBURN. Thank you, Senator Carper. And welcome. You are familiar faces, being in front of this Subcommittee. I think it is important that we stay informed on what is happening. I appreciate very much what OMB has done in terms of making information more transparent.

I have a lot of concern. Please put up those two charts.[1]

I think you are moving in the right direction. I am very worried that we have a lot of dollars at risk because we are not moving fast enough and effectively enough.

These two slides, the first thing that bothers me is we have over 90 percent of the IT projects at the Department of Veterans Affairs being rebaselined. Now, that has got to be a metric that tells us we have got real problems with buying IT projects at the VA. What rebaselining is, for everybody here, is that we are going to reset, so we are going to hide the true cost and the failures of the programs in terms of buying. The average is 19 percent in the government, and you can see all those to the left, which is about 10 or 11—Veterans Affairs, Department of Health and Human Services, Department of the Treasury, Department of Defense, Department of Labor, and USAID are all above 30 percent of their projects get rebaselined. Well, "rebaselined" is another way of saying we do not want everybody to know what the real cost was, or we do not want everybody to know that we inadequately prepared when we started out on this project. And so to me that is a very concerning figure. Anywhere in the private sector, if you had 90 percent of your projects needing to be rebaselined, we would fire the people who are responsible for the IT projects, and I would tell you probably if you had 30 percent in the private sector. I can understand because there are a lot of unknowns in terms of when we contract that.

Then this other slide just shows the total number of projects rebaselined by Department, and you can see HHS and Department of Transportation and Department of the Treasury have a significant number, but the dollar amounts are not as great.[2]

So I am looking forward to our testimony today. I am worried that we are still—this is a large amount of money, $65 billion. It is bigger than the total GDP of 100 countries out there, and yet we seem to still be having some troubles managing it.

The other thing that I have concern with is we have cost-plus contracting rather than contracting where here is what we want, you give us a bid, and you deliver, and then let's hold you accountable for delivering. And I know that is an oversimplification. I know that does not apply in every instance, especially in defense and some of the other security issues. But in the private sector, there is not much in terms of cost-plus bidding for some of these IT contracts. There is a total bid, and then their feet are held to the fire to accomplish the goal at a fixed price.

And so I look forward to hearing from our witnesses. I thank you both for being here, thank you for the great work the GAO does,

[1] The first chart submitted by Senator Coburn appears in the Appendix on page 126.
[1] The second chart submitted by Senator Coburn appears in the Appendix on page 127.

and I thank you for the responsiveness that OMB has had, and I look forward to continued responsiveness from you.

Thank you, Mr. Chairman.

Senator CARPER. Thank you, Senator. Senator Akaka, you are up. Thanks so much for being here.

**OPENING STATEMENT OF SENATOR AKAKA**

Senator AKAKA. Thank you, Mr. Chairman. I want to welcome our witnesses here to this hearing.

Information technology is fundamental to the day-to-day functioning of our government, from managing benefits at the Department of Veterans Affairs to helping first responders at the Department of Homeland Security. According to the Administration's fiscal year 2008 budget request—and this was mentioned by Senator Coburn—about $65 billion is spent on over 6,500 IT projects government-wide. This is more than the entire budget of the Department of Homeland Security. These massive investments must be carefully planned and managed to ensure the government runs effectively and that the taxpayers' dollars are not squandered.

Oversight of these projects is very difficult. There are few reliable measures now available to assess the performance and management of IT investments. While the Office of Management and Budget maintains a high-risk list and an at-risk list, additional performance data on IT projects is difficult to come by. Without this essential information, neither OMB nor Congress can adequately assess the value of these projects. Additional information is also needed to fully understand the risks associated with a project. Agencies should not be overly risk averse, but they can minimize risk through better management.

Agencies often rely on contractors to provide IT goods and services, making oversight even more difficult. As my Subcommittee on Oversight of Government Management has heard from several witnesses, contract oversight is increasingly difficult with an overburdened Federal acquisition workforce. Agencies need to commit to planning for their own specific IT needs rather than relying on contractors to make the decisions for them.

There needs to be greater emphasis on utilizing off-the-shelf products or products already in use by the government. Testimony by DHS' Chief Financial Officer at a hearing in July underscored this point when DHS decided to consolidate several existing financial management systems rather than developing a new one from scratch. It is my hope that the Office of Management and Budget will take a more active leadership role in providing guidance and so assistance that agencies avoid unwarranted or duplicative IT projects. At the same time, OMB must not shy away from using their budgetary authority to make course corrections or halt failing projects when necessary.

I want to emphasize the critical role played by individual agency Chief Information Officers (CIOs), who are critical to IT planning and management. The Federal Government must recruit CIOs who have experience and expertise in the IT field in addition to strong management skills. Unfortunately, according to a 2004 GAO report, retaining CIOs is a challenge. Past and current CIOs admitted that they should be in place for at least 3 to 5 years to be effec-

tive, though the average tenure was only 2 years. Agencies must confront the challenge of maintaining experienced CIOs despite fierce competition with the often more lucrative private sector. While cutting-edge IT will always be a risky investment, costly problems can be avoided through better management.

Again, Mr. Chairman, I want to thank you for holding this hearing and for your and Senator Coburn's continued attention and dedication to this important issue. Thank you very much.

Senator CARPER. You bet, and thank you very much for your statement. Thanks a lot for being here and for working with us on this obligation.

We have two panels. I am just going to introduce our first two witnesses, if I may, and we will introduce the others when we go to the second panel. I think we are going to have a vote that starts at about 2:55, and what we will do is probably—I would like to finish the testimony from our first panel, and we will run off and vote, come back, and then we will do questions, and then bring the second panel on. But I expect we will have a couple of other interruptions later this afternoon.

Let me start, if I could, with Karen Evans. Ms. Evans is the Administrator of the Office of Electronic Government and Information Technology at the Office of Management and Budget. In this role, she oversees the implementation of information technology throughout the Federal Government, including advising the Director on the performance of IT investments. Prior to becoming administrator, Ms. Evans was the Chief Information Officer for the Department of Energy—is that right?

Ms. EVANS. Yes, sir.

Senator CARPER. As well as Vice Chair of the Federal Chief Information Officers Council. As Vice Chair, she coordinated the council's efforts in developing Federal IT programs and in improving agency information resource practices. She has a bachelor's degree in chemistry and a master's in business administration from the University of Delaware—all right, from West Virginia, West Virginia University. And as a native of West Virginia, the only native-born West Virginian in the U.S. Senate, welcome, Ms. Evans.

David Powner is Director of GAO's Information Technology team. He is currently responsible for a large segment of GAO's information technology work, including system development, IT investment management, health IT, and cyber critical infrastructure protection reviews. In the private sector, he has held several executive-level positions in the telecommunications industry. He graduated from the University of Denver with a degree in business administration, as well as Harvard University's John F. Kennedy School of Government's Senior Executive Fellows Program.

I am going to ask you to keep your testimony close to 5 minutes. If you run a few minutes over, we will let that go. But, if you will, I am going to recognize Ms. Evans first, and when she is finished, Mr. Powner, we will ask you to follow right on.

Ms. Evans, you are recognized, and the entire statements from both of you will be entered into the record, and we will ask you just to summarize. Thanks.

**TESTIMONY OF KAREN EVANS,[1] ADMINISTRATOR, ELECTRONIC GOVERNMENT AND INFORMATION TECHNOLOGY, OFFICE OF MANAGEMENT AND BUDGET**

Ms. EVANS. Good afternoon, Mr. Chairman and Members of the Subcommittee. My remarks will focus on the Administration's strategy and progress in tracking, analyzing, and evaluating the Federal Government's information technology investments.

Each quarter agencies receive a scorecard about their progress and status in achieving governmentwide goals under the President's Management Agenda. OMB analyzes information provided on business cases when evaluating agencies' activities pertaining to the Electronic Government component of the scorecard. We deliberately included a criterion for "acceptable business cases" to emphasize the necessity in management. It is just one of a number of the components agencies must satisfy to get to green (or yellow) for the scorecard, and the agencies' scorecards are posted on a quarterly at results.gov.

The information included about each business case ultimately helps OMB and the agencies ensure effectively planned IT investments and improved portfolio management. Business cases reflecting one or more planning weaknesses are placed on what we call the "Management Watch List" and are targeted for follow-up.

I would also like to describe another indicator, the high-risk list, which is used to analyze and evaluate actual project execution and performance. The objective of our analysis is to manage the risk each quarter associated with the execution of the planned actions with the IT project to ensure and achieve the intended outcomes. Each quarter agencies evaluate and report to us on the performance of the high-risk projects. These projects are considered "high-risk," requiring special attention from the highest levels of the agency management and oversight authorities due to size, complexity and/or nature of the risk of the project, but they are not necessarily at-risk. For example, a successfully performing project may still be classified high risk due to the exceptionally high costs and/or complexity of the project.

Oversight authorities and agency management must have tangible data on the performance of the projects at least quarterly to better ensure improvement in execution and performance. Agency managers and oversight authorities should know within 90 days if a project is not performing well. It is, therefore, a collaborative effort to manage project risk and avoid problems or to catch them early should they occur before the taxpayers' dollars are wasted. This approach is separate and unique from what we do on the Management Watch List since it presents the oversight authorities about information in a differing focus and timing and expected results. It is not designed to replace the pre-existing oversight and internal agency processes but, rather, to supplement and complement them.

This concludes my initial remarks on our strategy and our progress to date in analyzing and tracking, and the results have been included in my written statement. I would be glad to take questions when it is appropriate.

---

[1] The prepared statement of Ms. Evans appears in the Appendix on page 43.

Senator CARPER. Thanks, Ms. Evans. We can reserve your 2 minutes, if you want.

Ms. EVANS. No. That is OK.

Senator CARPER. All right. Mr. Powner, welcome. Thank you for joining us and for your work.

**TESTIMONY OF DAVID A. POWNER,[1] DIRECTOR, INFORMATION TECHNOLOGY MANAGEMENT ISSUES, U.S. GOVERNMENT ACCOUNTABILITY OFFICE**

Mr. POWNER. Thank you. Chairman Carper, Dr. Coburn, Senator Akaka, we appreciate the opportunity to testify this afternoon on poorly planned and performing Federal IT projects.

Last September, we testified before this Subcommittee that $10 billion in Federal IT spending was at risk of being wasted, that this figure was understated, and that OMB and agencies could do more to oversee these technology investments. The good news is that OMB has stepped up its efforts and there is more accurate reporting of troubled projects due to your oversight. However, we still have tens of billions of dollars at risk, and additional efforts are needed to better manage these technology investments.

This afternoon, I have three points to make:

First, over 200 IT projects totaling more than $10 billion are still not appropriately planned for or managed.

Second, OMB's efforts have resulted in more accurate reporting and oversight of troubled projects.

And, third, despite progress, the $10 billion figure is still understated, and additional oversight is needed from both OMB and agency CIOs.

Expanding on each of these, first, as of July of this year, nearly 140 projects totaling $8.6 billion were on the Management Watch List, and nearly 125 projects totaling $6 billion were being reported as high-risk projects with shortfalls. Common to both lists, as your chart shows here,[2] are more than 30 projects totaling more than $4 billion, meaning that these projects are both poorly planned and poorly performing. For example, DHS' Secure Border Initiative project is on both lists.

Second, OMB has initiated several efforts to improve the reporting and oversight of troubled projects. Specifically, the number of reported projects on the Management Watch List increased from last year, as did the number of high-risk projects with shortfalls. For example, last year when we testified before this Subcommittee, we reported that 70 high-risk projects totaling $2 billion had performance shortfalls at that time. We also identified several projects that clearly should have been included on the list and were not. Since then, the number of high-risk projects with performance shortfalls has nearly doubled, and the projects we identified are now included. This is due in part to OMB working with agencies to ensure more consistent application of the high-risk criteria. In addition, since last September, OMB publicly releases on a quarterly basis aggregate lists of Management Watch List and high-risk projects by agency.

---

[1] The prepared statement of Mr. Powner appears in the Appendix on page 47.

[2] The chart referred to appears in the Appendix on page 125.

Despite these positive steps, agency Inspectors General continue to report issues with the accuracy and reliability of the Exhibit 300s, which means the number of projects on the Management Watch List is still somewhat inaccurate and understated. We also remain skeptical whether all high-risk projects with shortfalls are being reported by agencies. For example, although DOD accounts for nearly half of the $65 billion in Federal IT expenditures, it only reports three projects that collectively total less than $1 million with having shortfalls.

We would also like to see agency-specific and governmentwide root cause analysis performed on Management Watch List and high-risk projects. Having such information would help identify areas for agencies to focus on and to identify weaknesses that transcend individual agencies. Such information would help to identify agency-specific and governmentwide improvement areas that could be addressed by hiring, training, and independent review teams, to name a few. In addition to focusing on the root causes of these poorly planned and performing projects, agency, OMB, and congressional oversight should focus immediately on the 33 projects highlighted in my written statement that are on both lists, as well as those projects that are repeat offenders, meaning that they have been on either list for extended periods of time. For example, last September, there were 86 projects on the 2007 Management Watch List; 29 of these are on the 2008 list since it was released earlier this year with the President's budget. In addition, my written statement highlights over 20 projects that have had performance shortfalls for the last four quarters.

In summary, Mr. Chairman, OMB should be commended for shining a spotlight on these poorly planned and performing projects. Now more needs to be done to fix them. Specifically, OMB and agencies need to address the root causes of these management weaknesses and focus on those projects that have multiple issues or those that have a long history of planning and performance shortfalls. Until this is done, we continue to risk wasting billions of dollars on these projects and leaving gaps in mission-critical operations.

This concludes my statement. Thank you, Mr. Chairman, for your continued oversight of the Federal IT budget.

Senator CARPER. Mr. Powner, thanks very much.

I am going to ask you to talk us through each of these charts.

Just walk us through Figure 1, please, poorly planned and poorly performing IT projects, from June of this year. Just explain both of them, if you will.

Mr. POWNER. Well, first of all, the Management Watch List, that is derived by a review of agencies' Exhibit 300s, so these are poorly planned projects.

Senator CARPER. Talk to us a little bit about the Exhibit 300s. Some people have never heard of Exhibit 300s. Just what is it?

Mr. POWNER. Well, what the Exhibit 300s is, it is the business case for these IT investments. It is also an assurance that we have adequate planning from a project management point of view. There are several areas based on OMB's guidance—and Ms. Evans can get into the details here—where we look for things like earned

value techniques so we can track costs and schedule performance and those types of things, effective risk management programs.

So based on the review of these business cases, there is roughly 136 projects totaling $8.6 billion that are poorly planned. That is where you get the combination of the first two boxes there, the Management Watch List.

Now, the high-risk projects, as Ms. Evans clearly pointed out, just because it is high risk does not mean that there is an issue with it. What we focus on are high-risk projects with performance shortfalls, one of these performance shortfalls on the far right chart.

So if you look at the high-risk projects with shortfalls, we roughly have $6 billion projects—that is about 125 projects totaling $6 billion. So if you take the two lists and add them up, you get to about $14 billion. But since we have the overlap of $4 billion, collectively we have about $10 billion that is at risk today.

Senator CARPER. All right. Go ahead and talk to us a little bit about the chart on the right.

Mr. POWNER. The chart on the right, if you look at the 125 high-risk projects with performance shortfalls, some projects report multiple shortfalls. that is why it adds up to more than 125 on the far right. So, clearly, the No. 1 shortfall for these high-risk projects are costs and schedule not within a 10-percent threshold. That is very common across the Federal Government, and I think the chart that Dr. Coburn held up that talked about the rebaselining, at times there are good reasons to rebaseline, but what you do not want is excessive rebaselining that masks overruns within 10 percent. And I think that is a large concern that was appropriately pointed out.

You can see there that the second highest reported shortfall is where we do not have a clear baseline. Then following that are 33 projects that are self-reporting that they do not have a qualified project manager.

Now, interestingly, if you added the totals of those 33 projects, you come close to $1 billion worth of investment for fiscal year 2008. That is not a good thing. We are saying that we have $1 billion worth of investment that we do not have qualified PMs running those projects.

And then, finally, the last category there is duplication. In that case, there are a lot of e-gov initiatives where agencies have some of their financial management e-gov projects that they are actually reporting that there is current overlap with that because they have existing payroll systems and the HR systems and those types of things. But, clearly, the No. 1 issue here is the cost and schedule variance.

What we would like to see is not only a breakdown like this—this is a good breakdown for the high risk. We would like to see a breakdown like this for the reasons why projects are on the Management Watch List. We have never seen that. So we do not have a comparable breakdown for the Management Watch List.

So what my written statement highlights is we would like to see a comparable breakdown, and then we would also like to see even a further breakdown where you get at the root cause analysis. Why do we not hit the 10-percent threshold? Well, I can tell you that we estimate poorly; we define requirements poorly; we have poor

risk management; we have issues with overseeing contractors. If we got into those root causes a bit more, then you can attack a lot of those root causes from a governmentwide and agency perspective. And to Ms. Evans' credit, her CIO Council and a number of efforts actually touch on a number of these improvement efforts. But we would like to see more follow-up from a root cause analysis from these lists.

Senator CARPER. Would you repeat what you were saying there about we do not have a comparable . . . ?

Mr. POWNER. We know that there are 136 projects——

Senator CARPER. And then I am going to ask Ms. Evans to respond to that and say why do you suppose that is the case. Go ahead.

Mr. POWNER. We know there are 136 projects totaling $8.6 billion on the Management Watch List. Now, we do not know why they are on the list. We know it is one of 10 categories. We understand how OMB scores, but we do not have the specifics where we would have a comparable analysis like we do for the high-risk projects with shortfalls.

Senator CARPER. Do you think that would be helpful to have that?

Mr. POWNER. Absolutely. I think if you want to attempt to attack the root cause of the issues here, it would be nice to have that breakdown and then go after the primary problems.

Senator CARPER. OK. Ms. Evans, would you just make a comment or two on that, please?

Ms. EVANS. When we review the business cases, there are 10 areas, as Mr. Powner said, that the business case is composed of when we look at major investments. And so in those particular areas, it is things like project management which then translate over to the high-risk list. So you actually see activities related—what they say they are going to do for project management, do they have a qualified project manager. So you actually see that going into the execution.

We have not released the exact scoring of this for a couple reasons, too, because this is a planning document as the agency is justifying the investment, going forward and talking about how they are going to do certain things that support the priorities going forward through the agency. So it is a supporting budget document at that point. That is one of the issues.

The other thing is that there is a lot of analysis. We may not be as transparent with the analysis as everyone would like for us to be, so I will acknowledge that up front. But there is a lot of analysis that goes onto this and that when we release it, along with the other activities that we use, like on the President's Management Agenda, on the scorecard, we actually evaluate things like security and privacy. There are specific criteria associated with that. And so when we rank these, when we rate these, we are using other information that complements the business case, not just what is said in the business case alone.

So if you take security and privacy, when a business case comes in, in September, the annual cyber security report also comes in, in October. So what we do is we look at that information together, and so if an IG says that an agency has a very poorly performing

security program, when you start looking at what is happening within the security overall within an agency, we look at that in total, and we say, OK, this particular part of this business case, which we have been very public about that, the whole business is at risk because they have a poorly performing security program. So we put those investments on the Management Watch List based on using the two pieces of information together.

Now, it is possible—so I am really getting into some nuances here—that they can have some type of compensating risk for that particular investment which may not necessarily put it on there. So we use several pieces of information, and so my concern is that if we released a comparable piece when we are in the planning phase, it may not necessarily show all the analysis that goes into what we do with the business case as we are making recommendations through the budget process. So this is a planning document.

At the end, when we release it, when the President's budget is released, we keep them on the Management Watch List for specific things. And I think what I am hearing from everybody—so I will go back and relook at that—is at that time when we release those, you would like to know specifically why they are remaining on the Management Watch List, and is it something systemic like a failing cyber security program, or is it something particular to that particular investment. And so I will take that back and look at that as a potential area for improvement for us.

Senator CARPER. All right. Good. Thanks.

I am going to ask you to hold your fire right here, and we have 7 minutes to go on this vote, and I am going to run and vote. We are going to stand in recess until Senator Coburn comes back. We will resume the hearing once he gets back, and he will ask some of his questions. And I should be back in about 10 minutes, but for now, let's just stand in recess. And as we used to say in the Navy, "At ease."

[Recess.]

Senator COBURN [presiding]. All right. We are going to try, for the sake of efficiency, to keep going, and Senator Carper should be back shortly.

I want to spend a little time on the business case, the Exhibit 300s. When something comes on the Management Watch List, most often it is because the Exhibit 300s, there is something wrong with them, right?

Ms. EVANS. Yes, sir.

Senator COBURN. How is it that we have already bought a product when there is something wrong with the business case analysis?

Ms. EVANS. OK. When you do a business case analysis, it depends on where you are in the lifecycle of the investment as well.

Senator COBURN. Well, let's talk about just when it starts.

Ms. EVANS. A brand-new one.

Senator COBURN. A brand-new one. If we have a business case analysis that does not fit, that in OMB's assessment is suspect, how in the world do we start down the road on a contract when we have a business case analysis that does not make sense in the first place?

Ms. EVANS. So if this is a brand-new project and we look at the business case and the business case is not strong enough or there is a weakness in it based on—because at that point it would be planning and then your potential acquisition strategy. So those would be the areas that we would highlight the most on because it is a brand-new type of effort.

So if it ended up on the Management Watch List, what happens is that is 2 years in advance, so the Management Watch List, what you are doing is that is a document that is supporting the upcoming budget. So right now, they have not done anything except for tell us what they are planning to do. And we are saying there is a problem with what you are planning to do, whether it is the acquisition strategy, you have not thought of all these things.

So we work with them all the way up to where they actually have to execute out on that planning document. We say, "OK, you have to have a remediation plan, or we want you to go back and look at the acquisition strategy, or it is not really strong, or whatever the weakness is." And so we work through the upcoming year knowing that they have got to fix and put some type of plan in or address it or fix their acquisition strategy going forward.

Now, in the ideal world, what would happen is before the fiscal year starts, they would have addressed all those weaknesses so that when the money is appropriated and they start that new project, that all the things that we have identified from a planning perspective jointly have been resolved, so that they can then go forward with the proper precautions in place.

If you step back and say, "OK, maybe they did not address some of the planning issues, like project management, they do not have a qualified project manager on there to manage it through;" then what will happen is we say, "OK, they have done these other activities, they have this person set up to go into training, they have a remediation plan as they start to execute." So it moves to the high-risk list because that is when you are actually executing out on that particular effort that we thought needed to have some type of remediation.

Senator COBURN. But here is the thing I do not understand. If, in fact, everything is not solved, why would we go on and allow a contract to be let?

Ms. EVANS. Sometimes we do not.

Senator COBURN. Well, I know, but sometimes you do.

Ms. EVANS. Sometimes we have to——

Senator COBURN. No, you do not have to. You could say we are not prepared to spend the people of this country's money wisely so, therefore, we are going to hold off on your allowing to let this contract—unless it is an earmark, we are going to hold off allowing you to spend this money until you have your act together.

Ms. EVANS. Which I would say that OMB does use its authorities appropriately, especially in those types of cases, and then we also then, if the project has to go forward because there is a compelling business need, that we use the proper budget authorities, proper management authorities that we have, and we do not just release all the funds so that there is a floodgate of money and no accountability.

Senator COBURN. No, and I am not accusing you of that.

Ms. EVANS. Right.

Senator COBURN. If something is on the high-risk list and then it goes to the Management Watch List, to me it says we did not do what we were trying to do on a high-risk list. In other words, the whole purpose for having the high-risk list is so that they do not move to the Management Watch List. And if they are moving from a high-risk list before we ever institute a contract to a Management Watch List, how did we fail in that time period where we recognized there was a problem until we were implemented?

If there is a business case to be made to start a program and yet we are going to start it without all the tools and all the management there, why would we go on and start it? Even though we are going to lose some time, why would we not get it right before we start it? Because we are wanting to spend the money in the budget that is allowed?

Ms. EVANS. No. I would say, sir, to the agencies' credit in that particular case, the underlying business requirement is there because they put it together, whether it is a brand-new program coming out or there is a business need. So they clearly have identified a business need, and it is a major investment because it is coming in on a business case. I would say a lot of times to the agencies' credit, especially when we are highlighting certain areas that we have major concerns with, which we know the oversight committees would also have concerns with, they do slow down several of these activities until there are proper gates in place. They do go back and relook at that and slow it down and say, "OK, we cannot—we are not going to spend this money right now because we cannot answer some of these questions, we do not have the right contracting vehicle in place, OK, you want us to put certain provisions into the contract, we need to go back and look at it."

And so the agencies in partnership with us, with, "we are OMB" type of approach here, but they do go back, to their credit, and go back and re-evaluate those, and there have been several projects where they have either stopped them because there was not adequate controls in place and then restarted them, or they have stopped the contract and redid the contract to address those concerns.

Senator COBURN. How much is Congress to blame for bad projects moving forward? Have you looked at that? In other words, where we have directed you to do something that you are not ready to do because some Member of Congress says you have to do it?

Ms. EVANS. I cannot say that I have specifically done that particular analysis.

Senator COBURN. Has GAO looked at that?

Mr. POWNER. No, we have not. But one thing to point out, the high-risk list, Dr. Coburn, if you look—we have 840 projects, right? And so "high risk" means it is an important—it is high dollar, it is an important project. If we do not deliver it, there is going to be some——

Senator COBURN. There is going to be a cost.

Mr. POWNER. There is going to be an issue, right?

Senator COBURN. Right.

Mr. POWNER. So of the 840 projects, we have about 440 that are deemed high risk, which means they are important projects. So we

have 400 projects that agencies are saying are not that important. That does not make sense, does it?

Senator COBURN. No.

Mr. POWNER. I would expect 90 percent of our 840 projects or more to be on the high-risk list.

Ms. EVANS. Well, OK.

Mr. POWNER. To your point about what are you instructed to do and that, I think, it would be worthwhile to look at those 400 projects. Why aren't they high risk?

Senator COBURN. Well, I think you will probably get a letter from my staff requesting that of the GAO after this hearing.

Ms. EVANS. There is a nuance here, so I need to clarify something. I feel this compelling need to clarify this. I appreciate this opportunity.

When we use the 840 number, that is a major investment. So when you are preparing this audit to ask them to look at this, that does not necessarily directly equate to 840 projects. So there could be a lot more projects under that investment, depending on how they group things. I am going to give you an example. Our policy says for one business case, one investment, we want one Exhibit 300 that deals with infrastructure, office automation, desktop computing. Now, when you actually look at that and what is encompassed in that, we also have a policy out there that is now telling agencies you need to do a standard desktop configuration, you need to move your agency to implement Internet Protocol Version 6. There are other things that they are doing, like changing out their telephone systems, updating—those are all projects.

So there could be potentially five to six projects associated with one investment, so I am actually making the argument that there could be more than what is being reported here, but I want to make sure that everybody realizes it is not a one-for-one match here.

Senator COBURN. I think that is a fair statement, and we will do that as we look at it. But it kind of goes back as to why if we start a project and it is on the high-risk list, why does it stay on the high-risk list? Why don't they ever get off?

Ms. EVANS. Because sometimes they should stay on there because of the complexity of the project, or because of the oversight and the mission-critical nature of the project. It can be a very highly performing project, but everybody wants to make sure that it gets to the intended results. And so there are other projects that are down there that are—for example, let's take the 25 E–Government initiatives. Those are very important to the Office of Management and Budget. Those may not necessarily have the same level of importance to every different part of the organization within the agencies. So we use our authorities to put that on the high-risk list to make sure that there is not duplication.

A project could be performing very well, but because Congress has a particular interest in a project because it is mission critical, because it is doing things with homeland security, it should be on the high-risk list so that everyone knows what it is doing, how well it is performing, getting that information on a quarterly basis so that you know how it is performing.

Senator COBURN. So let's go back to the Management Watch List. Those are poorly planned?

Ms. EVANS. Yes.

Senator COBURN. So let's just use the Management Watch List. Why do they stay on the Management Watch List then? If they are poorly planned, where is the arrow that goes in and says poorly planned, fix it or quit it? Make it properly planned and fix it rather than keep it on the Management Watch List because it continues to be poorly planned.

In other words, that is not an acceptable behavior anywhere in the private sector that you are going to allow somebody to continue to have a nightmare program and not go in and fix it. And we are not going to continue over a 5-year period to continue to say this is a poorly planned project. Somebody has to remedy a treatment or a solution for that problem.

I am not upset with you all. I think you guys have done a great movement. I want to move us all the way. I think we are wasting $6 to $8 billion a year on IT right now, at a minimum in this country because we do not do bid—we do cost-plus contracting. And we could get a lot of it done for a whole lot less if we held contractors' feet to the fire and if we knew exactly what we wanted. Our problem is that we do not know what we want, so we still offer a contract anyhow, and the system works to where it is cost-plus. And since we are changing what we want as we go, the VA has rebased over 90 percent of their projects, IT projects, which means they do not know what they want when they started it. They do not know the final result they want.

As we move people onto the high-risk list, we move them onto the Management Watch List, there has to be—if they stay on the high-risk list, I understand that. It is something important for the Pentagon or Homeland Security or something that is strategic. But the Management Watch List is not. It is "poorly planned." That is what the definition of it is.

Ms. EVANS. Right.

Senator COBURN. And so why do they stay there?

Ms. EVANS. So when you look at that, I would ask for us to drop down a specific level, which when you look at all the different investments that have been initially on the Management Watch List—it is a planning document, but we have done the analysis across the board, from the inception when we started the Management Watch List. Now we changed it from 2004 to 2005, and we called it a "Management Watch List" because there were activities, things you needed to look at and work with it.

If you look at it from the time that we started that to now, and out of the thousands of investments that we had, there are 73 that have consistently been there for one reason or another, depending on where they are in the lifecycle. So when you look at that number, 73—I am not saying that is good, bad, or indifferent. We know exactly what it is. So then what you do is you drop down and you say, "OK, is it a systemic problem within the agency or is it that particular investment because they do not know what they want to do on that particular project." And in the case of one agency, I know it is the two because it is duplication. And we are arguing with the agency saying that it is duplication in what you are doing

and so we do not agree with this, and so we have been scaling back and making them move those so that they are consolidating the system.

So we have had that ongoing issue to consolidate down and have a good plan so that they can continue on with the services that they are doing, but consolidating it and meeting all the other requirements. We have continued to put that on the Management Watch List from that perspective, and then each year we work through that incremental performance with them.

Now, I will tell you that when you look through the 73 investments that are consistently on the Management Watch List, our numbers, even though we have not released these, match up with yours. We have identified the same type of issues that you have. There is a systemic problem at VA. There are issues at VA about how IT programs are being managed, how they are doing certain things. And the CIO there, Bob Howard, is really aggressively moving out to address those overall weaknesses that you are now seeing through all these other indicators.

And so we are working very closely with him because there are underlying issues that are causing people to question why they are rebaselining, why these things are happening, and it does go back to specific things like what problem are you trying to solve and how will you know that you have done it and how does this investment or this particular IT project, how is this helping you get there?

Senator COBURN. I will finish up, if we can come back in a minute. Is there a clearance procedure at OMB for IT programs throughout the government? In other words, can they initiate one without you all saying OK?

Ms. EVANS. That is kind of——

Senator COBURN. Well, now, that is just a yes or no answer. Can they initiate an IT program without OMB's approval?

Ms. EVANS. I would say that the answer, the straight yes or no answer would be "yes." I would hope that agencies, through the process of what we have in place, that they give us the information ahead of time. But we are talking about major investments, and when you talk about an IT project, the Exhibit 53, which is a higher-level document that summarizes information, we do not get down into the specificity of some specific projects because we allow them that flexibility.

Senator COBURN. Are you still allowing the VA some of that flexibility? And are you still allowing the Department of Health and Human Services that flexibility?

Ms. EVANS. No, that is a different issue on that particular one. So what we have in place is earned value management. There is a policy in place. So earned value management deals with this particular issue. That is the actual execution. So when an agency starts a project, there are certain guidelines in place. You are either using new money, you are starting something new, or it is steady state. If you are using new money, you have to put this in place.

And so we work very closely with these agencies, and VA in particular is on my other list—I have another list here—from the earned value management, who has it in place, who has policies in

place, who has these things in place. That is what that issue is because in order to really do it, you have to get an integrated baseline. Once you do that, the simplest way to understand it is—I plan these actions for this year and this is how much I think it is going to cost. Then I start executing out every quarter, and if I have done a good job planning, it is going to fall within 10 percent. If I have done a bad job planning, it is going to be really out there, or it may take an action like rebaselining.

Senator COBURN. But if you had a fixed-price contract and you knew what you wanted and you competitively bid it, you would not have the price variance.

Ms. EVANS. You would not have a price variance, but you would still have a performance variance.

Senator COBURN. Well, you may, but at least you are controlling the other end of it. We are not controlling the other end of it. Twenty percent is the average.

Ms. EVANS. Well, and we agree with you because we—that is the other thing that we asked the agencies right when they were starting, if they were in a new phase of the contract, or whenever a contract is coming up for renewal. All the E–Government initiatives, the way that we are moving those out are performance-based contracts. You pay on the level of performance. If you do not perform, then you do not pay. Or there are incentives for pay or there are disincentives for performance.

Senator COBURN. I need to yield back, and I will yield to the Chairman.

Senator CARPER [presiding]. All right. Senator Akaka, you are recognized. Thanks for being here.

Senator AKAKA. Thank you very much, Mr. Chairman.

Ms. Evans, I understand from your biography that you have a lot of experience in government. First, let me thank you for that service. As you may know, I am a strong advocate of choosing government service as a career, and I am glad you have chosen that path. I hope that your service will help us find a better way to deal with the problems that we have now. So when you hear reports like $65 billion is being spent for 6,500 IT projects, it is difficult to understand how much investment is put in, and immediately the question becomes: How do we keep this in check? Is it working right? And this is our problem, and we are trying to find answers to do that.

From your long service, I am sure that you understand better than most how government agencies often resist change, especially in processes that have been in place for years. This is often reflected in the unique technology solutions adopted at many agencies, and what I am referring to is that many agencies do create their kinds of systems.

In the area of information technology, should agencies be doing more to adopt private sector best practices so that they can use more off-the-shelf technology?

Ms. EVANS. So the simple answer is yes, and when we go forward on that—but I do think that there are a lot of things that we do within the Federal Government that the private sector does not have to do, especially statutory types of requirements and data as-

surance and information security types of requirements that Federal CIOs need to do and are statutorily required to do.

So I think a lot of times when you start looking at best practices, there are actually some really good best practices within the Federal Government, and we need to make sure—that is what the CIO Council does, to make sure that they are shared across the government so that all of us can learn from one another.

Senator AKAKA. Mr. Powner, in 2004, GAO released a report on agency CIOs that found that there is high turnover, as I mentioned in my opening statement, with an average tenure of about 2 years. Can you give me your thoughts on what, if anything, the Federal Government can do to compete with the lucrative private sector for the best talent and then keep that talent in the government?

Mr. POWNER. There are several things that you can do. First of all, it is very difficult to compete because the salaries are comparable in the Federal Government, first of all. And you are right that turnover is very high. On average, it is 2 years. If you look at political appointees, it is less than 2 years; career CIOs, slightly higher.

One of the things you can do—and there are some agencies that have done a very good job looking at critical position pay authority, where you can actually pay up to the salary of the Vice President through critical position pay. IRS is a good example. IRS sought a number of those critical position pay authorities, and a lot of those are within their IT organization. They were able to attract some very talented folks. In IRS we always hear a mixed bag about whether they are doing well or not, but they have had some successes in recent years, and that is due to the critical position pay. So that is one area that you can look at.

The other thing that is very important when you have this continuity that is always at issue is the Deputy CIO position. Some agencies have been very effective, especially when you have political appointees, having a career deputy, that kind of keeps some continuity over time there. So that is also something that is very key.

Senator AKAKA. Ms. Evans, can you give me your thoughts on that same question?

Ms. EVANS. OK, so I am probably the exception to the rule since I am now a political appointee, and I am going on my fifth budget season. So I am past the 18-month piece here in both tenure.

So it is hard for me as a career public civil servant to say that there is competition out in the private industry. To me, these jobs are very rewarding, and so there are reasons why you are attracted to public service. And these jobs, especially the CIO jobs, are very exciting because you are right on the cutting edge and you see everything, and so you have the opportunity to really make a difference. You see how things are, and you see how things can be. And so I think it is important for us to attract the right folks in here.

Now, on a more granular level, what happens is we are required through the Clinger-Cohen Act to actually do a workforce assessment. We do one every 2 years. So the CIO Council actively takes this on. We have identified where our skill gaps are. We have identified what our personnel gaps are, how many people we have on

board in those positions, and we are actively doing things to ensure that we can retain them through activities like pay. We are doing other activities along the lines to ensure that they are properly trained. We have put out guidance dealing with project management. That is a particular skill gap that we have identified that we have to have and recruit and retrain.

The CIO Council has actively gone out and has programs in the high schools as well as the colleges to attract IT professionals into our area. We work very closely with several programs that the agencies have in cyber security, which is another area so that we can then do direct hires and bring them into our workforce.

I do think that there are a lot of things that we need to talk about as far as leadership and continuity of that leadership, and there is a lot to be said about how there is the political CIO as well as the career deputy. But I will tell you, if you look at the agencies going across the board, the leadership that is in the agencies now look at the CIO as a critical function and now whether it is political or career. They look at it as what are the skill sets that we need, what are we going to accomplish, and who is the right person for that job. And I actively work with each and every department to ensure that we get the right person into those positions as they leave.

I am very passionate about my service, and I feel that we have a wonderful opportunity here in the Federal Government to make a difference. So I think that it is attractive enough and that there are other things that attract us into this. And so I think everybody does want to do a good job when it is all said and done at the end.

Senator AKAKA. I understand that part of the problem that we are facing today in trying to resolve these problems is that GAO is having some difficulty in tracking problem projects. And the reason that I see as stated here is that OMB does not list why specific projects are on the Management Watch List.

Is that correct? And if so, what can we do to correct or improve that?

Ms. EVANS. So that is correct. We do not list the specific reasons when we release the list that is out there for the Management Watch List. We have really looked at that—we were discussing it a little bit during the break—because we look at the Management Watch List as a planning document, and what is really more important is how agencies are actually executing, which is all the information associated with the high-risk list because that is boots on the ground, what are they doing, how are they performing, and you can get that information on a quarterly basis.

The Management Watch List in our view is a planning document that an agency is doing 2 years in advance, and so what we really want them to be focused on is execution and getting the things done.

So this was my concern initially—but 100 percent transparency is giving us consistency here—that we get very focused on the list and not really focused on the results. And so that is why we put a lot of effort on the high-risk list. But I hear the concern, and so I will go back and see what we can do about when we release the President's budget and the list and the information about having more transparency into that process.

Senator AKAKA. And our concern, too, is that the Clinger-Cohen Act requires you to establish the process, analyze, track, and evaluate the risk, and also analyze the results of the major capital investments that are made, and my question was to see that is carried out.

Actually, we have heard from GAO that they are having difficulty along this line, and I hope we can find a way of improving that. Thank you very much, Mr. Chairman.

Senator CARPER. Thank you, Senator Akaka.

Let me go back to this chart over here for just a moment, if we could, and, again, we are looking at the number and type of high-risk with shortfalls, and the third column over says 33 of them fall into the category of a lack of a qualified project manager. I think Mr. Powner said that the number—if you quantify the dollar value of the projects, is about $1 billion. And we are talking a little bit in here about how to attract and retain qualified folks to work in these jobs when you are trying to compete with the private sector where they can make a lot more money.

I just want to ask about the issue of a qualified project manager, any idea why, Ms. Evans? Is it because we are unable to attract and retain folks, because there is a turnover, the churn in the managers that are managing these kinds of projects? What is the deal?

Ms. EVANS. There are a couple of issues associated with that which we have looked at, and so we have the specific information by agency going across about how many project managers they actually have on board and how they are training them and closing the gaps.

Initially, what we have is we have more projects than we do qualified project managers right now. So that is the initial gap that we have identified, and that is what you are seeing right there. That is the validation of that. And so what we are doing is CIOs then are either compensating for and closing that gap in other ways—they put a person in there and then train the person as they are going along with the project. And so that is why they will show up that way. If it is a project that is a high-level project that needs the highest-level project manager, yet they only have one who is certified at a secondary level, they will put that person in there, but then they will concurrently train them as they go forward.

So it is a gap, and it is a combination of several things: Recruit, retrain, the churn as people leave, and then the volume of the projects. So we are constantly focused on trying to close that gap.

Senator CARPER. Is it being closed? Is it steady? Is it going up? Is it going down in terms of—that number last year, was it 30 or 25? Or was it higher?

Ms. EVANS. To be really honest, right now the methodology that we are using does not give me accurate enough data to be able to answer that question going forward. We are really looking through those numbers so that I can consistently answer, have I systemically addressed what that issue is. I know what the numbers are by a quarterly basis of what is happening, but when I start looking at those in conjunction with OPM through the scorecard, some of it I think I need to strengthen the process jointly with OPM so that I have more validity in the numbers.

Senator CARPER. Think about that question and respond in writing and see if you cannot give a little more insight.

Another question or two, if I can, and I think Senator Coburn has maybe another one or two. We will see if Senator Akaka has another one, and then we will go to our second panel. My goal is to try to wrap it up here around 4:30. I need to leave by then. So we are going to try to—pardon? No, it is not my train. It is a meeting with our leader. And I do not want to get on his bad list.

Senator COBURN. It's fun.

Senator CARPER. How would you know? [Laughter.]

All right. For OMB, one question. When overseeing multiple projects by dozens of agencies, it is important to recognize trends and create solutions before a problem becomes widespread. I think we all agree with that. I noticed that some agencies were able to decrease the number of projects on the Management Watch List fairly drastically. Others sort of continue to have difficulty effectively managing their investments.

What is OMB doing to highlight trends and examine the root cause of governmentwide problems in planning and implementing IT projects?

Ms. EVANS. So we do the analysis and look at the business cases across the board so that we can identify whether agencies are having a hard time really saying what the outcome is, so performance-based and a good way of measuring that.

We look across the board to see if there are problems with the acquisition strategies and how those things—I think that has been highlighted. You are aware of those issues just like we are aware of those issues.

So if we identify things that are specific to the workforce, like we were previously talking about, we will go back through the CIO Council and work those problems jointly with the CIO Council and go through and get suggestions, recommendations about how to deal with that. Is there a policy that needs to be done in a particular area, or is it really execution? And is it realignment of resources, those types of things?

So we try to see if there is broad-based types of issues going across, and if they are, we jointly work that with the CIO Council.

If it is agency-specific—and in a lot of cases, it is—I work very closely with the budget side of the house as well as the agency itself, and so there are several agencies that I meet with on a monthly basis so that we can make sure that we are addressing what those overall issues are, whether they are management issues, it could be leadership, it could be something at the higher level that they do not necessarily get all the visibility that they need to in some of the projects.

We do dive down vertically, and we do look across horizontally at those problems, and we try to highlight those when we do the chapter in the budget so that everyone knows what type of analysis we have done as we are required by Clinger-Cohen. And then the types of actions that we intend to take, whether it is OMB-specific or CIO Council types of actions.

Senator CARPER. Thanks very much. Dr. Coburn.

Senator COBURN. Great. Thank you.

I guess one of the things I would like for you to answer back, after you have had a chance to think about it, is you have a tough job. I mean, this is a lot of stuff, a lot of important stuff. I would like for you to answer back: How do we help you? How does this Subcommittee help you? In other words, if there are areas where there needs to be oversight in specific areas, we ought to be doing that. We ought to be looking at it. Every now and then heat brings forth light, and it would be nice if we could know where we can actually help. Rather than just have a hearing to talk with you about it and ask GAO to look at it, are there specific agencies that ought to be before us that have failed to respond and failed to go up?

I would just note, we have one in five projects that get rebaselined in this country. One in five. I would just tell you there is not anywhere else out in the private sector where they would tolerate that. We have one in six without a project manager—without an appropriate project manager. And so we continue to go forward with a project even though we are required by law to have a project manager there that is qualified, but we go forward and do it. And there may be some thought as to maybe we should not do the project until we have the qualified project manager there because even though we may be more timely in our response, the cost and the effort and the end product may not be near as well as had we waited a year until we got a qualified project manager. So I would just like for you to think about that.

Mr. Powner, I would like for you to just talk with me, and if you do not know the answer, it is fine. What percentage of our IT contracts are cost-plus versus fixed-price?

Mr. POWNER. I do not have the specific numbers on that, Dr. Coburn. I would tell you that there are very few fixed-price contracts.

Senator COBURN. Is there a systemic reason why there is not fixed-price contracts?

Mr. POWNER. The reason is primarily because there is uncertainty with what is to be delivered and that type of thing. So the more we can define up front through solid requirements that are validated, that all helps.

Senator COBURN. In other words, better planning, knowing what you want.

Mr. POWNER. Correct.

Senator COBURN. And what your end result is to be?

Mr. POWNER. Correct.

Senator COBURN. So the fact that we do not have that indicates that really our planning may be worse than what we think it is.

Mr. POWNER. I think the planning is pretty poor. If you look at the Management Watch List, we are saying that 40 percent of our projects are poorly planned, and we contend that is understated. OK? Because the Exhibit 300s are still—there are still games that are played with the Exhibit 300s.

Senator COBURN. Are the games played because so many of the Exhibit 300s forms are actually filled out by the contractors themselves?

Mr. POWNER. Well, I think it is just the nature of your business case. I mean, it is not just in the government, but in the private

sector, too, you do everything you can to stretch your business case to make sure you get the funding. But the contractors are writing a lot of those Exhibit 300s. That is how the process is played out, correct.

Senator COBURN. All right. I will submit additional questions for the record.

Senator CARPER. As will I.

Senator COBURN. Thank you both.

Senator CARPER. OK. Senator Akaka, another question?

Senator AKAKA. Yes, Mr. Chairman, I have some questions here, but let me ask one of them in the second round.

Senator CARPER. Please, go ahead.

Senator AKAKA. Ms. Evans, I am concerned that having both what they call an at-risk list and a high-risk list unnecessarily divides up the projects that are or may become problematic. These IT programs should be measured across several dimensions. For example, some projects may be inherently risky due to size but are executed well, while others may have been planned well but have poor outcomes. I am sure you have seen cases of both.

Why wouldn't OMB combine all of these projects and assess them across the same dimensions much like OMB does with the Performance Assessment Rating Tool?

Ms. EVANS. So we view that the IT investments complement the Program Assessment Rating Tool (PART), and we do evaluate the IT investments in alignment with those, so there is a performance piece. The business case, though, has to clearly talk about how it aligns with program outcomes. And we do ask them about the PART and the process. We used to track it until all programs had gone through the assessment, and now agencies have to clearly show that alignment, whether they are meeting the efficiency measures in the improvement plan or they are actually dealing with the measures on performance.

So we do that linkage.

There is a difference—and we can go back and look at this, but there is a difference in time, and I think the way that the PART is structured is when they first look at it, that is how we have the Management Watch List. That is the business case, that is the Exhibit 300s, because of the cost that you are asking for in the budget process. It is a budget document.

There is an improvement plan on the PART as the agency goes forward, and then they measure against the improvement plan. That is the same as our high-risk list. In our high-risk list, each one of those has a plan underneath it, and then we manage that on a quarterly basis looking to see how well they are executing against that plan.

Now, it may not be as smooth, so we can take a look at it, but we have these two dimensions in time of how we are looking at it, and that is why we have separated it. But we do continuously analyze it, and then we also then align it. So I hope that has helped in the answer going forward, but we can take a look and see if we can better articulate how we do the analysis with these two documents to show that we are doing it on a continuum basis.

Senator AKAKA. Mr. Chairman, because I have another hearing to attend, let me conclude with this one question.

Ms. Evans, OMB has put considerable effort into producing these risk lists, though, as we have said, we would appreciate it if more detailed information were available publicly. OMB has considerable power to influence how agencies spend the dollars that they have been budgeted.

If OMB concludes that an individual IT program is having problems or is failing, could it and should it use budgetary means to try to correct or end it?

Ms. EVANS. Yes.

Senator AKAKA. Thank you. Thank you, Mr. Chairman.

Senator CARPER. Was that the answer you were looking for?

Senator AKAKA. Yes.

Senator CARPER. All right. We will wrap up this panel with that response. I just want to thank you both for being back here and for the time you spent preparing for the testimony today and for your focus on these issues.

Dr. Coburn a year or two ago put his finger on an important issue, and I certainly agree that it is important. He asked a real good question here today—several of them, but one of them was how can we be of further help? And I just think it is helpful when you put a spotlight on an issue that needs to be—an itch that needs to be scratched, and this is one that needs to be scratched. And to the extent that we can be constructive—and that is what we want to be—we look to you for some guidance on that front.

In the meantime, stay vigilant, remain vigilant, and we will look forward to having the opportunity to continue this conversation further down the line. Thank you very much.

With that, we would like to invite our second panel to come forward, please. Barry West, we are going to start off with you. I am going to just make a very short introduction here. Full introductions will be in the record, but this is just the highlights.

Mr. West joins us as Chief Information Officer at the Department of Commerce. Mr. West was formerly the Chief Information Officer and Director of the IT Services Division for the Department of Homeland Security and FEMA, as well as the CIO at the National Weather Service. He serves in a number of key associations and councils advising on information technology issues.

Daniel Mintz, currently serves as the Chief Information Officer for the Department of Transportation. His previous experience was with Sun Microsystems where, for 10 years, he worked on implementing large government and commercial programs. Before that he served as a member of the State of Maryland Advisory Panel on Electronic Commerce, providing advice on enabling online commerce in his State, my neighboring State to the west.

Next we have Michael Duffy, who just last week was appointed as the Deputy Assistant Secretary for Information Systems and Chief Information Officer at the Department of the Treasury. Good for you. He joins Treasury after serving at the Department of Justice where he served as the Deputy Chief Information Officer.

Next, Scott Charbo. Mr. Charbo is the Department of Homeland Security's Chief Information Officer. He has previous experience as CIO for the Department of Agriculture and as President of a company called mPower3, Incorporated. Welcome.

And, last, Paul Brinkley, who is the Deputy Under Secretary of Defense for Business Transformation at the Department of Defense. Mr. Brinkley leads the business modernization for the Department of Defense, and prior to assuming his current role, he served as Senior Vice President of Customer Advocacy and Chief Information Officer for JDS Uniphase Corporation.

We welcome you all. Your entire testimony will be made part of the record, and we will recognize you in the order that you have been introduced. If we have time for questions at the end, we will do that. If not, we will submit questions and ask you to respond for the record. I need to leave here about 4:25.

Mr. West, you are recognized. Thank you again for coming.

**TESTIMONY OF BARRY C. WEST,[1] CHIEF INFORMATION OFFICER, U.S. DEPARTMENT OF COMMERCE**

Mr. WEST. Chairman Carper, Ranking Member Coburn, Senator Akaka, I appreciate the opportunity to address you on the Department of Commerce's inclusion on the Office of Management and Budget's High-Risk List and Management Watch Lists.

Commerce has 12 information technology investments on the OMB High-Risk List. Of these, eight represent Commerce's participation in OMB's E–Government Initiatives or Lines of Business with a migration component or where Commerce is a shared service provider.

The OMB High-Risk List. These investments were designated by OMB as high risk and include E–Travel, E–Rulemaking, E–Authentication, and the Financial Management Line of Business. The other four were nominated by Commerce because they meet two of OMB's four high-risk criteria. The four investments nominated by Commerce include three components of the upcoming 2010 Decennial Census. They are the Field Data Collection Automation, FDCA; the Decennial Response Integration System, also known as DRIS; and the Master Address File and Topologically Integrated Geographic Encoding and Referencing system, also known as MAF/TIGER. The fourth is the Ground System of the National Polar-orbiting Operational Environmental Satellite System, also known as NPOESS. All meet OMB's evaluation criteria, that is, they have a baseline with clear goals, are within 10 percent of cost and schedule targets, have a qualified project manager, and avoid duplication with OMB's E–Government efforts.

OMB Management Watch List. Of Commerce's 65 major IT investments submitted to OMB in the fiscal year 2008 budget, OMB placed 49 on its Management Watch List. All have been remediated and are no longer on the Management Watch List. Of the 49, 29 were taken off the list by December 2006, leaving 20 on the list. All but one were removed by March 2007; the last was removed in June 2007. To ensure that Commerce's senior management understood the importance of the Management Watch List and actively supported corrective actions, I briefed the Executive Management Team, which is Commerce's most senior executives, providing a status update routinely. During my weekly update to the Deputy Secretary, the most critical IT issues, including the Management

[1] The prepared statement of Mr. West appears in the Appendix on page 81.

Watch List updates were given, status briefed, and overall progress was tracked. Corrective actions included completing additional documentation necessary to demonstrate adequate planning and investment control, largely in the areas of security and privacy. Office of the CIO staff worked diligently with the operating units to research and develop additional explanatory material and to ensure that responses were consistent across the business cases.

Commerce attributes its success to the strength of its information technology capital planning and investment control process—this is also known as CPIC—and to its commitment to improve IT security.

Capital Planning and Investment Control. Commerce's CPIC process is built on a foundation of strategic and operational IT planning that is integrated with processes for the selection, control, and evaluation of IT investments.

The process begins with a request from my office to the operating units to develop a strategic IT plan within the context of maturing their capital planning and investment control processes. Strategic IT plans provide a framework for discussion and an opportunity for operating units to focus on the strategic use of IT resources to improve program delivery.

The Commerce IT Review Board advises the Secretary and the Deputy Secretary on critical IT matters, ensuring that proposed investments contribute to the Secretary's strategic vision and mission requirements and provide the highest return on the investment or acceptable project risk.

As part of its charter, the Commerce IT Review Board makes recommendations for continuation or termination of projects under development at key milestones or when they fail to meet performance, cost, or schedule criteria.

Project Management. Commerce recognizes the importance of effective project management to the success of IT investments. We have established a central source for project management expertise, advice, and guidance which focuses on four strategic initiatives. They are the establishment of standards and guidelines; providing project management services and support; providing Department of Commerce program and project managers with technical assistance; and mentoring, training, and guiding project teams.

In conclusion, since information technology expenditures constitute such a large portion of the Commerce annual budget, which is about 20 percent, or $1.7 billion, it is imperative that special management attention be given to the Department's proposed and continuing IT investments. This is done through the capital planning and investment control process, which continues to be strengthened to provide broader and deeper analysis of proposed new IT investments, projects under development, and projects that have completed deployment, as well as the overall performance of the portfolio. Where the cost, schedule, or performance goals of IT investments are not yet being fully achieved, the processes in place have detected the problems and directed corrective action.

Again, I thank you for the opportunity to appear before you, and I look forward to answering any questions that you may have.

Senator CARPER. Mr. West, thank you for that so much. I am going to now recognize Mr. Mintz for his comments. Thank you.

**TESTIMONY OF DANIEL G. MINTZ,[1] CHIEF INFORMATION OFFICER, U.S. DEPARTMENT OF TRANSPORTATION**

Mr. MINTZ. Chairman Carper, Ranking Member Coburn, other Members of the Subcommittee, thank you for the opportunity to appear before you today to discuss issues relating to the Department of Transportation's information technology programs. My name is Dan Mintz; I have been the Chief Information Officer for the Department of Transportation since May 1, 2006. In that capacity, my responsibilities include serving as the Vice Chair of the Department's Investment Review Board, which oversees all major IT investments for the Department.

I came to the government from Sun Microsystems. During my years at Sun, I managed IT programs similar in magnitude to those being discussed here today and understand the need for senior management review and oversight, ensuring that all risks are properly mitigated. Many of the lessons learned during my time at Sun have helped me to more fully appreciate the issues facing departmental IT program managers and what we, as a Department, need to accomplish.

My written testimony provides specifics about three IT investments that are included on the OMB Management Watch List and the OMB High-Risk List, and one of our projects designated by GAO as high risk. I would like to briefly mention here my five initiatives based on the lessons learned from those projects that we strongly believe will both improve ongoing program management and the way we are more effectively meeting mission needs overall.

First, we are in the process of establishing a Department-wide program management organization. This organization will establish systematic processes and requirements to enable a more consistent approach to program management throughout the Department.

Second, we will continue to ensure that those programs identified as high risk and high priority are reviewed by senior managers as well as the Investment Review Board when cost and schedule variances exceed the threshold of 10 percent.

Third, I am implementing a plan to effectively address both technical and functional performance. We will be creating performance milestones developed with more precise indicators tracking program success.

Fourth, we are addressing the issue of Earned Value Management, mentioned earlier in the first panel. This early-warning mechanism will further assist program managers in addressing risks.

And, finally, this year we developed an improved ranking of investments across the Department to better determine the "health of our investments" which we plan to update on a quarterly basis.

In conclusion, significant progress has been made and is continuing to be made to fully leverage information technology to meet the Department's mission. Significant challenges remain, including the need to continue to improve our program management skills, manage project risks and monitor program performance so that management can quickly and effectively mitigate issues before a

[1] The prepared statement of Mr. Mintz appears in the Appendix on page 97.

project becomes a troubled investment. Our experience is that when we develop transparent processes, collaborate with senior business owners and budget officials, and follow a consistent and robust project approach, we are able to keep most of the IT investments off the Management Watch List or have them quickly removed. When we do not accomplish one or more of those goals, the results are far less positive.

Because of the importance of many of the transportation programs to the Nation's economic well-being, we receive attention from many sources of oversight. Over the years we have learned to maximize the value of their input, however challenging their opinion may be. Again, I thank you for the opportunity to appear before the Subcommittee today, and I look forward to answering any questions that you may have.

Senator CARPER. Mr. Mintz, thanks. We thank you for your testimony. Mr. Duffy, you are recognized.

**TESTIMONY OF MICHAEL D. DUFFY,[1] DEPUTY ASSISTANT SECRETARY FOR INFORMATION SYSTEMS AND CHIEF INFORMATION OFFICER, U.S. DEPARTMENT OF THE TREASURY**

Mr. DUFFY. Mr. Chairman, Dr. Coburn, I appreciate the opportunity to appear before you to discuss the management of information technology investments. Like the other Federal agencies represented here today, the Department of the Treasury is diligently working to improve the management of its IT, especially those investments considered to be high risk. The Department has experienced its share of IT challenges. In response, Secretary Henry Paulson made IT management one of his top priorities when he took over the Department this past year. As a new member of the Secretary's management team, I am fully committed to improving our ability to effectively manage our IT investments to ensure business value from those investments.

Treasury has an IT portfolio that totals roughly $3 billion—about 25 percent of the Department's budget. Of the total, $2.4 billion funds 63 major investments; the remaining $560 million supports 222 "non-major" investments.

The Department and its bureaus rely significantly on information technology to carry out its extensive and varied mission. Our largest investments are, of course, at the Internal Revenue Service, who uses IT to administer the tax programs. The Department, however, also uses IT to support other critical purposes, such as analyzing financial intelligence information to combat terrorism.

Given the importance of Treasury's IT investments, the Government Accountability Office reviewed and issued a report on Treasury's IT management. The July 2007 GAO report found that Treasury has established many of the capabilities needed to select, control, and evaluate its IT investments. However, GAO also found several very significant weaknesses.

Due to these findings, GAO identified the need for Treasury to implement an executive-level review board to oversee IT investments throughout the entire lifecycle of the projects. GAO also recommended that Treasury implement a more comprehensive process

[1] The prepared statement of Mr. Duffy appears in the Appendix on page 108.

by which to manage all IT investments, irrespective of size, scope, or dollar value.

The Department concurred with the GAO recommendations and began to immediately address the issues raised. I strongly support these steps, and I believe this is a clear indication of the commitment of the Department's leadership to rapidly and comprehensively improve Treasury's management of IT.

As the new CIO, I have taken particular interest in GAO's findings and recommendations. I believe regular engagement of our Department and bureau executives and the continuous attention to the progress of IT investments are integral to our Department's successful planning, implementation, and use of IT.

In the coming months, the Department intends to take several key steps. Foremost, we will revitalize an Executive Investment Review Board. We will do that in the first quarter of this upcoming fiscal year. Doing so will bring greater executive involvement and accountability into Treasury's management of IT and will further ensure IT portfolio decisions are driven by our business requirements and strategies. We also intend to better leverage existing management tools and processes that can be used to improve investment management capabilities.

Notwithstanding the planned changes, I note that the Department has already taken some steps. To ensure that all IT investments receive comprehensive oversight, the Department began implementing process changes this past summer to ensure that all of our "non-major" investments go through a formal select and control process.

In summary, the Department has made strides in the past year to improve the management and performance of its IT resources. Work does remain to be done. However, these efforts and the actions we have planned to engage executive stakeholders will result in effective IT management at the Department of the Treasury, and in so doing, Treasury IT programs will provide value-added services to the bureaus and offices performing the Treasury missions.

Thank you again for the opportunity to participate on this panel. I would be happy to answer any questions.

Senator CARPER. Thank you, Mr. Duffy. Mr. Charbo, you are recognized.

## TESTIMONY OF SCOTT CHARBO,[1] CHIEF INFORMATION OFFICER, U.S. DEPARTMENT OF HOMELAND SECURITY

Mr. CHARBO. Thank you, Chairman Carper, Dr. Coburn. I appreciate the opportunity to address you on the Department of Homeland Security's inclusion on the Office of Management and Budget's High-Risk and Management Watch Lists.

DHS currently has 20 systems on the OMB Management Watch List from the 105 major investments submitted to OMB in the fiscal year 2008 budget. We are actively managing 9 out of the 20 for removal from the list. These range from issues relating to cost/schedule, privacy statements, and security. The remaining invest-

[1] The prepared statement of Mr. Charbo appears in the Appendix on page 110.

ments on the list have been remediated, and we have submitted documents to OMB for removal.

DHS is managing 33 information technology investments on the OMB High-Risk List. Of these, 19 represent DHS' participation in OMB's E–Government Initiative or Lines of Business with a migration component or where we are the managing partner of the initiative and operate as a shared service provider. The remainder, we have confirmation that issues are addressed, or we have submitted to OMB information addressing the high-risk list and are waiting future removal.

We have made progress to improve capital planning, acquisition planning, procurement oversight, alignment with enterprise architecture, and stronger policies for IT security. Collectively, this improved investment review process methodology has brought planning, budget, program management, IT, and acquisition planning into a stronger alignment.

In March, Secretary Chertoff issued Management Directive 007, which operates greater oversight to the Department's CIO for IT issues relating to budget, acquisition, architecture, and performance ratings of component CIOs. We have seen a response and expect to see more improvements in IT performance as the Department matures.

DHS has also worked to centralize information technology processes and avoid unnecessary duplication by requiring adherence to the architecture for IT investments over $2.5 million, which was also appropriation requirements. To date, we have reviewed over $1.8 billion in acquisitions prior to committal of funds.

I cannot emphasize enough the importance of good policy and a strong relationship of the CIO, the CFO, and the CPO in achieving any goals for improved management of IT and, more importantly, program performance. DHS has benefited by such a relationship under the direction of the Under Secretary for Management.

This concludes my comments, and I welcome questions. Thank you.

Senator CARPER. Thank you, sir. Mr. Brinkley, last word.

**TESTIMONY OF PAUL A. BRINKLEY,[1] DEPUTY UNDER SECRETARY FOR BUSINESS TRANSFORMATION, U.S. DEPARTMENT OF DEFENSE**

Mr. BRINKLEY. Thanks. Chairman Carper, Senator Coburn, it is my honor to have the opportunity to appear before you to discuss Defense Business Transformation and its associated information technology investments.

Defense Business Transformation is not an easy task. The size and complexity of the Department of Defense, combined with its unique mission, present challenges that are not faced by other organizations undergoing transformational change. Despite these challenges, I believe the progress the Department has made at all levels under the leadership of Deputy Secretary of Defense Gordon England over the past 3 years has been remarkable.

Fundamentally, business transformation requires a number of things: Leadership, commitment, and a strong investment manage-

[1] The prepared statement of Mr. Brinkley appears in the Appendix on page 116.

ment and governance structure, a sound enterprise-level strategy for transforming business processes and the culture that our people work within, and a solid relationship with independent organizations that can be unbiased arbiters of success or failure. Most importantly, and a key missing factor in many governmental transformation efforts, including prior efforts at DOD, is an awareness that IT projects struggle or fail because of a failure of management to confront necessary changes to processes, policies, and statutes. IT projects are too often sold as quick fixes to core management problems that are difficult for leaders to confront and resolve.

Over the last 3 years, DOD has built a foundation to ensure these business issues are addressed before IT investments are made. Today, the Department's top operational leaders are the champions of our organizational transformation. The Defense Business Systems Management Committee, established by statute, is chaired by Deputy Secretary England and associated investment review boards that provide strong investment management and overall transformation governance and ensure investments are aligned to business strategies.

The Business Transformation Agency, established by the Deputy Secretary of Defense in 2005, provides an accountable organization for all of our DOD-wide business and system improvement efforts. It is staffed with a combination of best and brightest career civil servants and highly qualified experts and others, using hiring authorities given to the DOD by Congress.

The Enterprise Transition Plan, produced biannually by the Business Transformation Agency, approved by the DBSMC, provides a strategic plan and emphasizes business process and system improvements and cultural change, and it clearly articulates 6-month milestones for measuring progress.

Finally, we have developed a very productive relationship with OMB and the GAO based on those clear metrics, proactive engagement, and responsive cooperation.

We have successfully developed and continue to evolve the Business Enterprise Architecture and its associated federation strategy. For an organization the size of DOD, these are critical factors. We are driving the Department-wide adoption of continuous process improvement principles, and we are implementing Lean Six Signal methodologies. This addresses business issues that IT issues often suffer from.

We are improving acquisition and fielding processes for information systems through developing what we call the Business Capability Lifecycle. This is a new acquisition process for business systems that will resolve longstanding challenges that have impacted delivery of business capabilities in a timely, well-informed manner.

Under the rules of the BCL process, initial operating capability of an IT program must be reached within 12 to 18 months of the contract award, or else business cases will not be approved. This better aligns IT projects with technology industry innovation rates that are moving much faster today than our ability to field capabilities within government.

Two major systems programs critical to the DOD that have directly benefited from this approach are the Defense Travel System and the Defense Integrated Management Human Resource System,

called DIMHRS. By confronting and addressing policy and process issues long ignored, the Defense Travel System has addressed key issues that have been highlighted by GAO and the Congress repeatedly. And it is finally realizing its full potential as a source of lowest fare, financially efficient travel management for the Department. Using a similar approach, the DIMHRS program has been restructured and is on a path to resolve longstanding military personnel pay issues for the Army and Air Force beginning in 2008.

There are many similar success stories emerging for the DOD. Our efforts at business transformation in the DOD will take years to complete. Our goal is to sustain this positive momentum beyond administrations and continue our ability to provide our customer, the American warfighter, with business practices that best enable their challenging mission and to provide Congress with agile financial transparency and the accountability the American people rightfully expect from their government.

Thank you. I look forward to your questions.

Senator CARPER. Thank you, Mr. Brinkley. In fact, I thank all of you.

Who is here from Treasury? Mr. Duffy. And how long have you been there?

Mr. DUFFY. Nine days, sir. [Laughter.]

Senator CARPER. Perfect. We had at least one hearing in the last Congress on the issue of the tax gap, and Mark Everson, who was until fairly recently the Commissioner of the IRS, has now gone over to run the Red Cross, but he has been before us a couple of times in the last 2 years. We talked about, among other things, the tax gap.

I do not know if you have had enough time in 9 days to figure out if there are any IT projects that you all are working on that would help us know the gap between the taxes that are owed, that ought to be collected, and those which are being collected. We are led to believe that the tax gap is—how much is it, Senator Coburn?

Senator COBURN. Three hundred billion dollars.

Senator CARPER. And anything we can do to narrow that so that people do not like to pay taxes, but it is sort of rubs salt into those wounds when they feel like they are paying their fair share and other people are getting away scot free. So what have you got going on in that area? And is there anything in particular that we not just in this Subcommittee but we in this Senate can help to make sure that we go after those scoundrels and make sure that you have the tools you need to get them?

Mr. DUFFY. Unfortunately, Mr. Chairman, I have not had the opportunity to get the briefings in-depth on that, and I would like to get back to you in writing.

Senator CARPER. Would you do that? That would be much appreciated.

The second question I have really deals with—as you said, Senator Coburn, and Senator Akaka—the issue of how do we attract and retain good talent to work in this field for the Federal Government when they can make, by most observations, a fair amount more money in the private sector? I think it was Ms. Evans who indicated that, well, she likes the job, she has been there 5 or 6 years, at least, and she likes it because she gets to work on cutting-

edge projects. She gets a sense of civic pride in knowing that she is doing something good and meaningful for our country. And I can appreciate that. In fact, I think we can both appreciate that.

What are you all seeing that is working in your own departments, in your own agencies, that enables you to attract and retain good people? How can we learn from those experiences? What is working? Please, Mr. West?

Mr. WEST. Yes, my experience in the 23½ years I have had in government is that most of your individuals want to look for challenges. It is not so much about the pay, but they want to be challenged on exciting projects, and they want to be rewarded and recognized at the end of the day. So I think we need as a government to recognize our people more and to continue to challenge them as best we can on exciting projects, but at the same time holding them accountable.

Senator CARPER. All right. Good answer. Thank you.

Others, please. Mr. Mintz, you were at Sun Microsystems for, what, 10 years?

Mr. MINTZ. Almost 11 years.

Senator CARPER. OK.

Mr. MINTZ. And then all around the Washington area, different private companies. High school was the last time I was in government.

One of the things that government brings that many of the jobs in private industry do not is a sense of mission. And I think one of the issues is how do we convey to people, particularly young people, that advantage. One of the things we are doing, we are working—GSA has a program called IT Shadow Day where we invite high school kids in, and I know it has become a very active program, where we introduce them and take them around, and they get some experience with government employees as to how exciting it is. I think people underestimate the fact that a lot of the younger people are looking also for meaning in terms of their job, and that is something I think we have to emphasize.

The other thing, our Deputy Secretary has been emphasizing things like telework and flexibility in terms of job performance. I think increasing that kind of flexibility helps also because, again, a lot of the younger people today are looking for flexibility in terms of how they come to work or are able to work out of their house.

Senator CARPER. One of the ways we identify good talent in our business in the Senate is through interns. We have undergraduate and graduate student interns who come in not just in our Washington office, but we have three offices in Delaware. We will have interns there throughout the course of the year. We look for the interns that are especially energetic, enthusiastic, bright, committed, and when they have graduated, we keep track of them. And having developed that relationship, we know what their work ethic is and what their capabilities are. They know how we work and how we operate. And when we have an entry-level position, we go after them. We have kept track of them. I do not know if you all do any of that, but if you do not, you may want to consider it.

Other ideas, Mr. Duffy?

Mr. DUFFY. Actually, along those lines, Mr. Chairman, there is a program that I believe is run out of the National Science Founda-

tion. It is called the CyberCorps Program. When I was at the Department of Justice, we used that program to bring in a number of young, talented people who are interested in the IT realm with obviously a bent toward IT security. That is one that I think has been very effective.

I believe that Mr. Powner during the first panel mentioned the IRS' critical pay authority and the ability that they have had to bring in some very talented people from the private sector to help IRS begin the process of their modernization and their evolution. And then, of course, I would have to echo the comments of my colleagues here, some of the things that they have talked about in terms of the challenges.

Senator CARPER. Good. In fact, going back, as congressman, governor, and senator, I have had four chiefs of staff over the last 25 years; two of them started off as interns.

Mr. Charbo.

Mr. CHARBO. Yes, sir. As you know, DHS is a tough place to not only attract people but to retain them. So we have looked at some creative ways to attract and retain. First of all, the partnerships, I can again emphasize that more. In this case, our chief human capital officer has really taken on that role for us to try to attract better ITs. One example, we have run some *Washington Post* ads where we have attracted hundreds of applicants, where we actually can draw that certification, and then hire directly from those certifications and move that across the Department from component to component, focusing on IT security.

We are focusing on giving a better environment for those employees once they get here. We are dispersed particularly from the headquarters viewpoint. It is tough to retain people in some of the situations that we put some of the employees into. So we are pretty focused on trying to develop that. And then certain benefits in terms of payments of loans, etc., and in terms of attracting students. We use interns as well. My office directly uses interns.

So it is really a matter of getting out of the box of the typical government hiring processes and certification and looking for better ways to do it.

Senator CARPER. Good. I know there is a program in the Senate where our employees can continue to improve their educational skills, and they get financial help in doing that. In passing the Higher Education Act, which I think the President has just signed into law, there may be a provision there as well which plays to our advantage in the Federal Government in attracting and retaining talent, offering as an incentive to people some help in improving their academic credentials.

Mr. Brinkley, do you have anything you wanted to add?

Mr. BRINKLEY. The only thought, sir, is the personal experience we have had with this in the DOD and MAPS. I am sure my colleague from Sun Microsystems can comment on this. We are not going to retain a skilled technical workforce, we are not going to be able to hire a young engineer and get him to stay for 30 years in the government. The trick is to create an environment, as they have in the technology sector, where you can come in and in a year to 2 years do something significant so that when you move on your career moves on. And that is the way the technology sector con-

tinues to evolve. It leads the world in terms of innovation, and I think there is still a disconnect between expectations of what the Federal workforce must become—the people who are in it have been in it for many years, and they are proud of that service, and they should be proud of that service. But the technology world now is one in which you have a constant rotation of people in and out of companies, and they move on to another company. And the trick is to create an environment where a young person or anyone can come in and make an impact in as quick amount a time as possible.

So increasing and accelerating the ability to deliver value in a job, they will sacrifice the funding for the opportunity to serve, but they will not sacrifice the funding if it is going to take them 5 years to actually make something happen. The best and brightest do not want to work in an environment where it is going to take 5 years to feel the capability. They want to work in an environment like they can get in the private sector where they can do it in 6 months or 12 months. So to us, that is a major focus, how do we shrink and tighten the ability for somebody to make a difference, and in doing that create capabilities that the Department needs and also make it a desirable place to work.

Senator CARPER. Good. Those are all, I think, very constructive statements, and we appreciate them. I have some questions I am going to submit for the record, and Dr. Coburn has graciously offered to chair the hearing until its conclusion. You all should be out of here by suppertime.

Senator COBURN. I am sure we will be out of here before suppertime.

Senator CARPER. Thank you, sir. And thank you all for joining us today and for your service.

Senator COBURN [presiding]. You are all Chief Information Officers. Do you sit down with OMB at this CIO Council? Do each of you?

[Witnesses nod yes.]

Senator COBURN. Is there a CIO for the Pentagon?

Mr. BRINKLEY. Yes, there is. He does sit on that council.

Senator COBURN. He does sit on that council. Is there anything you have gleaned from one another that has been beneficial? Are there things that you have learned from one another in that council that have been beneficial other than working through with OMB to get your stuff off the Management Watch List and the high-risk list?

Mr. Charbo, you have been before us before.

Mr. CHARBO. Yes, sir. There is always an agenda for the council. Typically, it is an item of the moment or trying to drive a lot of the larger initiatives. There is always that member time towards the end where it is issues—where I may be having a situation trying to resolve something. I may want to try to steal some employees from some of my brethren here as well. So, there is a lot of dialogue and discussion within the council. It also builds the relationships so that we can share war stories, best-case examples, best practices, worst-case examples, worst practices, and not go down some of those roads.

Senator COBURN. OK. Let me get specific for a minute. If I look at the Department of the Treasury, you all rebaseline almost 50 percent of your IT projects. Why?

Mr. DUFFY. I do not have a good answer for you at this point in time. The reality is, as GAO identified that we have had——

Senator COBURN. These are your responses.

Mr. DUFFY. I know.

Senator COBURN. This is not GAO——

Mr. DUFFY. No.

Senator COBURN. We sent a letter to each agency, you all sent us one back, and we put this data together based on every agency in the Federal Government.

Mr. DUFFY. Absolutely.

Senator COBURN. And we had it confirmed by OMB that she saw the same thing.

Mr. DUFFY. And I do not refute the data. What I was going to say is that GAO identified, very correctly, that we have had issues in the past with the planning of the IT investments. The absence of good planning ultimately leads to needing to rebaseline.

Senator COBURN. OK. I have a couple of questions. I am going to ask them, and if you cannot answer them, it is fine.

Last tax season, the fraud detection software was not available, and yet you all dumped the old fraud detection software. So last tax season, we had no fraud detection software. Is there going to be fraud detection software this year?

Mr. DUFFY. I will have to get back with you with a written answer on that one, sir.

Senator COBURN. OK. Well, it is worrisome that you do not know that the answer is yes. That concerns me about it.

Just for all of you, on your project managers or your managers who are in charge of IT under you, is there either an incentive or a penalty system when there is poor planning? You testified that you have cleared it all up in terms of the Management Watch List. The Management Watch List is about poorly planned projects. But we are into this, the third and fourth year on these Management Watch Lists. So are they moving the ball on you at OMB in terms of what they are requiring? Or is there not a learned cycle here where we understand what they want and are just not performing? And is there an incentive system for the people that work under you on these to get it right or a penalty if they do not get it right? Is there a cost consequence for having a failed IT project? Anybody want to answer? And the Pentagon is really different, and let me tell you why. That is why we have business transformation over there. They have 100 different computer systems that do not talk to one another, and they cannot even get to ground zero—I guess you are getting to ground zero now through the Controller's Office, but there is a big difference in the Pentagon and almost every one of our other agencies in terms of communication capability.

So anybody want to answer that? Thanks, Mr. Charbo.

Mr. CHARBO. You were going to get to me eventually, so I figured I would take a shot. In terms of the program managers that directly report to me—which a majority of the program managers do not report to me in DHS. I would venture to say that is probably the case for most of the CIOs here and in government.

There is a direct consequence. That is part of our performance rating. So you set those measures in the performance plans. If they do not meet those you have to hold them accountable.

Senator COBURN. How are they held accountable?

Mr. CHARBO. Directly through their bonus program, their evaluations, which could lead to dismissal. If it is an SES, they could be dismissed. If it is a GS level, it is a little bit different, but it could lead to dismissal if they continue to fail to meet expectations.

Senator COBURN. So is that applied, for example, in your Department?

Mr. CHARBO. For this piece, under those who report to me, it is. We have a track record. A lot of times, those people will see the writing, and they move on.

In terms of what the Secretary has done from the management directive, this year is the first year that I will actually specifically write recommendations on the performance evaluation for each of the CIOs within the components. I will preface that to say that in some cases some of these programs do not report directly under the CIO, even in the components. We are working to change some of that.

Senator COBURN. But are each of your agencies—as Chief Information Officers, are you copied, are you made aware on a routine basis, what is happening on these projects?

Mr. CHARBO. At DHS now for—I talked about an improved investment review. What we have done, what the Under Secretary has done, for the ones that are on the front page, typically, or that are very high focus, we have put an integrated team together. So the CIO is there, the CPO is there, the CFO is there, and we are working—because I will agree that the schedules—typically the schedules get—are very optimistic in terms of setting some of the program deliverables, and most of the programs that we are seeing, I think that would attribute to a lot of the cost/schedule variances that we see.

So at this point, what we do is with the program manager we set those expectations. If we are having to go back and reset the expectation with our leadership in terms of the true price, the true schedule now for some of these investments, we are doing that. We are carrying that bad news forward to the Congress, to OMB, to the leadership on a lot of these investments.

So that is a change that is happening in DHS with a lot of the larger ones. That is the group that we focused with the program.

Senator COBURN. How about the rest of you?

Mr. DUFFY. In Treasury, and as well as at Justice, where I was previously, what Mr. Charbo described as the overall environment is very much the same. There has been within the last year more attention paid, particularly at the SES level, to put specific performance criteria into those plans and then hold the executives responsible.

As for my own office—I am all of 9 days into this job, but I am going to get an opportunity to have some influence on the next round, I personally believe in putting those types of criteria into performance plans and holding people accountable. That is where we are at today.

I think your comments, however, and your questions are very good ones, and they are opportunities for us to look at how do we incentivize people, both negatively as well as positively.

Senator COBURN. Anything different?

Mr. BRINKLEY. Dr. Coburn, I think the question of accountability is a question of who we are holding accountable. I think it is a very common knee-jerk tendency to drag a PM through a wire brush session when they miss a milestone or they do something. Yet it is almost never the responsibility of the PM. PMs get handed projects that are generated by functional leaders, and it is the functional leadership that we have put accountability in place for. So our efforts under Secretary England have been focused on monthly reviews of status where we do not bring the PM in to give status; we bring the person who is sponsoring the project in to give status. And that individual is the one who drives the budget, and he is the one who drives the requirements. And if the project is off the rails, it is usually because something has gone wrong in terms of requirements or change or statute or policy, and, again, as you are very familiar with the Defense Travel System. We have many examples where failure to confront the brokenness on the front end led to failure on the back end with the project manager trying to knit something together to deal with a broken process.

Senator COBURN. And it was not the project manager that had——

Mr. BRINKLEY. Absolutely. So for us, accountability applied to the leadership that is generating the requirement, and this funding the program has made, I think, a lot of our progress possible over the past 2½ years.

Senator COBURN. You all do not know about DTS. Mr. Brinkley does and a lot of other people do. This is something we have been looking at for 2½ years, and it is a great example of how not to do it—in other words, not clear goals, not knowing what you wanted to get, and having a cost-plus program that originally cost supposedly $30 million—and I think it has ended up at $670 million. And you extrapolate—and we are seeing that across agencies. We are seeing that in Commerce. The Census has no fixed-price contracts. They are all cost-plus. And the contracts that were issued were kind of—well, we are kind of guessing what we want. Why don't you develop what we think we want? And so what we did was have very poor planning. And at the same time, we did not put any of the efforts on an online census, which is IRS, Treasury—what is it, 55 percent now filed online with secure data? Tremendous. And so the capability was out there, but we did not have the vision or the leadership or the management to get that done to save this money. We gave your Assistant Secretary information that the private sector, in terms of mailing and Internet, can do it for one-eighth of what the Census can do it. And I think you may have actually seen that. That was a company we asked to prepare it who competes with you all in lots of other areas. But it just goes to show you that if, in fact, we will plan and we really know what our goals are, we identify what our goal really is rather than saying we think this is what we want. We should not go forward until we know what we want.

And so I appreciate you guys being in the positions that you are in. You make a big difference—$65 billion of which about $14 to $15 billion is really at risk, which in this day and age, if we can make it not at risk and we can convert cost-plus contracts to fixed-price contracts, you will have a little more leverage to do other things within your agencies rather than this.

I do not mean to sound that I am not appreciative of what you all do. You all are managers. I know what you are doing, and the goal is there. We have to get consistent on it.

Let me just ask you, Mr. West, right now GAO is real concerned about IT on the census. Can you give me a comfort level that is different than what GAO has? Since you are kind of over that, are you feeling good about that?

Mr. WEST. I feel good about the leaders that we have in IT out there. Having been involved in the census—I was heavily involved in the 1990 census, spent 8 years at Census, so I actually have a really good feel for what goes into a decennial. A lot of those same folks have been around for four or five censuses. They are using the handhelds this year. As you know, they went with the Harris contract. I feel comfortable as they move forward. I have been heavily involved in a lot of their briefings. I do have a comfort level that they are going to make this work. It has been a challenge as you know, but I feel that they have the right people there—you have provided the attention to really make them accountable as we move forward.

Senator COBURN. OK. Just one final thing. I want to ask about DOT and the telecommunications at FAA as well as the traffic control programs. Those are both big programs. There has been a lot said.

Are you all being oversighted by other subcommittees, both in the House and in the Senate, in terms of the traffic control? Have you come and made a presentation to Congress on those IT programs?

Mr. MINTZ. Well, the FAA has. Most of my personal interaction has been directly with GAO. When I first came here, I actually reached out to GAO, and before any of the investigations came on the table, and asked them to come over to figure out how best to work with them. And then I have worked with now the former administrator, Marion Blakey, and the FAA people set up a regular program with GAO to look at the air traffic control system and working on how to get it off the GAO High-Risk List, which is a little bit different issue than the OMB one.

Senator COBURN. Right. Is there anything that any of you all would want us to do that would be helpful in you accomplishing what you are trying to do? I have had quite a few experiences on different things with the Defense Department's modernization, and I feel real comfortable they are moving. It is slow, but it is moving. Are there other things that we can do or areas we need to look into that will make you more effective, give you a greater tool? Is there a tool that we need to provide that will allow you to manage more efficiently and get better results as you do your job?

Mr. MINTZ. Well, there are two things that I guess I would encourage you to continue to do. First of all, the emphasis on transparency, one of the things that is certainly true in terms of my pri-

vate industry experience and is certainly true here in the government is that the more transparent we can make this and the more visible in public that we can make all the information, the better off we are, because a lot of the problems surface, whether we like it or not, when we make all the information public because intermediaries that are interested in the topics look at them closely and hold us accountable.

The other thing, some of the conversation you had in the first panel, I think the encouragement with OMB is a good one and with GAO is a good one, that we need them to continue to be aggressive. I think, at least I know speaking just for Transportation, our challenge is to internalize the OMB directive and make it true within the Department.

Senator COBURN. Make it a culture.

Mr. MINTZ. There is a tendency, when I first came, to look at OMB as sort of the parent, that if OMB said it was wrong, then we would do something about it. But if they did not say it was wrong, we sort of went on.

And the focus that I have tried to bring and I think is being adapted is we have to be OMB, that is, we have to integrate these lessons into the culture and change the internal behavior because it is the right thing to do.

So the more I think people like yourself focus on making all this information transparent will force changes in that kind of——

Senator COBURN. Well, you all know January 1 of this year, every penny you spend other than for security is coming up. It is going to pop up. If it is not there, we are going to be having hearings on why it is not there. And by September of next year, all the subcontractors all throughout the Defense Department, all throughout every agency and all the sub-grantees, it is all going to be there. We are going to know who got it, how much they got, and what they did with it. So it is going to make us better. It is going to make us all better.

I want to thank each of you for the job you do, the service to our country, for coming and testifying. You will probably get some questions from some of the Members of the Subcommittee. We would love to have you respond to those in 2 weeks.

With that, thanking you for your service, the hearing is adjourned.

[Whereupon, at 4:43 p.m., the Subcommittee was adjourned.]

# APPENDIX

---

STATEMENT OF
THE HONORABLE KAREN EVANS
ADMINISTRATOR FOR ELECTRONIC GOVERNMENT AND
INFORMATION TECHNOLOGY
OFFICE OF MANAGEMENT AND BUDGET
BEFORE THE
SUBCOMMITTEE ON FEDERAL FINANCIAL MANAGEMENT, GOVERNMENT
INFORMATION, FEDERAL SERVICES, AND INTERNATIONAL SECURITY
SENATE HOMELAND AND GOVERNMENTAL AFFAIRS
COMMITTEE

September 20, 2007

Good afternoon, Mr. Chairman and Members of the Subcommittee. My remarks will focus on the Administration's strategy and progress in tracking, analyzing and evaluating the Federal government's information technology (IT) investments.

The President proposed to spend roughly $66 billion in FY2008 for IT and associated support services to bolster the multiple and wide-ranging missions of the Federal government. When well executed these IT investments help improve the ability of the government's programs and operations to more effectively deliver services, products, and information to the public.

OMB facilitates the process by which agencies successfully and securely plan, implement, and manage their IT investments. In particular, you have requested a discussion of the effectiveness of the tools we employ throughout the year to oversee major capital investments in information technology. After providing you with an overview of the entire process, I would then like to discuss two specific tools used -- the "Management Watch List" and our "high-risk list". In general, OMB executes its responsibilities using various methods such as:

- Reviewing agencies' annual budget submissions;
- Engaging with agencies throughout the year on such issues as the electronic government scorecard of the President's Management Agenda (PMA); and
- Monitoring specific projects of interest to OMB.

**IT Investments and The Budget Cycle**

Each year, OMB updates and issues guidance, called Circular A-11, to the agencies for preparing, submitting and executing the budget.[1] Agency submissions must reflect the policies of the President, including implementation of the President's Management Agenda initiatives.

Two sections of this Circular provide additional guidance about IT funding requests specifically targeted at agency project planning.[2] Agencies must answer direct questions on performance

---

[1] Circular A-11, "Preparation, Submission, and Execution of the Budget", http://www.whitehouse.gov/omb/budget/fy2008/ .
[2] Section 53, "Information Technology and E-Government" and Section 300, "Planning, Budgeting, Acquisition, and Management of Capital Assets."

goals and measures, project management, alternative analysis, Enterprise Architecture earned value management, security plans, and privacy impact assessments.

Agencies must also include in their response supporting details in a "Capital Asset Plan and Business Case" (business case), or OMB Exhibit 300. Please note business cases are primarily executive summaries of detailed planning documents. Performance information is obtained and evaluated via other metrics which I will describe shortly. OMB reviews and evaluates these business cases as a part of our overall assessments of an agency's entire budget submission. Our summary of where agencies stand with their planning for IT investments is reported as part of Analytical Perspectives, Chapter 9, "Integrating Services with Information Technology" in the President's FY2008 Budget.[3]

This report is an OMB requirement under the Clinger-Cohen Act. As I have discussed in previous testimony on similar topics, the Clinger-Cohen Act establishes processes for executive agencies to analyze, track, and evaluate the risks and results of major capital investments for information systems.

It is important to note, OMB is but one of the intended audiences for the business case – the primary audiences are the agency officials and their investment review boards. These managers should use the business cases to effectively manage their own IT portfolios and submit to OMB only those investment requests meeting criteria specified in law and or OMB policies and supporting the priorities of the Administration.

Agencies submit their overall Agency IT Investment Portfolio as OMB Exhibit 53. For the FY 09 budget cycle, we have modified the exhibit 53 adding a "High Risk Project designations" as a new investment category for projects that are only portions of a larger consolidated investment. For the first time agencies will also identify whether or not each individual investment in their exhibit 53 is included on their quarterly High Risk List report.

**Using the President's Management Agenda Scorecard to Assist Oversight**

Each quarter agencies receive a scorecard reporting their progress and status in achieving Government-wide goals under the PMA. OMB analyzes information provided on business cases when evaluating agencies' activities pertaining to the Electronic Government component of the scorecard.

We deliberately included a criterion for "acceptable business cases" to emphasize its importance in effective IT investment management. It is just one of a number of components agencies must satisfy to get to green (or yellow) for the scorecard. Agency scores are posted quarterly at http://results.gov/agenda/scorecard.html.

**The Management Watch List in the President's FY2008 Budget**

[3] http://www.whitehouse.gov/omb/budget/fy2008/

The information included in each business case ultimately helps OMB and the agencies ensure effectively planned IT investments and improve portfolio management. Business cases reflecting one or more planning weaknesses are placed on the "management watch list" and are targeted for follow-up.

The FY2008 President's budget proposes approximately $66 billion for IT and associated support services. Of the 840 business cases submitted this year, there were initially 346, valued at least $14.4 billion, not meeting the criteria for success as defined in the President's Management Agenda Scorecard. However, agencies, with the support of OMB, have an opportunity to remediate these deficiencies and monitor progress after the initial reporting period. This year, OMB collaborated with the President's Council on Integrity and Efficiency as well as relevant agency Inspector Generals to assist with the independent verification and validation for areas of concern. I am pleased to report that as of August 2007, there were 136 business cases remaining on the Management Watch List with at least $8.6 billion in projected IT spending for FY2008, a decrease of $5.8 billion from the list published in February 2007.

**Improving Project Performance with the High-Risk List**

Having described a business case as a planning document and the Management Watch List as a tool used by OMB to track agency project planning, I would also like to describe another indicator – the high risk list. The high risk list is used to analyze and evaluate actual project execution and performance.

Over the past several years, agencies have striven to improve the quality of their IT project planning and justification, but the realization that it is important to continue this improvement during the execution phase of the IT project is a more recent development. OMB guidance[4] now describes specific procedures to assist agencies' improvement of project planning and implementation of earned value management.

The objective of our analysis is to manage the risk associated with the IT project each quarter to achieve the intended outcomes. Each quarter agencies evaluate and report to us on the performance of high risk projects. These projects are considered *high*-risk, requiring special attention from the highest level of agency management and oversight authorities due to the size, complexity, and/or nature of the risk of the project, but are not necessarily *at*-risk. For example, a successfully performing project may still be classified as high-risk due to exceptionally high costs and or complexity. For example, all e-government initiatives have been determined to be "high risk" and therefore are reported on agency quarterly reports.

Oversight authorities and agency management have tangible data on the performance of projects at least quarterly to better ensure improved execution and performance. Agency managers and oversight authorities should know within 90 days if a project is not performing well. OMB then works in partnership with agencies and GAO to address deficiencies in high-risk programs. It is therefore a collaborative effort to manage project risk and avoid problems should they occur or catch them early before taxpayers' dollars are wasted.

[4] http://www.whitehouse.gov/omb/memoranda/2005.html

The "high risk list" approach is separate and distinct from the "management watch list" since it presents oversight authorities with information differing in focus, timing, and expected results. It is not designed to replace pre-existing oversight and internal agency processes, but rather to supplement and complement them.

This concludes my presentation of the Administration's strategy and progress to date in analyzing, tracking, and evaluating the results of the government's IT investments.

United States Government Accountability Office

GAO

Testimony

Before the Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, Committee on Homeland Security and Governmental Affairs, U.S. Senate

For Release on Delivery
Expected at 2:30 p.m. EDT
Thursday, September 20, 2007

# INFORMATION TECHNOLOGY

# Further Improvements Needed to Identify and Oversee Poorly Planned and Performing Projects

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

GAO
Accountability * Integrity * Reliability

GAO-07-1211T

September 20, 2007

GAO
Accountability-Integrity-Reliability

# Highlights

Highlights of GAO-07-1211T, a testimony before the Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, Committee on Homeland Security and Governmental Affairs, U.S. Senate

## INFORMATION TECHNOLOGY

## Further Improvements Needed to Identify and Oversee Poorly Planned and Performing Projects

### Why GAO Did This Study

The Office of Management and Budget (OMB) plays a key role in overseeing federal information technology (IT) investments. The Clinger-Cohen Act, among other things, requires OMB to establish processes to analyze, track, and evaluate the risks and results of major capital investments in information systems made by agencies and to report to Congress on the net program performance benefits achieved as a result of these investments. OMB has developed several processes to help carry out its role. For example, OMB began using a Management Watch List several years ago as a means of identifying poorly planned projects based on its evaluation of agencies' funding justifications for major projects, known as exhibit 300s. In addition, in August 2005, OMB established a process for agencies to identify high risk projects and to report on those that are performing poorly.

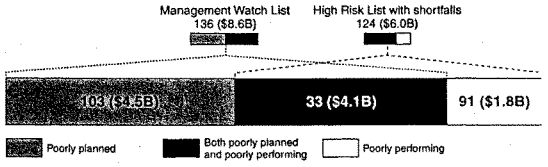
GAO testified last year on the Management Watch List and high risk projects, and on GAO's recommendations to improve these processes. GAO was asked to (1) provide an update on the Management Watch List and high risk projects and (2) identify OMB's efforts to improve the identification and oversight of these projects. In preparing this testimony, GAO summarized its previous reports on initiatives for improving the management of federal IT investments. GAO also analyzed current Management Watch List and high risk project information.

To view the full product, including the scope and methodology, click on GAO-07-1211T. For more information, contact David A. Powner at (202) 512-9286 or pownerd@gao.gov.

### What GAO Found

OMB and federal agencies have identified approximately 227 IT projects—totaling at least $10.4 billion in expenditures for fiscal year 2008—as being poorly planned (on the Management Watch List), poorly performing (on the High Risk List with performance shortfalls), or both. The figure below shows the distribution of these projects as well as their associated dollar values.

**Poorly Planned and Poorly Performing IT Projects (as of June 2007)**




Source: GAO analysis of OMB data.

OMB has taken steps to improve the identification and oversight of the Management Watch List and High Risk projects by addressing recommendations previously made by GAO, however, additional efforts are needed to more effectively perform these activities. Specifically, GAO previously recommended that OMB take action to improve the accuracy and reliability of exhibit 300s and consistent application of the high risk projects criteria, and perform governmentwide tracking and analysis of Management Watch List and high risk project information. In response to these recommendations, OMB, for example, started publicly releasing aggregate lists of Management Watch List and high risk projects by agency in September 2006 and has been updating them since then on a quarterly basis. However, OMB does not publish the reasons for placing projects on the Management Watch List, nor does it specifically identify why high risk projects are poorly performing. Providing this information would allow OMB and others to better analyze the reasons projects are poorly planned and performing, take corrective actions, and track these projects on a governmentwide basis. Such information would also help to highlight progress made by agencies or projects, identify management issues that transcend individual agencies, and highlight the root causes of governmentwide issues and trends. Until OMB makes further improvements in the identification and oversight of poorly planned and poorly performing IT projects, potentially billions in taxpayer dollars are at risk of being wasted.

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss the federal government's key processes for improving the management of information technology (IT) investments totaling $65 billion for fiscal year 2008. Effective management of these investments is essential to the health, economy, and security of the nation. The Office of Management and Budget (OMB) plays a key role in overseeing federal IT investments. In particular, as required by the Clinger-Cohen Act, OMB must establish processes to analyze, track, and evaluate the risks and results of major capital investments in information systems made by executive agencies and to report to Congress on the net program performance benefits achieved as a result of these investments.

To help carry out its oversight role, OMB has developed several processes, including its Management Watch List and high risk projects.[1] The Management Watch List identifies projects that are poorly planned (projects with weaknesses in their funding justifications, known as exhibit 300s). High risk projects require special attention from oversight authorities and the highest level of agency management, and include projects that are poorly performing (projects experiencing performance shortfalls, meaning that they do not meet one or more of four performance evaluation criteria).[2] The Management Watch List and high risk processes are

[1] While not a subject of my testimony, OMB also uses the e-Gov Scorecard as a mechanism for managing federal IT projects. Quarterly e-Gov Scorecards are reports that use a red/yellow/green scoring system to illustrate the results of OMB's evaluation of agencies' implementation of e-government criteria in the President's Management Agenda. The scores are determined in quarterly reviews, where OMB evaluates agency progress toward agreed-upon goals along several dimensions, and provides input to the quarterly reporting on the President's Management Agenda. Key criteria used to score agencies e-government process include acceptable business cases, cost and schedule performance; and security accreditation. As of June 30, 2006, 21 of the 26 departments/major agencies were identified as having a yellow (mixed results) or red (unsatisfactory) score.

[2] High risk projects are identified as having performance shortfalls if one or more of the following performance evaluation criteria are not met: establishing baselines with clear cost, schedule, and performance goals; maintaining the project's cost and schedule variances within 10 percent; assigning a qualified project manager; and avoiding duplication by leveraging inter-agency and governmentwide investments.

instrumental in helping to identify and improve oversight of poorly planned and poorly performing projects.

Last September, we testified on OMB's oversight of federal IT projects. We highlighted the number and dollar value of the projects identified as poorly planned and/or poorly performing as a result of the Management Watch List and high risk processes. Given the importance of OMB's oversight processes, you asked us to (1) provide an update on the Management Watch List and High Risk projects, and (2) identify OMB's efforts to improve the identification and oversight of these projects. In preparing this testimony, we summarized our previous reports on initiatives for improving the management of federal IT investments and interviewed OMB staff on their efforts to better identify and oversee Management Watch List and high risk projects.[3] We also analyzed current Management Watch List and high risk project information. We performed our work in accordance with generally accepted government auditing standards.

## Results in Brief

OMB and federal agencies have identified approximately 227 IT projects—totaling at least $10.4 billion in expenditures for fiscal year 2008—as being poorly planned, poorly performing, or both. Specifically, through the Management Watch List process, OMB determined that 103 projects (totaling about $4.5 billion) are poorly planned. In addition, agencies reported that 91 of their high risk projects (totaling about $1.8 billion) were poorly performing. Thirty-three projects (totaling about $4.1 billion) are both poorly planned and poorly performing. For example, the Department of Treasury's *Electronic Fraud Detection System* was identified as being poorly planned, the Social Security Administration's *Disability*

[3] GAO, *Information Technology: OMB Can Make More Effective Use of Its Investment Reviews, GAO-05-276* (Washington, D.C.: April 15, 2005); *Information Technology: Agencies Need to Improve the Accuracy and Reliability of Investment Information, GAO- 06-250* (Washington, D.C.: Jan.12, 2006); *Information Technology: Agencies and OMB Should Strengthen Processes for Identifying and Overseeing High Risk Projects, GAO-06-647* (Washington, DC, June 15, 2006).

*Service Improvement* project was identified as being poorly performing, and the Department of Homeland Security's *Secure Border Initiative Net Technology Program* was identified as being both poorly planned and poorly performing.

OMB has taken steps to improve the identification and oversight of the Management Watch List and High Risk projects by addressing some of the recommendations that we had made previously. However, additional efforts are needed to more effectively perform these activities. Specifically, we previously recommended that OMB take action to improve the accuracy and reliability of exhibit 300s, of application of the high risk projects criteria, and perform governmentwide tracking and analysis of Management Watch List and high risk project information. In response to our recommendations, OMB, for example, started publicly releasing aggregate lists of Management Watch List and high risk projects by agency in September 2006 and has been updating them since then on a quarterly basis by posting them on their website. However, OMB does not publish the reasons for placing projects on the Management Watch List, nor does it specifically identify why high risk projects are poorly performing. Providing this information would allow OMB and others to better analyze the reasons projects are poorly planned and performing, take corrective actions, and track these projects on a governmentwide basis. Such information would also help to highlight progress made by agencies or projects, identify management issues that transcend individual agencies, and highlight the root causes of governmentwide issues and trends. Until OMB makes further improvements in the identification and oversight of poorly planned and poorly performing IT projects, potentially billions in taxpayer dollars are at risk of being wasted.

## Background

Each year, OMB and federal agencies work together to determine how much the government plans to spend for IT and how these funds are to be allocated. Federal IT spending has risen to an estimated $65 billion in fiscal year 2008.

OMB plays a key role in overseeing the implementation and management of federal IT investments. To improve this oversight, Congress enacted the Clinger-Cohen Act in 1996, expanding the responsibilities delegated to OMB and agencies under the Paperwork Reduction Act.[4] Among other things, Clinger-Cohen requires agency heads, acting through agency chief information officers, to better link their IT planning and investment decisions to program missions and goals and to implement and enforce IT management policies, procedures, standards, and guidelines. The act also requires that agencies engage in capital planning and performance and results-based management.[5] OMB's responsibilities under the act include establishing processes to analyze, track, and evaluate the risks and results of major capital investments in information systems made by executive agencies. OMB must also report to Congress on the net program performance benefits achieved as a result of major capital investments in information systems that are made by executive agencies.[6]

In response to the Clinger-Cohen Act and other statutes, OMB developed policy for planning, budgeting, acquisition, and management of federal capital assets. This policy is set forth in OMB Circular A-11 (section 300) and in OMB's Capital Programming Guide (supplement to Part 7 of Circular A-11), which directs agencies to develop, implement, and use a capital programming process to build their capital asset portfolios. Among other things, OMB's Capital Programming Guide directs agencies to

- evaluate and select capital asset investments that will support core mission functions that must be performed by the federal government and demonstrate projected returns on investment that are clearly equal to or better than alternative uses of available public resources;

[4] 44 U.S.C. § 3504(a)(1)(B)(vi)(OMB); 44 U.S.C. § 3506(h)(5) (agencies).

[5] 40 U.S.C. § 11312; 40 U.S.C. § 11313.

[6] These requirements are specifically described in the Clinger-Cohen Act, 40 U.S.C. § 11302 (c).

- institute performance measures and management processes that monitor actual performance and compare to planned results; and
- establish oversight mechanisms that require periodic review of operational capital assets to determine how mission requirements might have changed and whether the asset continues to fulfill mission requirements and deliver intended benefits to the agency and customers.

To further support the implementation of IT capital planning practices as required by statute and directed in OMB's Capital Programming Guide, we have developed an IT investment management framework[7] that agencies can use in developing a stable and effective capital planning process. Consistent with the statutory focus on selecting,[8] controlling,[9] and evaluating[10] investments, this framework focuses on these processes in relation to IT investments specifically. It is a tool that can be used to determine both the status of an agency's current IT investment management capabilities and the additional steps that are needed to establish more effective processes. Mature and effective management of IT investments can vastly improve government performance and accountability. Without good management, such investments can result in wasteful spending and lost opportunities for improving delivery of services to the public.

[7] GAO, *Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity*, GAO-04-394G (Washington, D.C.: March 2004).

[8] During the selection phase, the organization (1) identifies and analyzes each project's risks and returns before committing significant funds to any project and (2) selects those IT projects that will best support its mission needs.

[9] During the control phase, the organization ensures that, as projects develop and investment expenditures continue, the project is continuing to meet mission needs at the expected levels of cost and risk. If the project is not meeting expectations or if problems have arisen, steps are quickly taken to address the deficiencies.

[10] During the evaluation phase, actual versus expected results are compared once projects have been fully implemented. This is done to (1) assess the project's impact on mission performance, (2) identify any changes or modifications to the project that may be needed, and (3) revise the investment management process based on lessons learned.

## Prior Reviews on Federal IT Investment Management Have Identified Weaknesses

Only by effectively and efficiently managing their IT resources through a robust investment management process can agencies gain opportunities to make better allocation decisions among many investment alternatives and further leverage their investments. However, the federal government faces enduring IT challenges in this area. For example, in January 2004 we reported on mixed results of federal agencies' use of IT investment management practices.[11] Specifically, we reported that although most of the agencies had IT investment boards responsible for defining and implementing the agencies' investment management processes, agencies did not always have important mechanisms in place for these boards to effectively control investments, including decision-making rules for project oversight, early warning mechanisms, and/or requirements that corrective actions for underperforming projects be agreed upon and tracked. Executive-level oversight of project-level management activities provides organizations with increased assurance that each investment will achieve the desired cost, benefit, and schedule results. Accordingly, we made several recommendations to agencies to improve their practices.

In previous work using our investment management framework, we reported that the use of IT investment management practices by agencies was mixed. For example, a few agencies that have followed the framework in implementing capital planning processes have made significant improvements.[12] In contrast, however, we and others have continued to identify weaknesses at agencies in many areas, including immature management processes to support both the selection and oversight of major IT investments and the measurement of actual versus expected performance in meeting

[11] GAO, *Information Technology Management: Governmentwide Strategic Planning, Performance Measurement, and Investment Management Can Be Further Improved*, GAO-04-49 (Washington, D.C.: Jan. 12, 2004).

[12] These agencies include the Departments of Agriculture, Commerce, and the Interior.

established performance measures.[13] For example, we recently reported that the Department of Homeland Security and the Department of Treasury did not have the processes in place to effectively select and oversee their major investments.[14]

## OMB's Management Watch List Is Intended to Correct Project Weaknesses and Business Case Deficiencies

To help ensure that investments of public resources are justified and that public resources are wisely invested, OMB began using its Management Watch List in the President's fiscal year 2004 budget request, as a means to oversee the justification for and planning of agencies' IT investments. This list was derived based on a detailed review of the investments' Capital Asset Plan and Business Case, also known as the exhibit 300.

The exhibit 300 is a reporting mechanism intended to enable an agency to demonstrate to its own management, as well as OMB, that a major project is well planned in that it has employed the disciplines of good project management; developed a strong business case for the investment; and met other Administration priorities in defining the cost, schedule, and performance goals proposed for the investment.

We reported in 2005 that OMB analysts evaluate agency exhibit 300s by assigning scores to each exhibit 300 based on guidance presented in OMB Circular A-11.[15] As described in this circular, the scoring of a business case consists of individual scoring for 10 categories, as

[13] For example, GAO, *Information Technology: Treasury Needs to Strengthen Its Investment Board Operations and Oversight*, GAO-07-865 (Washington, D.C.; Jul. 23, 2007); *Information Technology: DHS Needs to Fully Define and Implement Policies and Procedures for Effectively Managing Investments*, GAO-07-424 (Washington, D.C., Apr. 27, 2007); *Information Technology: Centers for Medicare & Medicaid Services Needs to Establish Critical Investment Management Capabilities*, GAO-06-12 (Washington, D.C.: Oct. 28, 2005); *Information Technology: Departmental Leadership Crucial to Success of Investment Reforms at Interior*, GAO-03-1028 (Washington, D.C.: Sept. 12, 2003); and *United States Postal Service: Opportunities to Strengthen IT Investment Management Capabilities*, GAO-03-3 (Washington, D.C.: Oct. 15, 2002).

[14] GAO-07-424 and GAO-07-865.

[15] GAO-05-276.

well as a total composite score of all the categories. The 10 categories are

- acquisition strategy,
- project (investment) management,
- enterprise architecture,
- alternatives analysis,
- risk management,
- performance goals,
- security and privacy,
- performance-based management system (including the earned value management system),[16]
- life-cycle costs formulation, and
- support of the President's Management Agenda.

Projects are placed on the Management Watch List if they receive low scores (3 or less on a scale from 1 to 5) in the areas of performance goals, performance-based management systems, security and privacy or a low composite score.

According to OMB, agencies with weaknesses in these three areas are to submit remediation plans addressing the weaknesses. OMB officials also stated that decisions on follow-up and monitoring the progress are typically made by staff with responsibility for reviewing individual agency budget submissions, depending on the staff's insights into agency operations and objectives. According to OMB officials, those Management Watch List projects that receive specific follow-up attention receive feedback through the passback process, targeted evaluation of remediation plans designed to address weaknesses, the apportioning of funds so that the use of budgeted dollars was conditional on appropriate remediation plans being in place, and the quarterly e-Gov Scorecards. OMB removes projects

[16] Earned value management is a project management tool that integrates the investment scope of work with schedule and cost elements for investment planning and control. This method compares the value of work accomplished during a given period with that of the work expected in the period. Differences in expectations are measured in both cost and schedule variances.

from the Management Watch List as agencies remediate the weaknesses identified with these projects' business cases.

## OMB's High Risk Projects Process Intended to Correct and Improve Project Performance

As originally defined in OMB Circular A-11 and subsequently reiterated in an August 2005 memorandum, high risk projects are those that require special attention from oversight authorities and the highest levels of agency management. These projects are not necessarily "at risk" of failure, but may be on the list because of one or more of the following four reasons:

- The agency has not consistently demonstrated the ability to manage complex projects.
- The project has exceptionally high development, operating, or maintenance costs, either in absolute terms or as a percentage of the agency's total IT portfolio.
- The project is being undertaken to correct recognized deficiencies in the adequate performance of an essential mission program or function of the agency, a component of the agency, or another organization.
- Delay or failure of the project would introduce for the first time unacceptable or inadequate performance or failure of an essential mission function of the agency, a component of the agency, or another organization.

Most agencies reported that to identify high risk projects, staff from the Office of the Chief Information Officer compare the criteria against their current portfolio to determine which projects met OMB's definition. They then submit the list to OMB for review. According to OMB and agency officials, after the submission of the initial list, examiners at OMB work with individual agencies to identify or remove projects as appropriate. According to most agencies, the final list is then approved by their Chief Information Officer.

For the identified high risk projects, beginning September 15, 2005, and quarterly thereafter, Chief Information Officers are to assess, confirm, and document projects' performance. Specifically, agencies

are required to determine, for each of their high risk projects, whether the project was meeting one or more of four performance evaluation criteria:

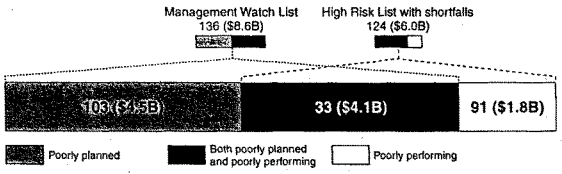
- establishing baselines with clear cost, schedule, and performance goals;
- maintaining the project's cost and schedule variances within 10 percent;
- assigning a qualified project manager; and
- avoiding duplication by leveraging inter-agency and governmentwide investments.

If a high risk project meets any of these four performance evaluation criteria, agencies are instructed to document this using a standard template provided by OMB and provide this template to oversight authorities (e.g., OMB, agency inspectors general, agency management, and GAO) on request. Upon submission, according to OMB staff, individual analysts review the quarterly performance reports of projects with shortfalls to determine how well the projects are progressing and whether the actions described in the planned improvement efforts are adequate using other performance data already received on IT projects such as the e-Gov Scorecards, earned value management data, and the exhibit 300.

## Poorly Planned and Performing Projects Total at Least $10 Billion in Estimated Expenditures for Fiscal Year 2008

OMB and federal agencies have identified approximately 227 IT projects—totaling at least $10.4 billion in expenditures for fiscal year 2008—as being poorly planned, poorly performing, or both. Figure 1 shows the distribution of these projects and their associated dollar values.

**Figure 1: Poorly Planned and Poorly Performing IT Projects (as of June 2007)**




Source: GAO analysis of OMB data.

### Hundreds of Projects Totaling Billions of Dollars Are Placed on the Management Watch List Annually

Each year, OMB places hundreds of projects totaling billions of dollars on the Management Watch List. Table 1 provides a historical perspective of the number of these projects and their associated budget since OMB started reporting on the Management Watch List in the President's budget request for 2004. The table shows that while the number of projects and their associated budget have generally decreased since then, they increased by 83 projects this year, and represent a significant percentage of the total budget.

Table 1: Management Watch List Budget for Fiscal Years 2004-2008 (in billions)

| Fiscal years | Total federal IT projects (associated budget) | Management Watch List projects (associated budget) | Percentage of federal IT projects on Management Watch List (percentage of budget) |
|---|---|---|---|
| 2004 | 1400 ($59.0) | 771 ($20.9) | 55% (35%) |
| 2005 | 1200 ($60.0) | 621 ($22.0) | 52% (37%) |
| 2006 | 1087 ($65.0) | 342 ($15.0) | 31% (23%) |
| 2007 | 857 ($64.0) | 263 ($9.9) | 31% (15%) |
| 2008 | 840 ($65.0) | 346 ($14.0) | 41% (22%) |

Source: GAO analysis of OMB data.

As of July 2007,[17] 136 projects, representing $8.6 billion, still remained on the Management Watch List (see appendix 1 for complete list). We determined that 29 of these projects were on the Management Watch List as of September 2006.

## Poorly Performing Projects Total About $6 Billion in Estimated Expenditures for Fiscal Year 2008

As of June 2007, when agencies last reported on their high risk projects to OMB, the 24 major agencies identified 438 IT projects as high risk, of which 124 had performance shortfalls collectively totaling about $6.0 billion in funding requested for fiscal year 2008. Table 2 shows that the number of projects, as well as the number of projects with shortfalls increased this year. OMB attributes this rise to increased management oversight by agencies.

[17] This is the date of OMB's most recent Management Watch List update.

**Table 2: High Risk Projects with Performance Shortfalls for Fiscal Years 2007 and 2008 (associated budget in billions)**

| Fiscal years | Total federal IT projects | High risk projects (associated budget) | High risk projects with shortfalls (associated budget) | Percentage of high risk projects shortfalls (percentage of budget) |
|---|---|---|---|---|
| 2007 | 857 ($64.0) | 226 ($6.4)[a] | 79 ($2.2)[a] | 9% (3.4% of total IT budget) |
| 2008 | 840 ($65.0) | 438 ($14.0)[b] | 124 ($6.0)[b] | 15% (9% of total IT budget) |

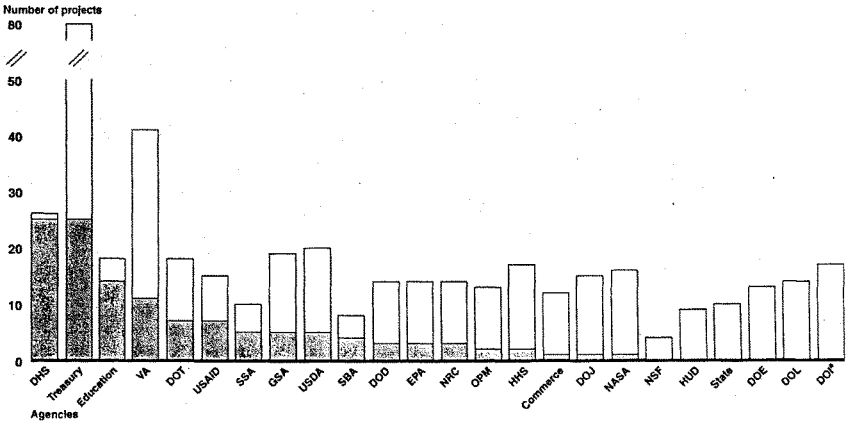
Source: GAO analysis of OMB data.

[a] These number and dollar figures are from September 2006.

[b] These number and dollar figures are from June 2007.

The majority of projects were not reported to have had performance shortfalls. In addition, five agencies—the departments of Energy, Housing and Urban Development, Labor, and State, and the National Science Foundation—reported that none of their high risk projects experienced any performance shortfalls. Figure 2 illustrates the number of high risk projects by agency as of June 2007, with and without shortfalls.

**Figure 2: Number of Agencies High Risk Projects with and without Performance Shortfalls (as of June 2007)**




No performance shortfall

Performance shortfall

Source: GAO analysis of OMB data.

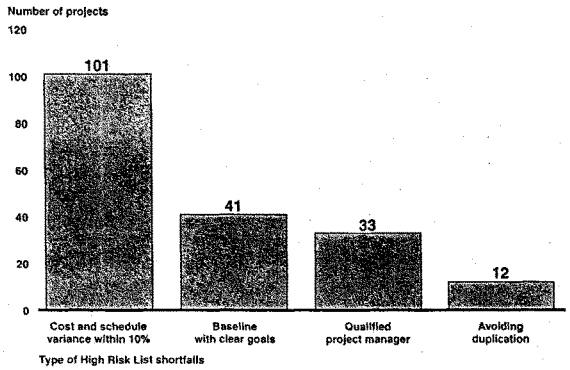
a The Department of Interior did not provide their June 2007 high risk report to GAO.

Note: One project can have multiple shortfalls.

Note: Department of Homeland Security (DHS); Department of Veterans Affairs (VA); Department of Transportation (DOT); U.S. Agency for International Development (USAID); Social Security Administration (SSA); General Services Administration (GSA); Department of Agriculture (USDA); Small Business Administration (SBA); Department of Defense (DOD); Environmental Protection Agency (EPA); Nuclear Regulatory Commission (NRC); Office of Personnel Management (OPM); Department of Health and Human Services (HHS); Department of Justice (DOJ); National Aeronautics and Space Administration (NASA); National Science Foundation (NSF); Department of Housing and Urban Development (HUD); Department of Energy (DOE); Department of Labor (DOL); Department of Interior (DOI)

Agencies reported cost and schedule variances that exceeded 10 percent as the greatest shortfall. This is consistent with what they reported about a year ago, and the distribution of shortfalls types is similar to last year. Figure 3 illustrates the reported number and type of performance shortfalls associated with high risk projects.

Figure 3: Reported Performance Shortfalls of 126 Projects (as of June 2007)




Source: GAO analysis of OMB data.

Appendix II identifies the shortfalls associated with each of the poorly performing projects.

Twenty-two high risk projects have experienced performance shortfalls for the past four quarters (see figure 4).

**Figure 4: High Risk Projects with Shortfalls in the Last 4 Quarters Sorted by Funding**

| Agency | Investment name | Fiscal year 2008 request (in millions) | 2005 Sept | 2005 Dec | 2006 Mar | 2006 June | 2006 Sept | 2006 Dec | 2007 Mar | 2007 June |
|---|---|---|---|---|---|---|---|---|---|---|
| DHS | Secure Border Initiative Net Technology Program | 1,000 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| USDA | Modernize and Innovate the Delivery of Agricultural Systems | 144 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| DHS | Secure Flight | 53 | ■ | | ■ | ■ | ■ | ■ | ■ | ■ |
| VA | VistA Imaging | 41 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| DHS | Transportation Worker Identification Credentialing | 38 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| DHS | Hazmat Threat Assessment Program | 28 | | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Treasury | Integrated Financial System/CORE Financial System | 17 | | | ■ | ■ | ■ | ■ | ■ | ■ |
| DHS | National Emergency Management Information System | 17 | | | ■ | | ■ | ■ | ■ | ■ |
| DHS | Disaster Management E-Gov | 13 | | | ■ | ■ | ■ | ■ | ■ | ■ |
| DOJ | Regional Data Exchange | 10 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| USAID | Homeland Security Presidential Directive 12 | 10 | | | | | ■ | ■ | ■ | ■ |
| USAID | Joint Assistance Management System/Procurement System Improvement Project | 10 | | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| USDA | ConnectHR | 10 | ■ | ■ | | ■ | ■ | ■ | ■ | ■ |
| SBA | Business Gateway | 6 | | | | | ■ | ■ | ■ | ■ |
| Treasury | Treasury Foreign Intelligence Network | 3 | | | ■ | ■ | ■ | ■ | ■ | ■ |
| USDA | Common Information Management System | 2 | ■ | ■ | | ■ | ■ | ■ | ■ | ■ |
| DHS | Alien Flight Student Program | 2 | | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| USAID | E-Authentication | 2 | | | | | ■ | ■ | ■ | ■ |
| USAID | E-Records | 1 | | | | | ■ | ■ | ■ | ■ |
| USAID | E-Travel | 1 | | | | | ■ | ■ | ■ | ■ |
| DHS | Registered Traveler | 0 | | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| VA | Patient Financial Services System | 0 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

■ Quarter in which the project had shortfall(s)

Source: GAO analysis of OMB data.

Note: Department of Homeland Security (DHS); Department of Agriculture (USDA); Department of Veterans Affairs (VA); Department of Justice (DOJ); U.S. Agency for International Development (USAID); Small Business Administration (SBA)

Of these projects, the following six have had shortfalls since the High Risk List was established in September 2005.

- Department of Homeland Security's (DHS) *Secure Border Initiative Net Technology Program*, which is expected to provide on-scene agents near real-time information on attempted border crossings by illegal aliens, terrorists, or smugglers;

- Department of Agriculture's (USDA) *Modernize and Innovate the Delivery of Agricultural Systems*, which is intended to modernize the delivery of farm program benefits by deploying an internet-based self-service capabilities for customers, and eliminating the department's reliance on aging technology and service centers as the sole means of delivering program benefits;
- Department of Veterans Affairs' (VA) *VistA Imaging*, which should provide complete online patient data to health care providers, increase clinician productivity, facilitate medical decision-making, and improve quality of care;
- DHS's *Transportation Worker Identification Credentialing*, which is to establish a system-wide common secure biometric credential, used by all transportation modes, for personnel requiring unescorted physical and/or logical access to secure areas of the transportation system;
- Department of Justice's (DOJ) *Regional Data Exchange*, which is expected to combine and share regional investigative information and provide powerful tools for analyzing the integrated data sets; and
- VA's *Patient Financial Services System*, which is expected create a comprehensive business solution for revenue improvement utilizing improved business practices, commercial software, and enhanced VA clinical applications.

## Several Projects are Both Poorly Planned and Poorly Performing

Thirty-three projects are on both the Management Watch List and list of high risk projects with shortfalls, meaning that they are both poorly planned and poorly performing. They total about $4.1 billion in estimated expenditures for fiscal year 2008. These projects are listed in table 3 below.

**Table 3: Projects on both the Management Watch List and the High Risk List with Shortfalls.**

| Agency | Investment name | Fiscal year 2008 request (in millions) |
|---|---|---|
| DHS | Secure Border Initiative net Technology Program | 1,000 |

| Agency | Investment name | Fiscal year 2008 request (in millions) |
|---|---|---|
| DHS | Financial Management Transformation; E-Gov: E-Travel Migr.; FM LoB Migr.; FM LoB Legacy Sys. | 6 |
| DHS | HR IT; E-Gov: HR LoB Migr.; E-Training Migr.; EHRI Migr.; E-Training Legacy Sys.; HR LoB Legacy Sys. | 17 |
| DHS | Infrastructure | 1,071 |
| DHS | National Emergency Management Information System | 17 |
| DHS | Consolidated Enforcement Environment | 11 |
| DHS | Rescue 21 | 0 |
| Education | Budget Formulation and Execution LoB | 0 |
| Education | Common Origination and Disbursement | 8 |
| Education | Common Services for Borrowers | 15 |
| Education | Data Warehouse | 1 |
| Education | Education Resources Information Center | 9 |
| NASA | Integrated Enterprise Management – Core Financial | 22 |
| NRC | Electronic Information Exchange/E-Authentication Migration | 1 |
| OPM | E-Training | 0 |
| Treasury | Chief Counsel | 1 |
| Treasury | Enterprise IT Infrastructure Optimization Initiative | 1,638 |
| Treasury | Financial Analysis & Reporting System Applications | 3 |
| Treasury | Fiscal Management | 0 |
| Treasury | Integrated Collection System | 9 |
| Treasury | Integrated Financial System/CORE Financial System | 17 |
| Treasury | Enterprise Systems | 1 |
| Treasury | Examinations | 4 |
| Treasury | Treasury-Wide Enterprise Content Management Services | 6 |
| USDA | Food and Agriculture Bio-Surveillance Integration System | 0 |
| USDA | –ConnectHR | 10 |
| USDA | Modernize and Innovate the Delivery of Agricultural Systems | 144 |
| VA | Financial & Logistics Integrated Technology Enterprise | 48 |
| VA | Medical and Prosthetic Research Operations | 24 |
| VA | My HealtheVet | 17 |
| VA | Patient Financial Services System | 0 |
| VA | Learning Management System | 6 |
| VA | VistA Imaging | 41 |

Source: GAO Analysis of OMB data.

Note: Department of Homeland Security (DHS); National Aeronautics and Space Administration (NASA); Nuclear Regulatory Commission (NRC); Office of Personnel Management (OPM); Department of Agriculture (USDA); Department of Veterans Affairs (VA)

## OMB Has Taken Steps to Improve the Identification and Oversight of Management Watch List and High Risk Projects, but Additional Efforts Are Needed

OMB has taken steps to improve the identification and oversight of the Management Watch List and high risk projects by addressing some of the recommendations we previously made, but additional efforts are needed to more effectively perform these activities and ultimately ensure that potentially billions of taxpayer dollars are not wasted. Specifically, we previously recommended that OMB take action to improve the accuracy and reliability of exhibit 300s and application of the high risk projects criteria, and perform governmentwide tracking and analysis of Management Watch List and high risk project information. While OMB took steps to address our concerns, more can be done.

### Exhibit 300s Are Now Reported Publicly but Their Accuracy and Reliability Issues Remain

In January 2006, we noted that the underlying support for information provided in the exhibit 300s was often inadequate and that, as a result, the Management Watch List may be undermined by inaccurate and unreliable data.[18] Specifically, we noted that

- documentation either did not exist or did not fully agree with specific areas of all exhibit 300s;
- agencies did not always demonstrate that they complied with federal or departmental requirements or policies with regard to management and reporting processes; for example, no exhibit 300 had cost analyses that fully complied with OMB requirements for cost-benefit and cost-effectiveness analyses; and
- data for actual costs were unreliable because they were not derived from cost-accounting systems with adequate controls; in the absence of such systems, agencies generally derived cost information from ad hoc processes.

[18] GAO-06-250.

We recommended, among other things, that OMB direct agencies to improve the accuracy and reliability of exhibit 300 information.

To address our recommendation, in June 2006, OMB directed agencies to post their exhibit 300s on their website within two weeks of the release of the President's budget request for fiscal year 2008. While this is a step in the right direction, the accuracy and reliability of exhibit 300 information is still a significant weakness among the 24 major agencies, [19] as evidenced by a March 2007 President's Council on Integrity and Efficiency and Executive Council on Integrity and Efficiency study commissioned by OMB to ascertain the validity of exhibit 300s.[20] Specifically, according to individual agency reports contained within the study, Inspectors General found that the documents supporting agencies' exhibit 300s continue to have accuracy and reliability issues. For example, according to these reports, the Agency for International Development did not maintain the documentation supporting exhibit 300s cost figures. In addition, at the Internal Revenue Service, the exhibit 300s were unreliable because, among other things, project costs were being reported inaccurately and progress on projects in development was measured inaccurately.

## High Risk Criteria Are Being Applied More Consistently, but Questions Remain as to Whether All Projects Are Identified, Including Projects with Shortfalls

In June 2006, we noted that OMB did not always consistently apply the criteria for identifying high risk projects. For example, we identified projects that appeared to meet the criteria but that were not designated as high risk.[21] Accordingly, we recommended that OMB apply their high risk criteria consistently. OMB has since designated as high risk the projects that we identified. Further, OMB

[19] President's Council on Integrity and Efficiency and Executive Council on Integrity and Efficiency, *Fiscal Years 2006 and 2007 Assessments Of Federal Agencies' Exhibit 300s*, (Washington, D.C.: March 2007).

[20] President's Council on Integrity and Efficiency and Executive Council on Integrity and Efficiency, *Fiscal Years 2006 and 2007 Assessments Of Federal Agencies' Exhibit 300s*, (Washington, D.C.: March 2007).

[21] GAO-06-647.

officials stated that they have worked with agencies to ensure a more consistent application of the high risk criteria. These are positive steps, as they result in more projects receiving the management attention they deserve.

However, questions remain as to whether all high risk projects with shortfalls are being reported by agencies. For example, we have reported in our high risk series[22] that the Department of Defense's efforts to modernize its business systems have been hampered because of weaknesses in practices for (1) developing and using an enterprise architecture, (2) instituting effective investment management processes, and (3) establishing and implementing effective systems acquisition processes. We concluded that the department remains far from where it needs to be to effectively and efficiently manage an undertaking of such size, complexity, and significance. Despite these problems, Department of Defense (DOD), which accounts for $31 billion of the government's $65 billion in IT expenditures, only reported three projects as being high risk with shortfalls representing a total of about $1 million. The dollar value of DOD's three projects represents less than one tenth of one percent of high risk projects with shortfalls. In light of the problems we and others have identified with many of DOD's projects, this appears to be an underestimation. Given the critical nature of high risk projects, it is particularly important to identify early on those that are performing poorly, before their shortfalls become overly costly to address.

## Management Watch List and High Risk Projects Made Public, but Governmentwide Analyses Still Not Performed

Finally, to improve the oversight of the Management Watch List projects, we recommended in our April 2005 report[23] that the Director of OMB report to Congress on projects' deficiencies,

[22] GAO, *High-Risk Series: An Update*, GAO-05-207 (Washington, D.C.: January 2005); *High-Risk Series: An Update*, GAO-07-310 (Washington, D.C.: January 2007).

[23] GAO, *Information Technology: Improvements Needed to More Accurately Identify and Better Oversee Risky Projects Totaling Billions of Dollars*, GAO-06-1099T (Washington, D.C.: Sept. 7, 2006).

agencies' progress in addressing risks of major IT investments, and management areas needing attention. In addition, to fully realize the potential benefits of using the Management Watch List, we recommended that OMB use the list as the basis for selecting projects for follow-up, tracking follow-up activities and analyze the prioritized list to develop governmentwide and agency assessments of the progress and risks of IT investments, identifying opportunities for continued improvement. We also made similar recommendations to the Director of OMB regarding high risk projects. Specifically, we recommended that OMB develop a single aggregate list of high risk projects and their deficiencies and use that list to report to Congress progress made in correcting high risk problems, actions under way, and further actions that may be needed.

To its credit, OMB started publicly releasing aggregate lists of the Management Watch List and high risk projects in September 2006, and has been releasing updated versions on a quarterly basis by posting them on their website. While this is a positive step, OMB does not publish the specific reasons that each project is placed on the Management Watch List, nor does it specifically identify why high risk projects are poorly performing, as we have done in appendix II. Providing this information would allow OMB and others to better analyze the reasons projects are poorly planned and performing and take corrective actions and track these projects on a governmentwide basis. Such information would also help to highlight progress made by agencies or projects, identify management issues that transcend individual agencies, and highlight the root causes of governmentwide issues and trends. Such analysis would be valuable to agencies in planning future IT projects, and could enable OMB to prioritize follow-up actions and ensure that high-priority deficiencies are addressed.

---

In summary, the Management Watch List and high risk projects processes play important roles in improving the management of federal IT investments by helping to identify poorly planned and poorly performing projects that require management attention. As of June 2007, the 24 major agencies had 227 such projects totaling at least $10 billion. OMB has taken steps to improve the identification

of these projects, including implementing recommendations related to improving the accuracy of exhibit 300s and the application of the high risk projects criteria. However, the number of projects may be understated because issues concerning the accuracy and reliability of the budgetary documents the Management Watch List is derived from still remain and high risk projects with shortfalls may not be consistently identified.

While OMB can act to further improve the identification and oversight of poorly planned and poorly performing projects, we recognize that agencies must also take action to fulfill their responsibilities in these areas. We have addressed this in previous reports and made related recommendations. Until further improvements in the identification and oversight of poorly planned and poorly performing IT projects, potentially billions in taxpayer dollars are at risk of being wasted.

## GAO Contact and Acknowledgements

If you should have any questions about this testimony, please contact me at (202) 512-9286 or by e-mail at pownerd@gao.gov. Individuals who made key contributions to this testimony are Sabine Paul, Assistant Director; Neil Doherty; Amos Tevelow; Kevin Walsh and Eric Winter.

# Appendix I: Management Watch List Projects

The following provides additional detail on the investments comprising OMB's Management Watch List as of July 2007. Under the Clinger-Cohen Act of 1996, agencies are required to submit business plans for IT investments to OMB. If the agency's investment plan contains one or more planning weaknesses, it is placed on OMB's Management Watch List and targeted for follow-up action to correct potential problems prior to execution.

We estimated the fiscal year 2008 request based on the data in the *Report on IT Spending for Fiscal Years 2006, 2007, and 2008* (generally referred to as *exhibit 53*), and data provided by agencies.

**Table 4: Management Watch List Projects by Agency**

| Agency | Investment name | Fiscal year 2008 request (in millions) |
|---|---|---|
| The Corps | Project Management Information System II | 15 |
| The Corps | Resident Management System | 3 |
| DHS | Non Intrusive Inspection System Program (Large Scale) | 0* |
| DHS | Non Intrusive Inspection System Program (Small Scale) | 0* |
| DHS | Secure Border Initiative net Technology Program | 1,000 |
| DHS | Unmanned Aircraft Systems | 0* |
| DHS | Financial Management Transformation | 6 |
| DHS | HR IT | 17 |
| DHS | Infrastructure | 1,071 |
| DHS | Technical Operations Support | 0 |
| DHS | National Emergency Management Information System | 17 |
| DHS | Flood Map Modernization | 6 |
| DHS | Risk Assessment Systems | 6 |
| DHS | Integrated Financial Management Information System | 2 |
| DHS | Consolidated Enforcement Environment | 11 |
| DHS | Computer Network Service Defense Provider | 0 |
| DHS | Computer Forensics Laboratory | 0 |
| DHS | Integrated Deepwater System | 7 |
| DHS | Rescue 21 | 0 |
| DHS | Central Index System | 3 |
| DHS | Immigration - CLAIMS 3.0 | 10 |
| DHS | Naturalization - CLAIMS 4.0 | 16 |
| DOD | Defense Information System for Security | 64 |

| Agency | Investment name | Fiscal year 2008 request (in millions) |
|---|---|---|
| DOL | Labor Executive Accountability Program | 12 |
| DOT | IT Combined Infrastructure | 233 |
| Education | Budget Formulation and Execution Line of Business | 0 |
| Education | Common Origination and Disbursement | 8 |
| Education | Common Services for Borrowers | 15 |
| Education | Data Warehouse | 1 |
| Education | Education Resources Information Center | 9 |
| Education | Integrated Technical Architecture/ Enterprise Application Integration | 8 |
| Education | Migrant Student Information Exchange | 4 |
| Education | National Student Loan Data System | 10 |
| Education | Student Aid Internet Gateway | 1 |
| HHS | IT Infrastructure | 126 |
| HHS | Consolidated Infrastructure | 102 |
| HHS | Commissioned Corps Force Management System | 2 |
| HHS | Prototype Nationwide Health Information Network Architectures | 56 |
| NASA | Shared Capability Asset Program | 41 |
| NASA | Payload Operations and Integration Center | 20 |
| NASA | Integrated Collaborative Environment | 21 |
| NASA | Earth Observing Sys Data Info Sys | 131 |
| NASA | Center for Computational Sciences | 15 |
| NASA | Space and Ground Network IT Support | 5 |
| NASA | Flight Operations | 79 |
| NASA | Integrated Planning System | 14 |
| NASA | Mission Control Center | 50 |
| NASA | Software Development/Integration Laboratory | 132 |
| NASA | Space Shuttle Program Flight Software | 86 |
| NASA | Space Shuttle Program Integration | 13 |
| NASA | Space Station Production Facility | 7 |
| NASA | Shuttle Ground Camera | 2 |
| NASA | Shuttle Ground Operations | 51 |
| NASA | Shuttle Integrated Logistics | 11 |
| NASA | Shuttle Launch Control System | 51 |
| NASA | Shuttle Processing Support | 13 |
| NASA | Integrated Enterprise Management - Aircraft Management Module | 5 |
| NASA | Integrated Enterprise Management - Core Financial | 22 |
| NASA | Integrated Enterprise Management - Integrated Asset Management - Plant Property & Equipment Module | 4 |
| NASA | Office Automation, IT Infrastructure, and Telecommunications | 547 |
| NASA | Deep Space Network | 33 |
| NASA | Integrated Services Network | 88 |
| NRC | Agency-wide Documents Access and Management System | 12 |
| NRC | Budget Formulation Application | 0 |

| Agency | Investment name | Fiscal year 2008 request (in millions) |
|---|---|---|
| NRC | Cost Accounting System | 1 |
| NRC | Digital Data Management System | 0 |
| NRC | Human Resources Management System | 1 |
| NRC | Incident Response System | 4 |
| NRC | Infrastructure Services and Support | 52 |
| NRC | License Fee Billing System | 1 |
| NRC | License Fee Billing System Replacement | 1 |
| NRC | Licensing Support Network | 2 |
| NRC | Licensing Tracking System/Web Based Licensing | 0 |
| NRC | National Source Tracking System | 4 |
| NRC | Reactor Program System | 1 |
| NRC | Secure LAN and Electronic Safe | 5 |
| OPM | E-Training | 0 |
| SBA | Business Development Management Information System | 0 |
| Treasury | Business Master File | 13 |
| Treasury | Chief Counsel | 1 |
| Treasury | Cross Border Funds Transmittal | 3 |
| Treasury | Electronic Fraud Detection System | 12 |
| Treasury | Financial Analysis & Reporting System Applications | 3 |
| Treasury | Fiscal Management | 0 |
| Treasury | Individual Master File | 13 |
| Treasury | Integrated Collection System | 9 |
| Treasury | Integrated Financial System/CORE Financial System | 17 |
| Treasury | Enterprise Systems | 1 |
| Treasury | Examinations | 4 |
| Treasury | Oracle e-Business Suite | 5 |
| Treasury | Tax Return Database | 5 |
| Treasury | TreasuryDirect | 5 |
| Treasury | Treasury-Wide Enterprise Content Management Solution | 6 |
| Treasury | Treasury-wide Integrated IT Infrastructure | 1,638 |
| USDA | ConnectHR | 8 |
| USDA | Consolidated Infrastructure, Office Automation and Telecommunications | 843 |
| USDA | Farm Program Modernization | 151 |
| USDA | Food & Agriculture Bio-Surveillance Integration System | 0 |
| USDA | Human Resources Line of Business: Service Center | 25 |
| VA | Allocation Resource Center | 2 |
| VA | Automated Monument Application System | 1 |
| VA | Benefits Delivery Network Maintenance and Operations | 22 |
| VA | BIRLS/VADS | 3 |
| VA | Burial Operations Support System | 1 |
| VA | C&P Maintenance and Operations | 43 |
| VA | Capital Asset Management System | 2 |

| Agency | Investment name | Fiscal year 2008 request (in millions) |
|---|---|---|
| VA | Data Centric Transition for VR&E and Education | 0 |
| VA | Decision Support System | 20 |
| VA | Document and Correspondence Management System | 1 |
| VA | Education Maintenance and Ops | 3 |
| VA | Enrollment Operations and Maintenance | 5 |
| VA | e-Payroll | 9 |
| VA | Federal Health Information Exchange | 4 |
| VA | Financial & Logistics Integrated Technology Enterprise | 48 |
| VA | Financial Management System | 16 |
| VA | Health Admin Center IT Operations | 11 |
| VA | Health Data Repository | 27 |
| VA | Insurance System Maintenance and Operations | 7 |
| VA | IT Infrastructure | 645 |
| VA | Loan Guaranty Maintenance and Operations | 2 |
| VA | Medical and Prosthetic Research Operations | 24 |
| VA | My HealtheVet | 17 |
| VA | Patient Financial Services System | 0 |
| VA | Payroll/HR Systems | 27 |
| VA | Pharmacy Re-Engineering and IT Support | 13 |
| VA | Program Integrity/Data Management | 13 |
| VA | Rules-Based Claims Processing | 0 |
| VA | Scheduling Replacement Project | 15 |
| VA | The Education Expert System | 5 |
| VA | VA-Learning Management System | 6 |
| VA | VA-Wide e-Travel Solution | 1 |
| VA | VBA Application Migration Project | 5 |
| VA | VistA Imaging | 41 |
| VA | VistA-Application Development | 130 |
| VA | VistA-Legacy | 352 |
| VA | VR&E Maintenance and Operations | 4 |

Source: GAO Analysis of OMB data.

Note: Department of Homeland Security (DHS); Department of Defense (DOD); Department of Energy (DOE); Department of Interior (DOI); Department of Justice (DOJ); Department of Labor (DOL); Department of Transportation (DOT); Environmental Protection Agency (EPA); General Services Administration (GSA); Department of Health and Human Services (HHS); Department of Housing and Urban Development (HUD); National Aeronautics and Space Administration (NASA); Nuclear Regulatory Commission (NRC); National Science Foundation (NSF); Office of Management and Budget (OMB); Office of Personnel Management (OPM); Small Business Administration (SBA); Social Security Administration (SSA), U.S. Agency for International Development (USAID); Department of Agriculture (USDA); Department of Veterans Affairs (VA)

* Our research could not identify dollar amounts for these projects.

# Appendix II: High Risk Projects with Shortfalls

The following provides additional detail on the high risk projects that have performance shortfalls as of June 2007.

We estimated the fiscal year 2008 request based on the data in the *Report on IT Spending for Fiscal Years 2006, 2007, and 2008* (generally referred to as *exhibit 53*), and data provided by agencies.

**Table 5: High Risk Projects with Shortfalls by Agency**

| | | | Performance shortfalls | | | |
|---|---|---|---|---|---|---|
| Agency | Investment name | Fiscal year 2008 request (in millions) | Unclear baseline | Cost and schedule variance not within 10% | Project manager not qualified | Project duplicative of another |
| DHS | A&O Homeland Security Information Network | 21 | X | X | | |
| DHS | CBP Secure Border Initiative net Technology Program | 1,000 | X | X | | |
| DHS | Financial Management Transformation; E-Gov: E-Travel Migr.; FM LoB Migr.; FM LoB Legacy Sys. | 6 | X | X | X | |
| DHS | HR IT; E-Gov: HR LoB Migr.; E-Training Migr.; EHRI Migr.; E-Training Legacy Sys.; HR LoB Legacy Sys. | 17 | X | | X | X |
| DHS | Infrastructure | 1,071 | X | X | | |
| DHS | E-Gov E-Authentication; E-Auth. Migr.; E-Auth. Shared Serv. Prov. | 0 | X | X | X | X |
| DHS | E-Gov E-Rulemaking Migr.; E-Rulemaking Legacy Sys. | 1 | X | X | X | X |
| DHS | E-Gov FAS Migr.; FAS Sales Ctr.; FAS Legacy Sys. | 0 | X | X | X | X |
| DHS | E-Gov IAE Migr. | 2 | X | X | X | X |
| DHS | National Emergency Management Information System | 17 | X | | X | |
| DHS | Consolidated Enforcement Environment | 11 | X | X | | |
| DHS | NPPD Information Systems Security Line of Business | 2 | X | X | X | |
| DHS | NPPD NS/EP Priority Telecommunications Service | 130 | X | | | |
| DHS | Disaster Management E-Gov | 13 | X | X | | |

| Agency | Investment name | Fiscal year 2008 request (in millions) | Performance shortfalls: Unclear baseline | Cost and schedule variance not within 10% | Project manager not qualified | Project duplicative of another |
|---|---|---|---|---|---|---|
| DHS | SAFECOM | 0 | X | X | X | |
| DHS | US-VISIT | 462 | | | X | |
| DHS | Alien Flight Student Program | 2 | X | | | |
| DHS | Crew Vetting | 15 | X | X | X | |
| DHS | Hazmat Threat Assessment Program | 28 | X | X | X | |
| DHS | Registered Traveler | 0 | X | X | | |
| DHS | Secure Flight | 53 | | X | | |
| DHS | Transportation Worker Identification Credentialing | 38 | | X | | |
| DHS | Nationwide Automatic Identification System | 22 | | X | | |
| DHS | Rescue 21 | 0 | | X | X | |
| DHS | Customer Service Portal | 13 | X | X | X | X |
| DOC | FM LoB Migration | 0 | X | X | X | X |
| DOD | Integrated Acquisition Environment Legacy System (FedTeDS) | 1 | | | X | |
| DOD | Integrated Acquisition Environment Shared Service Provider (ORCA) | 0 | | | X | |
| DOD | Integrated Acquisition Environment Shared Service Provider (PPIRS) | 0 | | X | | |
| DOJ | Regional Data Exchange | 10 | | X | | |
| DOT | EHRI | 2 | | | X | |
| DOT | E-Rulemaking Migration | 1 | X | | | |
| DOT | FAA Telecommunications Infrastructure | 222 | | X | | |
| DOT | Terminal Automation Mod. & Rep. | 13 | | X | | |
| DOT | SWIM | 23 | X | | | |
| DOT | Traffic flow Management | 121 | | X | | |
| DOT | Regulation and Certification Infrastructure for System Safety | 55 | X | | | |
| Education | ADvance (Aid Delivery) | 65 | | X | | |
| Education | Advance Development | 28 | | X | | |
| Education | Budget Formulation and Execution LoB | 0 | | | X | |
| Education | Common Origination and Disbursement | 8 | | X | | |
| Education | Common Services for Borrowers | 15 | | X | | |
| Education | Data Strategy | 14 | | X | | |
| Education | Data Warehouse | 1 | | X | | |
| Education | E-Authentication Migration | 3 | X | X | X | X |

| Agency | Investment name | Fiscal year 2008 request (in millions) | Performance shortfalls: Unclear baseline | Cost and schedule variance not within 10% | Project manager not qualified | Project duplicative of another |
|---|---|---|---|---|---|---|
| Education | Education Resources Information Center | 9 | | X | | |
| Education | E-GOV: E-Rulemaking Migration | 0 | X | | | |
| Education | EHRI | 0 | X | | | |
| Education | ID Access Control System | 1 | | X | | |
| Education | Information Assurance | 9 | | X | | |
| Education | Integrated Partner Management | 8 | | X | | |
| EPA | eRulemaking | 1 | | X | | |
| EPA | E-Travel Migration | 0 | | X | | |
| EPA | FM LoB - Migration | 26 | | X | | |
| GSA | CHRIS-EHRI | 7 | | X | | X |
| GSA | EHRI Migration | 2 | X | | | |
| GSA | FAS Sales Center SSP (PP) | 2 | | X | | |
| GSA | IAE SSP (EPLS) | 1 | | X | | |
| GSA | IAE SSP (FPDS-NG) | 6 | | X | | |
| HHS | Federal Health Architecture | 4 | | X | | |
| HHS | Consolidated Acquisiton Solution | 8 | X | X | | |
| NASA | NASA Integrated Enterprise Management - Core Financial | 22 | | X | | |
| NRC | Electronic Information Exchange/E-Authentication Migration | 1 | | X | | |
| NRC | E-Training (Learning Management System) | 0 | | X | | |
| NRC | E-Travel Conversion | 1 | | X | | |
| OPM | E-Training | 0 | | | X | |
| OPM | GoLearn | 0 | | | X | |
| SBA | Business Gateway (Managing Partner) | 6 | | | X | |
| SBA | Disaster Credit Management System | 13 | | X | | |
| SBA | GCBD: Business Development Management Information System | 0 | | X | | |
| SBA | OCA: Loan Management and Accounting System | 9 | | X | | |
| SSA | Disability Service Improvement | 54 | | X | | |
| SSA | E-Travel Migration | 0 | | X | | |
| SSA | GovBenefits Migration | 0 | | X | | |
| SSA | IT Operations Assurance | 30 | | X | | |
| SSA | Telephone Systems Replacement Project | 26 | | X | | |
| Treasury | Chief Counsel | 1 | | X | | |

| Agency | Investment name | Fiscal year 2008 request (in millions) | Performance shortfalls: Unclear baseline | Cost and schedule variance not within 10% | Project manager not qualified | Project duplicative of another |
|---|---|---|---|---|---|---|
| Treasury | Correspondence Examination Automated System | 8 | | X | | |
| Treasury | Debt Management Accounting System | 6 | | X | | |
| Treasury | Enterprise IT Infrastructure Optimization Initiative | 1,638 | | X | | |
| Treasury | Examination Desktop Support System | 5 | | X | | |
| Treasury | Excise Files Information Retrieval System | 7 | | X | | |
| Treasury | Excise Tax e-File & Compliance | 2 | | X | | |
| Treasury | Filing and Payment Compliance | 2 | | X | | |
| Treasury | Financial Analysis & Reporting System | 3 | | X | | |
| Treasury | Financial Information and Reporting Standardization | 7 | | X | | |
| Treasury | Fiscal Management | 0 | | | X | |
| Treasury | Integrated Collection System | 9 | | X | | |
| Treasury | Integrated Customer Communications Environment | 18 | | X | | |
| Treasury | Integrated Financial System/CORE Financial System | 17 | | | | X |
| Treasury | Integrated Submission and Remittance Processing System | 17 | | X | | |
| Treasury | OCC ENTERPRISE SYSTEMS | 1 | | X | | |
| Treasury | OCC EXAMINATIONS | 4 | | X | | |
| Treasury | Payment Application Modernization | 18 | | X | | |
| Treasury | SaBRe | 5 | | X | | |
| Treasury | Service Center Recognition Image Processing System | 17 | | X | | |
| Treasury | Travel Reimbursement and Accounting System | 1 | | | | X |
| Treasury | Automated Auction Processing System | 32 | | X | | |
| Treasury | Foreign Intelligence Network | 3 | | X | | |
| Treasury | Secure Data Network | 4 | | X | | |
| Treasury | Treasury-Wide Enterprise Content Management Services | 6 | | X | X | |
| USAID | E-Authentication | 2 | X | X | | |
| USAID | E-Records | 1 | | X | | |
| USAID | E-Travel | 1 | | X | | |
| USAID | GLAS | 0 | | X | | |

| Agency | Investment name | Fiscal year 2008 request (in millions) | Performance shortfalls: Unclear baseline | Cost and schedule variance not within 10% | Project manager not qualified | Project duplicative of another |
|---|---|---|---|---|---|---|
| USAID | HR LoB - Legacy System: Time & Attendance (replace AETA) | 0 | X | X | | |
| USAID | Homeland Security Presidential Directive-12 | 10 | X | X | | |
| USAID | Joint Assistance Management System | 0 | | X | | |
| USDA | Corporate Property Automated Information System | 1 | | X | | |
| USDA | Food and Agriculture Bio-Surveillance Integration System | 0 | | X | | |
| USDA | ConnectHR | 10 | | | | X |
| USDA | Modernize and Innovate the Delivery of Agricultural Systems | 144 | X | X | X | |
| USDA | RMA-17, Common Information Management System | 2 | X | X | | |
| VA | E-Gov: E-Authentication | 0 | X | X | X | |
| VA | E-Gov: Financial Management LOB | 0 | X | X | X | |
| VA | E-Gov: Human Resources Management LoB | 0 | X | X | X | |
| VA | Enterprise Human Resources Integration | 2 | X | X | X | |
| VA | Financial & Logistics Integrated Technology Enterprise | 48 | | X | | |
| VA | Medical and Prosthetic Research Operations | 24 | X | X | X | |
| VA | My HealtheVet | 17 | | | X | |
| VA | Patient Financial Services System | 0 | X | X | | |
| VA | Learning Management System | 6 | | X | | |
| VA | VistA Imaging | 41 | X | X | X | |
| VA | VistA-Foundations Modernization | 92 | | X | | |

Source: GAO Analysis of OMB data.

Note: Department of Homeland Security (DHS); Department of Defense (DOD); Department of Energy (DOE); Department of Interior (DOI); Department of Justice (DOJ); Department of Labor (DOL); Department of Transportation (DOT); Environmental Protection Agency (EPA); General Services Administration (GSA); Department of Health and Human Services (HHS); Department of Housing and Urban Development (HUD); National Aeronautics and Space Administration (NASA); Nuclear Regulatory Commission (NRC); National Science Foundation (NSF); Office of Management and Budget (OMB); Office of Personnel Management (OPM); Small Business Administration (SBA); Social Security Administration (SSA), U.S. Agency for International Development (USAID); Department of Agriculture (USDA); Department of Veterans Affairs (VA)

**Statement for the Record**

**Barry C. West**
**Chief Information Officer**
**U.S. Department of Commerce**

**Before the**

**United States Senate**
**Committee on Homeland Security and Governmental Affairs**
**Subcommittee on**
**Federal Financial Management, Government Information, Federal Services, and International Security**

**September 20, 2007**

Chairman Carper, Ranking Member Coburn, and distinguished Members of the Subcommittee, I appreciate the opportunity to address you on the Department of Commerce's (Commerce) inclusion on the Office of Management and Budget's (OMB) High Risk and Management Watch Lists.

Commerce has 12 information technology (IT) investments on the Office of Management and Budget's (OMB) High Risk List. Of these, eight represent Commerce's participation in OMB's E-Government Initiatives or Lines of Business with a migration component or where Commerce is a shared service provider. These investments were designated by OMB as high risk and include E-Travel, E-Rulemaking, E-Authentication, and the Financial Management Line of Business. The other four were nominated by Commerce because they meet two of OMB's four high risk criteria: the exceptionally high development, operating, or maintenance costs, either in absolute terms or as a percentage of the agency's total IT portfolio, and delay or failure would introduce for the first time inadequate performance or failure of an essential mission program or function of the agency, a component of the agency, or another organization.

The four investments nominated by Commerce include three components of the 2010 Decennial Census: Field Data Collection Automation (FDCA), Decennial Response

Integration System (DRIS), and Master Address File and Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER). The fourth is the Ground System of the National Polar-orbiting Operational Environmental Satellite System (NPOESS). These are discussed in more detail later. Another, Advanced Weather Interactive Processing System (AWIPS) Linux Migration, was formerly on the list. This project has been completed and removed from the list. All meet OMB's evaluation criteria, i.e., have a baseline with clear goals, are within 10 percent of cost and schedule targets, have a qualified project manager, and avoid duplication with OMB's E-Government efforts.

Of Commerce's 65 major IT investments submitted to OMB in the FY 2008 budget, OMB placed 49 on its Management Watch List. All have been remediated and are no longer on the watch list. Of the 49, 29 were taken off the list by December 2006, leaving 20 on the list; all but one were removed by March 2007; the last was removed in June 2007. To ensure that Commerce's senior management understood the importance of the Management Watch List and actively supported corrective actions, in March 2007, the Chief Information Officer (CIO) briefed the Executive Management Team, Commerce's most senior executives, providing a status update. Also, during the CIO's weekly update to the Deputy Secretary, the most critical IT issues, including Management Watch List updates and status were briefed and discussed, and progress tracked.

Corrective actions included completing additional documentation necessary to demonstrate adequate planning and investment control, largely in the areas of security and privacy. Office of the CIO staff worked diligently with the operating unit capital planning points of contact to research and develop additional explanatory material and to ensure that responses were consistent across the business cases. One key area was to provide specifics on how we manage contractor systems in terms of security. What was critical here was to ensure that the response was tailored to each individual investment and not a standard response applied globally to a group of investments. Another was to come to agreement with OMB on the best way to respond to the privacy questions where there was ambiguity. For 13 investments, Commerce completed re-Certification and Accreditation (C&A) of the investments where the C&A had expired. OMB also requested and received confirmation that, where the investment showed funding for

development, modernization, or enhancement, the investment would not be put into operation until a new C&A had been completed. For many investments, OMB requested background documentation, such as a risk management plan or assessment, operational analysis, or earned value management report. In all, Commerce provided over 60 separate supporting files.

Office of the CIO staff also held several conference calls with OMB and Commerce's investment sponsors to further elaborate on the management of the investments where the written material did not fully allay OMB's concerns. One of these addressed security for the hand held computers that will be used for the 2010 Decennial Census.

Commerce attributes its success to the strength of its information technology (IT) capital planning and investment control (CPIC) process, which is discussed below, and to its commitment to improve IT security. The CIO frequently briefed the Deputy Secretary as well as the Executive Management Team on the status of the completion of C&A packages. IT security has been a topic at every CIO Council meeting for the past year, with an emphasis again on completing high quality C&A packages and ensuring that our C&A process was repeatable and reliable. Operating unit CIOs, supported by their senior management, were fully apprised of the importance of the C&A packages and ensured that the work was completed as needed in their respective operating units.

We also appreciate the cooperation of OMB when reviewing Commerce's IT business cases. Though exacting, OMB was open to hearing and understanding our explanations.

## Capital Planning and Investment Control

Commerce's CPIC process is built on a foundation of strategic and operational IT planning that is integrated with processes for the selection, control, and evaluation of IT investments. The OMB's Circular A-11, Exhibits 300 (Capital Asset Plan and Business Case Summary) and 53 (Agency IT Investment Portfolio) form the building blocks for IT planning, budgeting, and acquisition documentation.

The process begins with a request from the Department's Chief Information Officer (CIO) for operating units to develop strategic IT plans within the context of maturing their capital planning and investment control process. Operating units are asked to develop strategies to address performance gaps. Capital planning and investment control processes based on strategic IT plans are linked with and support operating unit program plans developed under requirements of the Government Performance and Results Act (GPRA).

Strategic IT plans provide a framework for discussion and an opportunity for operating units to focus on the strategic use of IT resources to improve program delivery. Strategic IT plans also lay the groundwork for development of operational IT plans and documentation to support budget year IT initiatives. Strategic IT plans establish over-arching, operating unit-wide IT goals, such as the development of architectures, strategic use of electronic commerce, and development of IT security and privacy strategies.

Operational IT plans are due in the fall and describe specific operating unit plans for IT activities for the coming fiscal year. The operational IT plans are based on OMB Circular A-11, Exhibit 300. This provides continuity with the budgeting process and a consistent set of documentation, ensuring that issues such as developing systems within the context of an architecture and IT security and privacy are considered on an ongoing basis. At the point of the operational IT plans, the Exhibit 300 documentation should be well defined, identifying specific schedules, acquisition plans, and performance measures. The timing of the operational IT plan is intended to put the focus on the coming fiscal year and to promote better coordination and integration with development of performance measures required by GPRA.

## Investment Review Process

### *Budget Year Initiatives*

The CIO issues a call for IT budget initiatives as well as for documentation on major systems in the spring. This IT planning call is directly linked to the Secretary's budget

guidance for the upcoming budget year; submissions are due at the same time budget proposals are due, usually mid-May. The budget proposals, as well as documentation of major systems, are provided in OMB Circular A-11, Exhibit 300 format. The proposals are a product of operating unit IT selection processes, reflecting operating unit portfolio analysis and operating unit IT review board decisions.

The Commerce IT Review Board (CITRB) advises the Secretary and Deputy Secretary on critical IT matters, ensuring that proposed investments contribute to the Secretary's strategic vision and mission requirements, employ sound IT investment methodologies that comply with Departmental systems architectures, and provide the highest return on the investment or acceptable project risk. This technical review is then a factor in decisions for approval or disapproval of funding for new or base investments as part of the Department's budget review process. Systems selected for review meet one or more of the following criteria: systems meriting special attention due to their sensitivity, mission criticality, or risk potential; Department-wide systems; systems where resources are shared between operating units and/or the Department; and systems with life cycle costs over $25 million.

The CITRB is chaired by the CIO, co-chaired by the Chief Financial Officer and Assistant Secretary for Administration (CFO/ASA), and composed of the Director of the Office of Budget, the Senior Procurement Executive, the Director for Human Resources, the Deputy Chief Financial Officer, the Deputy CIO, and CIOs from the National Oceanic and Atmospheric Administration, Census Bureau, National Institute of Standards and Technology, and International Trade Administration, and, on a rotating basis, up to two other operating unit CIOs. Currently these include the Bureau of Economic Analysis and the Bureau of Industry and Security.

Ratings of the CITRB are based on consensus evaluations on a green-yellow-red scale, using decision criteria to determine such factors as alignment to Commerce and operating unit high-level performance goals, net risk-adjusted return on investment, project management strategies, risk mitigation, security implementation, architectural compliance, and overall value of proposed IT projects. Only CITRB members or

designated alternates from the Department of Commerce may vote, but staff with relevant expertise participate in the discussions and question the proposal sponsors. Initiatives that do not meet the criteria to be reviewed by the Board are reviewed following the same process by Office of the CIO staff supplemented by staff from the Office of Acquisition Management as well as the Office of Budget. CIO staff also review all Exhibit 300s for existing and proposed investments, and provide comments to investment sponsors to help improve the quality of these business cases.

To help focus the CITRB sessions, project managers and sponsors for investments selected for CITRB review are required to provide supporting project planning documentation, including the Exhibit 300, two weeks prior to the CITRB meeting. Staff subject matter experts in IT security, enterprise architecture, project management, earned value management, benefit-cost analysis, budgeting, and acquisition review the project management material and provide comments to the project manager and sponsor providing them an opportunity to explain or resolve gaps in the information provided. Remaining technical issues are highlighted for the CIO's attention prior to the CITRB meeting.

Following the meeting, the CIO provides the operating units the investments' ratings along with comments and suggestions for improvements, and an opportunity to improve their proposal justifications, where needed. The CIO, in consultation with the CITRB members and Office of the CIO staff, reviews the revised proposals and assigns a final rating on a green-yellow-red scale, which is then provided to the Office of Budget. Also, the CIO or Deputy CIO provides input and commentary as necessary on initiatives with an IT component during the Department's budgetary deliberations.

***Control and Evaluation Reviews***

As part of its charter, the CITRB makes recommendations for continuation or termination of projects under development at key milestones or when they fail to meet performance, cost, or schedule criteria. The Office of the CIO staff review all major systems and make recommendations to the CIO regarding those IT investments that should be reviewed by

the Board. The staff also conduct pre-Board reviews themselves or recommend pre-Board reviews from external experts, when they perceive a benefit from an independent, in-depth evaluation.

The CITRB meets monthly to assess IT investments and to review the performance of on-going investments in control and post-implementation reviews. The CITRB review process follows on the operating unit processes for the control and evaluation of major IT investments, which generate documentation for CITRB consideration. For acquisition projects of $10 million or greater, once the CITRB approves investment decisions, the Acquisition Plan outlining the business approach is reviewed by the Senior Procurement Executive.

The CIO provides formal evaluation memoranda to the project sponsors and requires follow-up information and actions with due dates, as needed. The Office of the CIO staff track responses to the actions. Further, the operating units provide quarterly earned value management and operational analysis reports, which are reviewed by Office of the CIO staff. These processes taken together highlight any investments that may need special management attention. The CIO briefs the Deputy Secretary on investments that deviate from cost, schedule, or performance goals by more than 10 percent or that are in other ways troublesome.

In FY 2007, the CITRB reviewed 12 IT investments, and three operating IT investment portfolios requesting 46 follow-up actions. The NPOESS Ground System, one of the investments on OMB's High Risk List, is scheduled for review in October 2007. Due primarily to technical difficulties in developing one of the satellite's major sensors, the overall NPOESS project cost, schedule, and requirements were reviewed and revised in June 2006. While the NPOESS Ground System had been meeting cost and schedule goals, the delay in the satellite launch dates caused the Ground System schedule to be revised and rebaselined.

Additionally, the Commerce IT Review Board identified the Decennial Census IT project as needing special oversight due to its size, importance, and high risk. The Census

Bureau is re-engineering the 2010 Decennial Census to be more efficient and cost effective, provide richer data, improve coverage, and reduce risk in meeting constitutional and legislative mandates. The Census Bureau will continue to exploit the use of advanced technology to support process improvements in the 2010 Census. Specific attention is being focused on the use of hand held computers through FDCA, one of the investments on OMB's High Risk List, offering a major opportunity to develop more efficient data collection/capture processes for the 2010 Census. The first major tests of the hand held computers (HHCs) were conducted in 2004 and 2006 using a prototype version of the device to assess whether or not the HHCs could be successfully used in the field for 2010 Census operations. The overall benefits to Census operations were verified and provided a proof of concept of the hand held computers, while pointing to technical adjustments needed.

The modernization of the Census Bureau's geographic data base and address file (MAF/TIGER, also on the High Risk List) is on schedule to be completed prior to the start of 2010 Decennial Census operations. This effort realigns boundary and feature data in the Census data base with geographic coordinates that can in turn be utilized by geographic information systems. Further, the CITRB reviewed the Decennial Response Integration System, the third Decennial system on the High Risk List. Based on this review, DRIS received CITRB approval to proceed with Phase II of its three-phase development. The scope includes all design, development, testing, security, deployment and operations support activities to complete the 2010 Census data capture and assistance activities.

While IT for the Decennial Census is the primary focus of the Office of the Chief Information Officer in this special oversight of the Decennial Census, associated general management issues are of interest to the CFO/ASA. Therefore, the CFO/ASA and the CIO have been conducting quarterly oversight reviews of this project jointly, addressing both general management and IT issues. As a result of these reviews, the overall management of the 2010 Census is being monitored along with the management of the IT

support required. Where needed, the Census Bureau is asked to provide clarifying information, often for the next quarterly review.

***Capital Planning Training***

Over the past several years we have sponsored training, supplemented by one-on-one consultations, to address the areas of the Exhibit 300 that cause preparers the most difficulty, including performance measurements, alternatives analysis to include return on investment, and earned value management. Additionally, we regularly update a set of customized, Commerce-specific instructions on how to prepare a high quality business case and post them to our Web site. The Department's Office of the CIO also offers training sessions for beginning and advanced students on use of the eCPIC (electronic Capital Planning and Investment Control) software to enter, track, and analyze their operating unit's portfolio of IT and non-IT investments.

## Linkages to Other Processes

Commerce's capital planning and investment control process is linked to other processes within Commerce. The linkage to the budget process has been described above. Linkages to other IT processes and to the acquisition process, which directly support the quality of the IT investments and their management, are described below.

***Acquisition***

In a cooperative effort with the Office of the CIO and the Office of Budget, Commerce's Office of Acquisition (OAM) uses OMB Circular A-11, Exhibit 300 as the foundation for documentation required in the acquisition process. An Acquisition Plan supplements the Exhibit 300 with additional acquisition information and must be made available to the CITRB. The Senior Procurement Executive is a member of the CITRB. These procedures fully integrate the acquisition process with the information technology and budgeting processes.

***Enterprise Architecture***

The Commerce Enterprise Architecture (EA) has a broad scope. The EA is the union of the operating unit architectures and the overarching Department architecture. The Department architecture addresses lines of business and services common to all operating units. It establishes basic goals and directions, characterizes common systems and services, and defines fundamental standards universal to all operating units. This approach provides the operating units flexibility in executing their mission specific lines of business, while providing greater efficiency and reduced cost for the common lines of business. The diverse nature and mission of each operating unit mandates a flexible structure, allowing each operating unit to define its mission specific architecture that best fits its business requirements. In this way, each operating unit can fulfill its mission tasks, and provide the best service to all stakeholders and customers while supporting the overall goals of Commerce.

The Commerce Enterprise Architecture documents results realized from the combined capital planning and architecture efforts in reducing redundant systems, reusing existing components, and taking advantage of newer technologies to achieve efficiencies. The high-level overview describes Commerce's goals and business needs, and "as is" and "to be" architectures along with migration plans, from business, information, application, and infrastructure views. This is supplemented by detailed technical and architecture information from the operating units in support of the strategic architectural vision.

Another part of the overall architecture effort is the identification and development of segment architectures. Segment architectures are discrete slices of the enterprise that provide a product or service. The segment architecture provides detailed results-oriented architecture and a transition strategy for a section of the enterprise.

The Department's Enterprise Architecture Advisory Group, composed of representatives from across the Department, developed guidance for the Enterprise Architecture Program. This guidance is consistent with the OMB Federal Enterprise Architecture Framework and is designed to enhance the integration of the operating unit portions of the Enterprise Architecture and provide a consistent picture across all of Commerce. With the development of the OMB Federal Enterprise Architecture Assessment

Framework, as well as the General Accountability Office Architecture Maturity Assessment, the Commerce Enterprise Architecture Capability Maturity Model has been retired.

The Enterprise Architecture Review Board is a focused group derived from the Enterprise Architecture Advisory Group, which reviews architecture updates and change requests, and examines investments that are being reviewed by the CITRB for compliance with the Enterprise Architecture. Recommendations are forwarded to the CITRB for consideration.

***IT Security and Privacy***

The Department of Commerce places a very high priority on IT security, recognizing that an effective IT Security Program is necessary to protect its IT investments and its data. The Department has strengthened its focus in two management areas: IT security program management and administration, and critical infrastructure protection.

The IT Security Program Team, supplemented by IT Security Officers in each of the operating units, focuses on improving Department-wide IT security program management and overseeing Department-wide compliance with IT security requirements. Recent efforts to improve the program include focusing on standardizing the processes that lead to sound IT system's certification and accreditation; updating the comprehensive IT security program policy and minimum implementation standards to reflect current IT investment trends and regulatory requirements, particularly in the area of personally identifiable information; ensuring linkage between the IT system inventory and IT investments; as well as improving general security awareness training and providing role-based training for those with significant IT security roles and responsibilities. In addition, the Department continues an IT compliance review program that includes testing the management, operational, and technical controls of the Department's IT systems.

The IT Security program is the information assurance foundation ensuring the consideration of IT security over the system's life cycle, from inclusion in IT capital asset

budgeting to system disposal. Details of these efforts are provided in the Department's annual report to OMB as required by the Federal Information Security Management Act.

The Critical Infrastructure Protection program concentrates on securing the Department's infrastructure resources that support national essential functions. In addition, the team reviews and coordinates the IT aspects of Department-wide continuity of operations planning to ensure availability of IT investments that support nationally critical as well as Commerce's mission functions. Partnerships established with the Department of Homeland Security and integration with Commerce physical security programs have enhanced the quality of the critical infrastructure program. Furthermore, current and planned investments in new technology for incident detection and infrastructure monitoring will strengthen the Department's IT security posture and enforce the information assurance efforts under way by the IT Security Program Team, as described above, to protect the Department's IT investment.

The Department has established a Chief Privacy Officer, who assists in the review of Privacy Impact Assessments (PIA) as part of the IT capital planning process and helped establish Commerce's IT Privacy Policy. The Chief Privacy Officer works closely with Commerce's Privacy Act Officer, established under the Privacy Act. Both ensure that Commerce's CIO, who serves as Commerce's Senior Official for Privacy, is actively involved in and informed of privacy issues affecting Commerce. In a testament to Commerce's commitment to privacy, Commerce's IT Privacy Policy extends privacy protections beyond personally identifiable information to business identifiable information.

Recent events have made the protection of personally identifiable information a priority. Commerce has moved quickly to establish policies and make available practical protections for employees to use in safeguarding personally identifiable information as well as other sensitive information. All Commerce Privacy Impact Assessments and Privacy Policy Statements are available on Commerce's Web site.

***Electronic Government***

The Commerce Department continues to expand its already extensive use of electronic government to perform its mission better, to enhance support to citizens, businesses, and other customers, and to reduce costs. Commerce has long recognized the advantages afforded by electronic government to support its responsibilities in delivering scientific, technical, and statistical information to the public. Commerce uses the Internet as a primary means of disseminating large amounts of data and information as well as supporting online transactions. The Department has over 100 different transactions available on the Internet. Members of the public can apply for fishing permits, file patent and trademark applications, order nautical charts and environmental data, file economic census data, register a search and rescue radio beacon, analyze economic and demographic data, and read publicly available patent and trademark files --- all electronically.

The Office of the CIO ensures that E-Government considerations are given high visibility in Commerce's information technology capital investment and control process. Through selection and control reviews by the CITRB, senior Commerce management examines initiatives for E-Government possibilities and suggests E-Government alternatives, where sensible.

***Project Management***

Commerce recognizes the importance of effective project management to the success of IT investments. To ensure that Commerce has skilled, qualified project managers to direct its major IT investments, we have launched several initiatives. The first is that IT investment sponsors must submit resumes, in a prescribed format, for project managers and contracting officers for any new or existing investment that is reviewed by the CITRB. This allows Board members and Office of the CIO staff to review the qualifications and experience of the project managers and contracting officers and weigh these factors in their evaluations of the IT investments. For large investments, the project manager must be assigned full time to the investment in question. In concert with CIO Council guidance and tailored to Commerce's IT investments, Commerce formulated project manager qualification and certification guidelines and validated all project

managers of major investments as meeting the CIO Council's September 2004 *Federal IT Project Manager Guidance Matrix* certification and experience requirements. In FY 2007, Office of CIO staff, in concert with staff of the Office of Acquisition Management and the Office of Human Resources Management, are developing an implementation plan to address the requirements of OMB's new Federal Acquisition Certification for Program and Project Managers.

Second, Commerce and its constituent operating units offer project management training for all project managers who need it. In FY 2004, the Office of the CIO held two nine-day sessions, each for 25-30 students and in FY 2005, we trained an additional 44 students. Beginning in FY 2006, the Commerce Office of Human Resources Management developed a project management education and training curriculum and trained an initial group of 30 employees. This training program continues, and in FY 2007, another 40 students graduated. This training develops knowledge in all nine Project Management Body of Knowledge areas and prepares students for Project Management Institute certification as a Project Management Professional (PMP®).

Third, we have embarked on regular, systematic Earned Value Management (EVM) analysis of IT investments under development. The intent is to monitor the performance of Commerce projects regularly to provide early warning of projects that may not be meeting cost, schedule, or performance goals, allowing course correction to bring the development effort back on track. The EVM analysis has been supported by focused training sessions on EVM techniques and one-on-one consultations. Further, operating unit CIOs are required to conduct operational analyses to certify that steady-state investments meet cost, schedule, and performance goals and to identify strategic opportunities for improvements. These requirements are founded on a formal policy on EVM and operational analysis. Commerce tracks EVM for 12 investments. On average, the investments are within 3 percent of cost and schedule goals, well under the 10 percent tolerance established by OMB.

In support of all of the above, we have established a central source for project management expertise, advice, and guidance, which focuses on four strategic initiatives:

- Establishment of standards and guidelines for the use of project management best practices throughout the Department;
- Providing project management services and support for select IT projects;
- Providing DOC program and project managers with technical assistance to ensure successful performance in presentations before the Commerce IT Review Board; and
- Mentoring, training, and guiding project teams as they learn and use new project management best practices.

***IT Workforce Development***

The IT Workforce Committee of the Federal CIO Council, in partnership with the Office of Personnel Management (OPM), conducts a biennial Web-based survey of IT employees in the Federal workforce. The survey collects information regarding IT employee skills, certifications, and competencies. The data from the survey provides a foundation for IT workforce development efforts at Commerce. We are now engaged in target setting and gap analysis, making the assessment process more valuable. The Office of the CIO has partnered with the Office of Human Resources Management to define a cohesive IT workforce development program, using this information as a reference point, and submitted an IT Workforce Development Plan to OMB. In addition to the training and development activities already underway for project management and IT security, the Plan outlines activities to improve skills in enterprise and solutions architecture development. We are tracking our progress quarterly against the plan.

Commerce launched its new Commerce Learning Center (CLC) on June 1, 2007. The CLC replaces the GeoLearning Management System and will provide access to online training. Throughout the remainder of calendar year 2007, Commerce will phase in the system's full functionality including: online training history from the GeoLearning Management System; scheduling and tracking of all types of training to meet Office of Personnel Management requirements; management of individual professional

development rosters and reports; distance learning through chat rooms and bulletin boards; and more. This project supports the achievement of the President's Strategic Management of Human Capital initiative as well as Expanded Electronic Government. The CLC will be particularly useful for role-based IT security training.

Commerce is actively engaged in outreach programs to attract, recruit, develop, and maintain a viable and diverse workforce, responsive to the mission needs of the Department and the strategic objectives of our various operating units. The Office of the Secretary operates an Executive Leadership Development Program and an Aspiring Leaders Development Program for high potential employees. Commerce offers a number of intern programs to high school students as well as postsecondary students at both the undergraduate and graduate levels.

## Conclusion

In conclusion, since information technology (IT) expenditures constitute such a large portion of the Commerce annual budget (about 20 percent, or $1.7 billion), it is imperative that special management attention be given to the Department's proposed and continuing IT investments. This is done through the Capital Planning and Investment Control process, which continues to be strengthened to provide broader and deeper analysis of proposed new IT investments, projects under development, and projects that have completed deployment as well as of the overall performance of the portfolio. Where the cost, schedule, or performance goals of IT investments are not yet being fully achieved, the processes in place have detected the problems and directed corrective action. And, for the most significant IT development project that the Department is undertaking at this time, the Decennial Census, special reviews and oversight have been implemented, identifying opportunities for improvements as needed. The Department of Commerce's inclusion on OMB's High Risk and Management Watch Lists has helped focus some of the discussion, identify specific areas for improvement, and capture senior management attention.

TESTIMONY OF DANIEL G. MINTZ
CHIEF INFORMATION OFFICER
U.S. DEPARTMENT OF TRANSPORATION
BEFORE THE
SUBCOMMITTEE ON FEDERAL FINANCIAL MANAGEMENT
COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

September 20, 2007

Chairman Carper, Ranking Member Coburn and other Members of the Subcommittee, thank you for the opportunity to appear before you today to discuss issues relating to the Department of Transportation's (DOT) Information Technology (IT) programs, specifically those that are included on the Office of Management and Budget (OMB) Management Watch List, the OMB High Risk List and the Government Accountability Office (GAO) High Risk Series.

My name is Dan Mintz; I have been the Chief Information Officer (CIO) for the DOT since May 1, 2006. In that capacity, my responsibilities include serving as the Vice Chair of the DOT Investment Review Board, which oversees all major IT investments for the Department.

I came to the Government from Sun Microsystems. During my years at Sun, I managed IT programs similar in magnitude to those being discussed here today and understand the need for senior management review and oversight to ensure that all risks are properly mitigated. Many of the lessons learned during my time at Sun have helped me to more fully appreciate the issues facing DOT IT program managers and what we as a Department need to accomplish.

My testimony will address three IT investments (that are included on the Watch List and High Risk Lists) and some general information concerning one of our projects designated by GAO as High Risk. I also will share with you progress made regarding IT governance activities. Throughout these examples I will point out what I have found has worked well and not as well in improving IT performance at the Department.

**OMB's Management Watch List**

Let me first start with a success story for the Department. As you are aware, every year after reviewing each agency's portfolio, OMB evaluates the business cases for each major investment. Some become grouped as those OMB considers as "Well Planned and Managed" and the remaining ones are placed on their "Management Watch List". In September 2006, we forwarded 47 business cases associated with our major programs to OMB for the Budget Year 2008 submission, and of those, 38 were placed on the Management Watch List. OMB's concerns related to specific aspects of the individual investments, including Project Management, Acquisition Strategy, Security and Privacy, Risk Management, Alternatives Analysis, Enterprise Architecture, and/or Cost and Schedule Performance. Remediation plans were developed for each business case and efforts were undertaken to address the concerns. Senior managers within each Operating Administration were made aware of the concerns, and became personally involved in the resolution of all issues. The Department made steady progress in remediation efforts and by March 2007, 90 percent of those programs were remediated.

As of today, one program remains on the Management Watch List, our Combined IT Infrastructure, with program oversight residing within my immediate organization. This program is designed to help DOT accomplish economies of scale by better

understanding the department-wide commitments to IT infrastructure, including the investments specific to Operating Administration field offices located throughout the country. This investment is a consolidation of 42 other smaller investments. Currently for this program to be removed from the Management Watch List, security reporting needs to be further refined. I and my staff continue to focus on developing acceptable business solutions to more effectively manage this investment.

**OMB High Risk List**

The Department currently has 22 IT projects on the OMB High Risk List, including 16 mission related programs and six electronic Government (eGov) investments. The current list is the result of negotiations with OMB with the exception of the Combined Infrastructure and Consolidated Grants investments which were added due to the delay in remediation efforts for Budget Year 2008. These programs are regularly briefed to DOT senior managers to address variances. Also, the Department gathers detailed information on these programs, and when determined necessary, programs are forwarded to the Departmental Investment Review Board for review. My office continues to monitor each of these programs on a monthly basis and submits quarterly reports to OMB.

I would like to highlight a number of the programs currently on the OMB High Risk List to give you an idea of the issues at hand, as well as the management attention being given. We at the Department consider these programs to be a high priority as well as high risk. I will address the following programs: the Federal Aviation Administration's (FAA) Telecommunications Infrastructure, Consolidated Grants and FAA's Traffic Flow Management.

**FAA Telecommunications Infrastructure (FTI)**

FTI is the primary means through which the FAA will obtain the telecommunications services it requires through the year 2017. Under this program, the FAA is replacing eight separate legacy networks with a single, integrated network. FTI enables the FAA to reduce the operating costs for its telecommunications enterprise. The public will benefit from the FTI program through lower operating costs and support of modernization initiatives that will increase the capacity of the U.S. civilian air traffic control system and reduce delays.

This program has had its challenges over the past years; however, I am pleased to report that after more involvement at the Departmental level, and continued commitment of the program management team, the program is back on track. Through many discussions between OMB and senior Departmental staff, this program has been restructured. Generally, over the past year this program has seen remarkable improvement in meeting cost and schedule goals. There are two major challenges facing the FTI program at this point in time: (1) Coordinating the timely disconnect of legacy services used by the Department of Defense (DoD); and (2) Designing solutions for unique FAA interfaces so that the services can be transitioned to FTI.

(1) The first challenge is important because the FAA's ability to decommission legacy networks is contingent upon the DoD taking action in a timely manner to disconnect legacy circuits after the operational service has been cutover to FTI. The FAA is proactively engaging high-ranking DoD officials to obtain their commitment to support this effort. A Memorandum of Understanding (MOU) will be established between the FAA and DoD to formally document roles and responsibilities.

(2) The second challenge is important because the FAA's ability to decommission FAA-owned components of legacy networks is dependent upon the transition of all services, including those with unique interfaces that are carried on FAA-owned legacy networks. As part of the mitigation of this risk, the FTI program has a test bed facility at the FAA's William J. Hughes Technical Center to perform integration testing between FTI solutions and the end user systems. In addition, the FTI program has proceeded with the transition of leased legacy telecommunications services that support the unique interfaces so that the cost savings objectives of the program continue to be met while an FTI solution is developed to replace the FAA-owned portion of the legacy service.

**Consolidated Grants**

The Department annually awards approximately $70 billion in grants to promote fast, safe, efficient, and convenient transportation for the American people. These grants are managed using established processes and procedures which are supported by dedicated information systems throughout many of our Operating Administrations. The goal of the Consolidated Grants effort is to move DOT towards a more unified approach to grants management by integrating and consolidating current systems and processes. This program is currently on the OMB High Risk List due to fact that for Fiscal Year 2007 we were unable to complete all necessary remediation efforts by June 2007.

The primary challenge facing the Grants Consolidation effort is balancing the benefits from integration and consolidation with the ultimate requirement to successfully deliver and manage grants. There are unique challenges associated with the significant systems integration and business process re-design, especially since any delay will impact the grantees and the associated appropriated funds. Grants management systems are

unique since they cross numerous functional boundaries including financial management, grant program management, appropriations and mission oriented functions. Within DOT, the effort is further complicated by a multitude of links to systems from States, localities, and other Federal systems.

The Department is working with OMB to determine the most effective and efficient way to process Departmental grants, keeping in mind the recipient constituencies and the reimbursable and non-competitive nature of our grant programs. In response to this guidance, DOT will be performing a "fit/gap" analysis of the three major DOT grants management systems, FAA's System of Airports Reporting (SOAR), the Federal Highway Administration's Fiscal Management Information System (FMIS), and Federal Transit Administration's Transportation Electronic Award Management (TEAM) system relative to the Grants Management Lines of Business Consortium Leads and will continue with any associated migration planning.

**FAA Traffic Flow Management (TFM)**

The Traffic Flow Management system is the Nation's single source for capturing and distributing detailed air traffic information to the aviation community for coordinating air traffic. When severe weather, congestion and/or outages impact the National Airspace System (NAS), TFM provides timely flight data to all stakeholders and traffic management specialists to revise flight schedules and minimize system delays. Currently this program is within the acceptable 10 percent variance for both cost and schedule.

The greatest challenge confronting this program is maintaining requirement stability. Currently, requirement stability will be maintained by freezing the current

legacy system, monitoring programmatic risks with monthly status meetings, and conducting monthly meetings between the modernization personnel and the enhancements team

**GAO High Risk Series**

Transitioning to the GAO High Risk programs, I will address FAA Air Traffic Control Modernization which has been designated by the GAO as a high risk program since 1995. This modernization effort, which includes the acquisition of new systems and facilities, has been and will continue to be a major effort for the Department. The FAA is committed to improving processes resulting in better decision making, cost savings and achieving results. GAO is tracking FAA's progress in the following six key areas: Acquisition Management, Cost Accounting and Estimation, Enterprise Architecture, Investment Management, Human Capital and Deployment. While some of the individual projects that make Air Traffic Control Modernization have experienced cost overruns, schedule slippages and performance shortfalls in the past, we have seen improvements over the last several years, which have been acknowledged by the GAO.

These improvements have occurred in part due to senior management's focused attention on the modernization effort. Some of the accomplishments to date include: the formation of an Executive Management Team and supporting Project Team, development of a Project Plan and Measurement scorecard for reporting status and problems, inclusion in the FAA Flight Plan, and an objective review of accomplishments and deliverables to verify implementation. Risk mitigation efforts continue and we are working to ensure that lessons learned are systematically addressed in Agency processes and requirements. We will continue to strive for further significant measurable improvements.

I have been participating in quarterly review meetings with FAA and the GAO and can tell you first hand that this effort is making progress and senior mangers will continue to track the efforts needed to reduce risks associated with air traffic control modernization. The GAO has acknowledged that the FAA has a comprehensive, corrective action plan in place, which meets their expectations for improvement. We understand that the GAO will be looking for full implementation of all planned activities and that planned "initiatives have been monitored by the FAA and validated as being effective and sustainable". We appreciate the GAO's efforts with regard to air traffic control modernization and welcome its continued assessment of the FAA's progress.

**Governance Activities**

Since I started at the Department, I have more fully involved the Operating Administration CIOs in all programmatic areas. I want to share another success story that relates to the re-shaping of our IT governance processes within the Department where we refocused attention on the further development of the CIO Council. The CIO Council is comprised of CIOs from all of the Operating Administrations and my staff. The Council meets monthly and periodically reviews a number of cross-cutting and other proposed IT investments. An enhanced prioritization process was recently introduced so that proposed cross-cutting IT investments are reviewed more closely based on the mission needs. As a result of these recent changes, high priority IT initiatives will have greater focus throughout the Departmental review cycle. Recommendations from the CIO Council that involve major investments are forwarded to the DOT Investment Review Board for final decisions. We are also seeing evidence of more meaningful

governance processes being put into place in the Operating Administrations. While we have more work to do relating to full implementation, we are on the correct path.

Over the next few years, the Department will undertake a number of initiatives that we strongly believe will both improve ongoing program management and the way we are more effectively meeting mission needs overall.

First, we are in the process of establishing a Department-wide program management organization. The organization will establish systematic processes and requirements for a consistent approach to program management throughout the Department. I have begun activities to establish a Business and Infrastructure Transformation team which will focus on internal process improvement, project management improvement, and the initiation, oversight, and execution of internal Departmental projects.

Second, we will continue to ensure that those programs identified as High Risk and High Priority are reviewed by senior managers as well as the Investment Review Board when cost and schedule variances exceed given thresholds (i.e., 10 percent). I want to closely track the programs by focusing on trends so that issues can be addressed long before thresholds are exceeded.

Third, I am implementing a plan to effectively address both technical and functional performance. We will be creating performance milestones developed with more precise indicators tracking program success. In addition, programs will be evaluated on a continual basis to assess whether they are routinely meeting their mission goals. Part of our plan is to assist program managers in developing these milestones and performance indicators.

Fourth, we are addressing the issue of Earned Value Management. This early warning mechanism will further assist program managers in addressing risks. We need time to implement fully and successfully Earned Value Management techniques and are experiencing some challenges. We find ourselves in a similar situation as most other civilian agencies in that we are unable to fully address all of the thirty-two criteria for a certified Earned Value Management System. Currently we are trying to adequately address the surveillance and financial criteria. At this time, the Department is participating in a civilian agency and industry working group to develop a better working relationship with our service providers and to ensure that we are all working towards the same program management goals.

Finally, this year we developed an improved ranking of investments across the Department to better determine the "health of our investments" and we plan to update the results on a quarterly basis. Over time we plan to ensure our ranking process takes into account a more complete portfolio and we plan to better prepare our executives to understand the value of each investment and ensure they can make informed decisions based on business priorities. This insight will improve the investment management process overall.

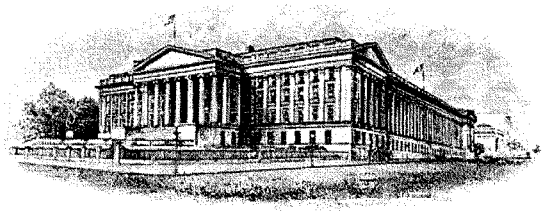
**Summary**

In conclusion, significant progress has been made, and is continuing to be made to fully leverage information technology to meet the Department's mission. I am convinced we are making a difference. Significant challenges remain, including the need to continue to improve our program management skills, manage project risks and continuously monitor program performance so that management can quickly and

effectively mitigate issues before they become troubled investments. We must continue to extend our partnerships with industries to ensure that our transportation programs deliver quality products and services to the general public at all times and help ensure that we are adopting the proven program management practices found within both the public and private sector today.

Our experience is that when we develop transparent processes, collaborate with senior business owners and budget officials, and follow a consistent and robust project approach, we are able to keep most of the IT investments off the Management Watch List or have them quickly removed. When we do not accomplish one or more of those goals, the results are far less positive.

Because of the importance of transportation to the Nation's economic well being, we receive attention from many sources of oversight, not only including those listed here, but the DOT Inspector General's Office, as well as our own Departmental and Operating Administration management. Over the years we have learned to maximize the value of their input however challenging their opinion may be. Again, I thank you for the opportunity to appear before you and I look forward to answering any questions that you may have.



## U.S. TREASURY DEPARTMENT OFFICE OF PUBLIC AFFAIRS

### TESTIMONY OF CHIEF INFORMATION OFFICER MICHAEL D. DUFFY BEFORE THE U.S. SENATE COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS SUBCOMMITTEE ON FEDERAL FINANCIAL MANAGEMENT, GOVERNMENT INFORMATION, FEDERAL SERVICES, AND INTERNATIONAL SECURITY

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to appear before you to discuss the management of information technology (IT) investments. Like the other Federal agencies represented here today, the Department of the Treasury is diligently working to improve the management of information technology, especially, those investments considered to be "high risk." The Department has experienced its share of IT challenges in recent years. In response, Secretary Henry Paulson made IT management one of his top priorities when he took over the Department last year. As a new member of the Secretary's senior management team, I am fully committed to improving our ability to effectively manage our IT investments and receiving value from these investments on behalf of the Congress and the American Taxpayer. With your permission, I will summarize my remarks and submit my complete written testimony for the record.

**My Personal Background**

I appear before you today as the new Chief Information Officer (CIO) of the Department of the Treasury. I began work on September 10th of this year. Prior to joining Treasury, I served at the Department of Justice (DOJ) for 15 years, the past 4 as the Deputy CIO for e-Government.

**Strengthening Treasury's Investment Management Capability through Executive Leadership**

Treasury has an IT portfolio that totals $2.958 billion – about 25 percent of the Department's budget. Of the total, $2.398 billion funds Treasury's 63 major investments, the remaining $560 million support 222 "non-major" investments.

The Department and its bureaus rely significantly on information technology to carry out its extensive and varied mission. Our largest investments are at the Internal Revenue Service (IRS), which relies on IT to administer its tax programs. The Department also uses IT to support other critical purposes, such as analyzing financial intelligence information to combat terrorism.

Given the importance of Treasury's IT investments, the Government Accountability Office (GAO) reviewed and issued a report on Treasury's IT management. The July 2007, GAO report found that Treasury has established many of the capabilities needed to select, control, and evaluate its IT

investments. However, GAO also found several significant weaknesses. Due to these findings, GAO identified the need for Treasury to implement an executive level review board to oversee IT investments through the entire life cycle of the projects. The GAO also recommended that Treasury implement a comprehensive process by which to manage all IT investments, irrespective of size, scope or dollar value.

The Department concurred with the GAO recommendations and began to immediately address the key issues raised. I strongly support these steps and believe this is a clear indication of the commitment of the Department's leadership to rapidly and comprehensively improve Treasury's overall management of IT.

As the new CIO, I have taken particular interest in the GAO findings and recommendations. I believe regular engagement of our Department and bureau executives and continuous attention to the progress of Treasury IT investments are integral to Treasury's successful planning, implementation and use of IT.

In the coming months, the Department intends to make several key changes to address its IT management issues. Foremost, we will revitalize the Executive Investment Review Board during the first quarter of FY 2008. Doing so will bring greater executive involvement in Treasury's management of IT, and will further ensure our IT portfolio decisions are driven by our business requirements and strategies. We also intend to better leverage existing management tools and processes that can be used to improve investment management capabilities across Treasury.

Notwithstanding the planned changes I just mentioned, I note that the Department has already taken steps to improve Treasury IT management. To ensure that **all** IT investments receive comprehensive oversight, the Department began implementing process changes in June 2007 to ensure that "non-major" investments are formally selected by the appropriate Treasury Governance Board and reviewed quarterly to validate cost, schedule, and performance goals.

**Conclusion**

In summary, the Department has made strides in the past year to improve the management and performance of its information technology resources. Work remains to be done. However, these efforts - and the actions we have planned to engage executive stakeholders across the Department - will result in effective IT management at Treasury. In so doing, Treasury IT programs will provide value-added services to the bureaus and offices performing Treasury mission functions, in a manner mindful of the taxpayer's investments in those programs.

Thank you for the opportunity to participate on this panel. I would be happy to answer any questions that you have at this time.

-30-

**Statement for the Record**

**Scott Charbo**
**Chief Information Officer**
**U.S. Department of Homeland Security**

**Before the**

**United States Senate**
**Committee on Homeland Security and Governmental Affairs**
**Subcommittee on**
**Federal Financial Management, Government Information, Federal Services and International Security**

**September 20, 2007**

Good Afternoon Chairman Carper, Ranking Member Coburn, and distinguished Members of the Subcommittee, I appreciate the opportunity to address you on the Department of Homeland Security (DHS) inclusion on the Office of Management and Budget's (OMB) High Risk and Management Watch Lists.

DHS has 76 information technology (IT) investments on the Office of Management and Budget's (OMB) High Risk List. Of these, 15 represent DHS' participation in OMB's E-Government Initiatives or Lines of Business with a migration component or where DHS is a shared service provider. These investments were designated by OMB as high risk and include E-Travel Migration, Financial Management Line of Business Migration and Legacy System, Human Resources Line of Business Migration and Legacy System, E-Training, E-Human Resource Integration Migration, E-Training Legacy Systems; E-Authentication Migration and Shared Service Provider, E-Rulemaking Migration and Legacy System, Federal Asset Sales Migration Sales Center and Legacy System, and Integrated Acquisition Environment Migration. Of DHS' 105 major investments submitted to OMB in the FY 2008 budget, OMB placed 87 on its Management Watch List. DHS improved justification for all but 20 from January through June 2007. We are managing or remediating issues from these 20, including a range of issues relating from cost/schedule, privacy statements - to IT security.

DHS attributes its success in removing these investments from the Management Watch List to the strength of its information technology (IT) capital planning and investment control (CPIC)

process, which is discussed below, and to its commitment to improve IT security. The Chief Information Officer frequently briefed the DHS Management Council on the status of the completion of Certification and Accreditation (C&A) packages. IT security has been a topic at every Chief Information Officer Council meeting for the past year, with an emphasis again on completing high quality C&A packages and ensuring that our C&A process was repeatable and reliable. Component Chief Information Officers, supported by their senior management, were fully apprised of the importance of the C&A packages and ensured that the work was completed as needed in their respective Components.

## Capital Planning and Investment Control

DHS CPIC process supports effective decision-making and project management of the DHS investments in capital assets. The purpose of DHS CPIC process is to formulate, manage, and maintain its portfolio of investments as critical assets for achieving success in the DHS mission. The DHS CPIC process is guided by Departmental and Component strategic and business priorities, and provides a framework for appropriately balancing existing and proposed investment options and their support for DHS' core mission.

The DHS CPIC process is comprised of four phases: Pre-Select, Select, Control and Evaluate. The CPIC phases support the initial conception and development of the investment, the selection of the investment from among competing investments, and the monitoring and evaluation of investments for acceptable performance and progress against objectives.

The process begins with a request for Components to develop Resource Allocation Plans (RAP) that describe the Components' IT priorities of all their Investments. After review and analysis, DHS prioritizes the investments and decides which investments will be included in its portfolios. DHS then evaluates, scores, and selects investments for inclusion in the budget request for the budget year under consideration, selecting investments that best support the mission. The process targets technically and financially sound projects aligned with the President's Management Agenda (PMA) and DHS business priorities. Final budget determinations are documented in the form of Resource Allocation Decisions (RAD).

The RAD decisions drive the development of OMB Exhibits 300 and 53. At the end of the select phase, the Department has a scored and ranked list of Exhibits 300 for all major investments and an Exhibit 53 for all level 1 through 4 IT investments.

The Control phase ensures that each project is performing within acceptable cost, schedule, and performance parameters and that it is subject to continual assessment and mitigation of potential risks. Project managers must monitor and control the expenditure of funds to ensure that the project delivers the promised capability in accordance with the approved cost, schedule, and performance baseline. Through timely oversight, quality control, and executive review, the Department manages its investments in a disciplined and consistent manner that promotes the delivery of quality products and results in investments completed within scope, on time, and within budget.

Existing government regulations require Federal Agencies to establish a regular review process for their investments as part of its CPIC process. To comply with these regulations, DHS has established a Periodic Reporting Process. DHS projects use EVM (for development, modernization, or enhancement) or Operational Analysis (for steady state) to manage for risk reduction and increased performance. DHS distributes guidance documents on Periodic Reporting (PR), Earned Value Management (EVM), and Operational Analysis (OA) throughout the Department, and provides associated training courses to DHS personnel. DHS' PR, EVM, and OA processes have significantly improved DHS' ability to track and report on investment cost, schedule, and performance variances. The analysis from these processes has been provided to DHS management (most notably DHS' newly identified IT portfolio managers), OMB, and GAO since FY06 Q1. Finally, DHS is currently deploying a business intelligence tool that will allow DHS management to view trends of quarterly Periodic Reporting information that will influence DHS' management intervention. Data elements required to be reported include but are not limited to:

- Acquisition Program Baseline information including dates, approval authority, Independent Validation and Verification (IV&V) information
- EVM data including cost, schedule, and performance status and variance explanations
- ANSI compliance assessment standard 748 verification regarding EVMS
- DHS PM level of certification
- Explanation of "Avoidance of Duplication" where the program is using DHS enterprise level investments or e-Gov initiatives to deliver program capability
- Corrective action plans for variance from cost, schedule or performance based on DHS EVM and Operational Analysis Guidance

## Investment Review Process

The DHS Investment Review Process (IRP) has two distinct objectives:

- Oversight of investments throughout their life cycle through programmatic reviews;
- Portfolio management to achieve strategic goals and objectives and to preclude duplication of effort. Portfolio reviews will be at a much higher and broader level and will look at strategic gaps, among other things, at the functional-portfolio level.

Reviews are tailored to the needs of the project—its acquisition lifecycle, its duration, its strategic importance, and its risk and complexity—so that during its planning phases, the project is aware of potential duplication of effort and of other projects in its functional portfolio that may impact its success. These initial discussions may be several years before funding is available for the work but are important for the Component to understand the ramifications of making specific investment decisions.

The goals of the IRP are to:

- Ensure proper management, oversight, control, reporting, and review for all investments. Reviews are tailored based upon the risk, complexity, and acquisition nature of the investment projects.

- Ensure that investment spending directly supports and furthers DHS' mission(s) and provides optimal benefits and capabilities to stakeholders and customers.
- Integrate CPIC, resource allocation, budgeting, acquisition, and management of all investments to ensure public resources are wisely invested and the requirements of the authorities listed below are achieved.
- Identify poorly performing investments—ones that are behind schedule, over budget, or lacking in capability—so Department executives and project managers can identify and implement corrective actions.
- Allow the Department to understand the strategic gaps in the DHS mission and to manage the overall portfolio to fill those gaps in the most effective manner.

The IRP supports the Future Years Homeland Security Program (FYHSP) through the validation of requirements for funding and the joint use and review of goals and objectives. The IRP also encompasses the periodic reviews of the Acquisition Program Baseline (APB) and of the data provided by project Earned Value Management Systems (EVMS) and is meant to inform both DHS executives and project managers of the performance of investments. The IRP will provide continual oversight of the Department's investment portfolio and its functional segments to ensure that DHS is meeting its objectives in a cost-effective manner.

## Other IT Governance Support

***Portfolio Management***

The DHS Chief Information Officer has implemented the IT Portfolio Management framework to ensure that cross-departmental IT capabilities support the DHS mission and management objectives. Portfolio Management allows DHS to analyze IT investments and assets across organizational boundaries and align IT planning and budgeting with acquisition activities and the enterprise architecture. The DHS Chief Information Officer is developing portfolio coalitions which include representatives from departmental investment managers, portfolio managers and IT personnel to establish enterprise target architectures, transition plans and performance measures that will ensure alignment of IT resources to departmental objectives. This enhanced governance structure will significantly improve visibility into all IT, eliminate duplicative investments and provide senior leadership with a reliable IT decision-making framework.

Portfolio Management stresses analysis of each Investment within the broader context of how it fits into the relevant portfolio. Analysis is conducted to place investments in each portfolio in a "Value-Risk" quad chart that categorizes the investment as:

1. Consolidate/Divest- Low value, high risk
2. Maximize ROI before divesting- Low value, low risk
3. Evolutionary, improve incrementally- High Value, low risk
4. Transformational – High value, High risk

In portfolios where the target architecture has been defined, the IT Portfolio Management Process is used to assist the DHS Chief Information Officer in choosing which investments

should be utilized as part of the enterprise architecture transition plan, and which investments should be curtailed in favor of those that exhibit best performance.

Analyses performed and recommendations made in the IT Portfolio Management Process are used to inform DHS Chief Information Officer's decisions and are input into Investment Review Process discussions. Also, the IT Portfolio Managers will provide subject matter expert support to the DHS Investment Review Board

***Enterprise Architecture***

Enterprise Architecture (EA) is a management strategy for achieving organizational performance improvement and managing change. The EA Plan is derived, in part, from an organization's strategic plan and is used to align IT resources with the organization's mission, vision, goals, and objectives. Tying IT acquisition to the strategic direction and business needs of an organization improves efficiency, reduces redundancy, and frees up resources to be applied to other priorities.

The DHS Enterprise Architecture documents the results realized from the combined capital planning and architecture efforts in reducing redundant systems, reusing existing components, and taking advantage of newer technologies to achieve efficiencies. The high-level overview describes DHS' goals and business needs, and "as is" and "to be" architectures along with migration plans, from business, information, application, and infrastructure views.

Another part of the overall architecture effort is the identification and development of segment architectures, discrete slices of the enterprise that provides a product or service. The segment architecture provides detailed results-oriented architecture and a transition strategy for a section of the enterprise.

The Department's Enterprise Architecture Board (EAB), composed of representatives from across the Department, develop guidance for the Enterprise Architecture Program. This guidance is consistent with the OMB Federal Enterprise Architecture Framework and is designed to enhance the integration of the Component portions of the Enterprise Architecture and provide a consistent picture across all of DHS.

***IT Security and Privacy***

DHS implemented a tool to document the complete inventory of its systems and their security status. Additionally, DHS implemented security policy and guidance that requires Components to perform key program activities such as developing risk assessments, preparing security plans, testing and evaluating the effectiveness of security controls, completing remedial action plans, and developing and testing continuity of operations plans. DHS monitors the C&A status of all systems, both in development and operations, to ensure compliance with DHS policy.

The Department has also established a Chief Privacy Officer, who assists in the review of Privacy Impact Assessments (PIA) as part of the IT capital planning process and established DHS' Privacy Policy.

*IT Acquisition Review*

In December 2006, DHS implemented an IT acquisition review (ITAR) process. The ITAR process supports the DHS Chief Information Officer's review and approval of all IT acquisitions of $2.5M or more. IT acquisitions are defined as services for IT, software, hardware, communications, and infrastructure. The purpose of ITAR is to improve the alignment of IT purchases to the DHS mission and target architecture.

The ITAR process has improved IT investment management by providing visibility into actual IT purchases and providing the Office of the Chief Information Officer (CIO) an opportunity to identify duplicative investments and take corrective action. Over the first six months of its implementation, the ITAR process reviewed approximately $1.8B, which represents approximately 53% of the IT budget identified in the FY07 Exhibit 53.

*Project Management*

To ensure that DHS has skilled, qualified project managers to direct its major IT investments, we have launched several initiatives. The first is that IT investment sponsors must submit resumes, in a prescribed format, for project managers and contracting officers for any new or existing investment that is reviewed by the Investment Review Process. A full time project manager is assigned to large investments.

DHS has embarked on regular, systematic Earned Value Management (EVM) analysis of IT investments under development. The intent is to monitor the performance of DHS projects regularly to provide early warning of projects that may not be meeting cost, schedule, or performance goals, allowing course correction to bring the development effort back on track. The EVM analysis has been supported by focused training sessions on EVM techniques and one-on-one consultations. Further, Component Chief Information Officers are required to conduct operational analyses to certify that steady-state investments meet cost, schedule, and performance goals and to identify strategic opportunities for improvements. These requirements are founded on a formal policy on EVM and operational analysis.

## Conclusion

IT investments constitute approximately $5.0 billion of the DHS annual budget, and it is imperative that DHS give special management attention to the Department's proposed and continuing IT investments. This is accomplished through the CPIC process, which provides a comprehensive analysis of proposed IT investments, projects under development, and projects that have completed deployment; as well as of the overall performance of the portfolio. Where the cost, schedule, or performance goals of IT investments are not yet fully achieved, the processes in place will detect problems and directed corrective action.

# Mr. Paul A. Brinkley
# Deputy Under Secretary of Defense for Business Transformation

Chairman Carper, Senator Coburn, Members of the Subcommittee, thank you for this opportunity to provide information on the progress and direction of Defense Business Transformation.

Our Nation faces diverse challenges and greater uncertainty about the future global security environment than ever before. The Department's mission requires that its business operations adapt to meet these challenges and react with precision and speed to support our Armed Forces. The Department is currently engaged in a massive effort to transform the way it does business and fulfill its commitment to the American people to deliver enhanced defense business capabilities effectively and efficiently.

Over the past few years, DoD has built the foundation for improving and modernizing its business operations by engaging its leadership through the establishment of the Defense Business System Management Committee (DBSMC) and Investment Review Board (IRB) structure, standing up the Business Transformation Agency (BTA), developing the Business Enterprise Architecture (BEA) and its associated Federation Strategy, adopting Continuous Process Improvement principles and implementing Lean Six Sigma methodologies, and by issuing the Enterprise Transition Plan (ETP). More broadly, the Department has focused on five key areas, which together, are critical to the successful execution of our business transformation endeavor: Strategy, Process, Culture, Information, and Technology. We have made significant progress in this effort, and I would like to take this opportunity to review with you our major successes and recent accomplishments.

**Defense Business Systems Management Committee (DBSMC)**

Since its inception in 2005, the DBSMC, in concert with the IRB, has served as the governance structure that guides the transformation activities of the business areas of the Department, such as finance, logistics, etc. As authorized by the FY05 National Defense Authorization Act and reiterated in the DBSMC Charter, the DBSMC has responsibility for approving: the business systems IT modernizations over $1M, the Business Enterprise Architecture (BEA), and the Enterprise Transition Plan (ETP). This gives the DBSMC oversight and control of the BMA's enabler to transformation – material solutions.

Additionally, the DBSMC Charter extends the authority of the DBSMC beyond statutory requirements to include responsibility for ensuring that the strategic direction of the Department's business operations are aligned with the rest of DoD and for measuring and reporting the progress of the BMA's transformation. The DBSMC has also been an integral driving force behind the Department's adoption of Continuous Process Improvement (CPI) / Lean Six Sigma (LSS) methodology and the Department's shared focus on Enterprise Resource Planning (ERP) strategy. The DBSMC has provided invaluable top level direction for the business transformation efforts of the Department.

**Investment Review Process**

The DBSMC/IRB investment review process provides a framework for effective investment decision-making that ensures alignment with the BEA standards and focuses on the needs and priorities of the Warfighter.

The DBSMC has overseen the development and implementation of the Business Capability Lifecycle (BCL), which, when fully implemented, will serve as the acquisition process for all Major Automated Information Systems (MAIS) level systems. The BCL will help resolve long-standing challenges that have impacted the delivery of business capabilities in a timely, well-informed manner – fragmented governance and reporting, a need for better-

defined requirements and more robust upfront solution analysis, and a need for continual access to comprehensive information to enhance visibility for all process stakeholders. Under BCL process rules, initial operational capability of a program must be reached within 12-18 months of the contract award or the business case will not be approved.

The DBSMC/IRB governance structure has produced significant improvement across a broad range of business systems, including two major enterprise-level programs – the Defense Travel System (DTS) and the Defense Integrated Military Human Resources System (DIMHRS). Based in large part on the significant upgrade performed this year to the reservation module within DTS, usage of the tool has increased dramatically. This year, there has been a ~75% increase in vouchers processed monthly basis over last year. The next phase of the program will add additional types of travel to the tool's capability, which will further increase usage. We are also preparing to make the use of DTS mandatory for all trip types that the tool has the capability to handle. Finally, we will align DTS with the government-wide travel system, e-Travel, to capture government-wide travel data that can then be used to make more effective strategic sourcing decisions. Under the direct leadership of the DBSMC, the DIMHRS program has achieved effective governance to keep the program on track for initial operating capability for the Army by October, 2008.

**Business Enterprise Architecture (BEA)**

The BEA has allowed us to establish clear benchmarks for the alignment of business systems to the Department's future business environment. It has also allowed us to make important and measurable progress, as acknowledged by recent Government Accountability Office (GAO) reports.

As we continue to evolve the BEA, a key objective is to produce an architecture that can be harnessed as an executive decision-making mechanism while simultaneously supporting the implementation of information technology systems and services. The recently released *Concept of Operations for Business Enterprise Architecture (BEA) Requirements* addresses

this objective by 1) outlining a further maturation of the Department's architecture development approach that addresses both top-down strategic requirements and bottom-up tactical requirements, and 2) expanding the governance process to encourage users and stakeholders to shape architecture form and content. This approach is already drawing from new sources of requirements, better evaluating the priority of requirements, and providing improved governance for the BEA development cycle.

When BEA 5.0 is released in March 2008, it will help achieve interoperable, efficient, transparent business operations by including and integrating data standards, required business rules and system interface requirements for the enterprise systems and ERP target programs. Including this information also supports alignment to and implementation of the direction of the BMA Federation Strategy and Roadmap.

**Continuous Process Improvement (CPI) / Lean Six Sigma (LSS)**

Lean Six Sigma (LSS) is an important part of the Department's Continuous Process Improvement (CPI) effort. A disciplined improvement methodology, LSS has been endorsed by DoD leadership as the means by which the Department will become more efficient in its operations and more effective in its support of the warfighter. By focusing on becoming a "lean" organization, the DoD will eliminate waste, improve quality and put its resources and capital to the best use in meeting the goals in the Enterprise Transition Plan. On April 30, 2007, the Deputy Secretary of Defense instructed the Office of the Deputy Under Secretary of Defense-Business Transformation to create a DoD CPI/LSS Program Office to drive DoD-wide CPI/LSS activities. Current activities include working with the Defense Acquisition University to create a Green Belt and Black Belt training infrastructure, tracking training and project metrics from all OSD and Component organizations, and selected DoD-wide projects.

One of the most ambitious process improvement projects that has been undertaken to date is an end-to-end reform of the government-wide security clearance process. DoD is working

in close cooperation with the Director of National Intelligence and the Office of Management and Budget on this effort. The interagency team has been charged with creating a new clearance process that is fair, flexible and adaptive, managed and highly automated end-to-end, reciprocal, and delivering timely, high-assurance security clearances at the lowest reasonable cost by December, 2008. The team has completed the first phase of its work.

**Enterprise Transition Plan (ETP)**

The ETP reflects the strategic and tactical partnership between the Enterprise- and Component- levels by providing a big picture view of defense business transformation efforts at every level within the business mission area. In a little over a week, we will release an updated ETP. As we committed to Congress, we have updated this plan every six months since its initial delivery in September 2005. With the publication of the ETP the Department, for the first time, provided its internal and external stakeholders a comprehensive view of the systems and initiatives that will transform the largest business entity in the world. The plan continues to mature and communicates our transformation plans, and provides senior management with a tool for monitoring progress against those plans. All significant milestones in the ETP are shown in 6, 12, and 18 month increments. For example, our most recent publication reflected success on over 83% of the Enterprise milestones detailed in the first version of the ETP. The ETP has also been expanded to include the progress of the Department's CPI/LSS efforts.

**Accountability**

While the DBSMC/IRB governance structure provides direction and oversight at the Enterprise-level, with participation from the Components, we would be remiss if we failed to acknowledge the dedication and commitment the Components have demonstrated in their own transformation. In partnership with the Components, the Department has taken major strides in business transformation by using the strategic concept of tiered accountability.

Tiered accountability requires each tier in the DoD organizational structure, Component or Enterprise, to focus on those requirements specific to their tier and leave the responsibility and accountability for other elements to the appropriate tier. Tiered accountability in the Department encompasses the broad area of policy setting; the detailed establishment of process and data standards; as well as the ultimate execution of business operations.

**Business Transformation Agency Agile and Accountable Workforce**

True transformation requires visionary leaders and an agile, collaborative and accountable workforce that embraces change and achieves results. In the span of less than two years, the BTA has gained a significant robust and organic capability to manage and oversee the Department's transformation efforts. In February 2006, the first permanent BTA Director was selected, providing a constancy of leadership and a focus for Enterprise wide decision making across the Department. And, using the Congressional special hiring authority for highly qualified experts (HQEs), BTA has created a complementary workforce composed of career civilians, term-appointed civilians, military members and contractors who have collectively contributed to our continuing progress in assuring standardization and mitigating the risk associated with large business systems implementations across the DoD. We appreciate Congress' recognition of the need to develop a multi-dimensional workforce and the continued support for hiring HQEs as an integral part of maintaining transformation momentum.

**Working Relationship with the Government Accountability Office (GAO) and the Office of Management and Budget (OMB)**

DoD regularly and proactively engages with GAO and OMB to communicate its progress and achievements in defense business transformation. GAO has acknowledged the Department's progress in several reports over the past two years and both organizations continue to be constructive partners in our overall transformation efforts. GAO's May report, entitled "DOD Business Systems Modernization: Progress Continues to Be Made

in Establishing Corporate Management Controls but Further Steps are Needed" (GAO-07-733) was the most positive NDAA Compliance report the Department has received to date, and contained a single new recommendation and officially closed 10 others. GAO stated the following:

> Given the demonstrated commitment of DOD leadership to improving its business systems modernization efforts and its recent responsiveness to our prior recommendations, we are optimistic concerning the likelihood that the department will continue to make progress on these fronts.

The Department has also been in regular dialogue with OMB regarding a number of transformation initiatives. In both the effort to align DTS and e-Travel and the initiative to reform the Security Clearance process, described previously in this testimony, DoD and OMB are working closely together to bring increased capabilities to the entire Federal government. In other cases, OMB is helping DoD leverage lessons learned from similar initiatives across the Federal space.

We continue to welcome GAO and OMB's insight, as well as that of all our government partners, as we work together to accomplish our transformation priorities and achieve our shared goals.

**Conclusion**

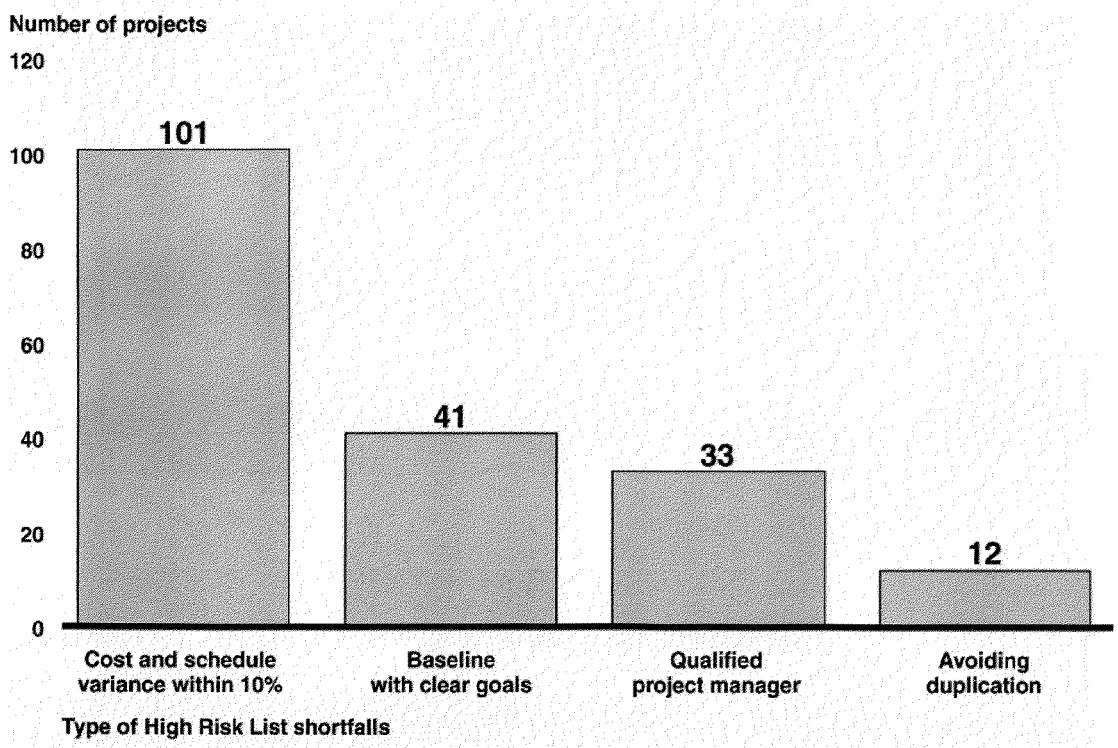
We are pleased that we are showing progress in our business transformation efforts and that this progress has been recognized by our oversight bodies. However, aligning the strategy, controls, people, processes, and technology to truly effect enterprise-wide change in an organization as large and complex as the Department of Defense is an enormous undertaking, which has also been recognized by GAO and OMB. The challenges that business transformation faces should not be underestimated. We believe

though, that our persistent focus on accelerating the pace of change will enable continued progress.

The Department is well aware that business transformation is a marathon and not a sprint. Following this course, the Department has made steady and significant progress, achieving tangible results that are yielding positive outcomes in business operations.

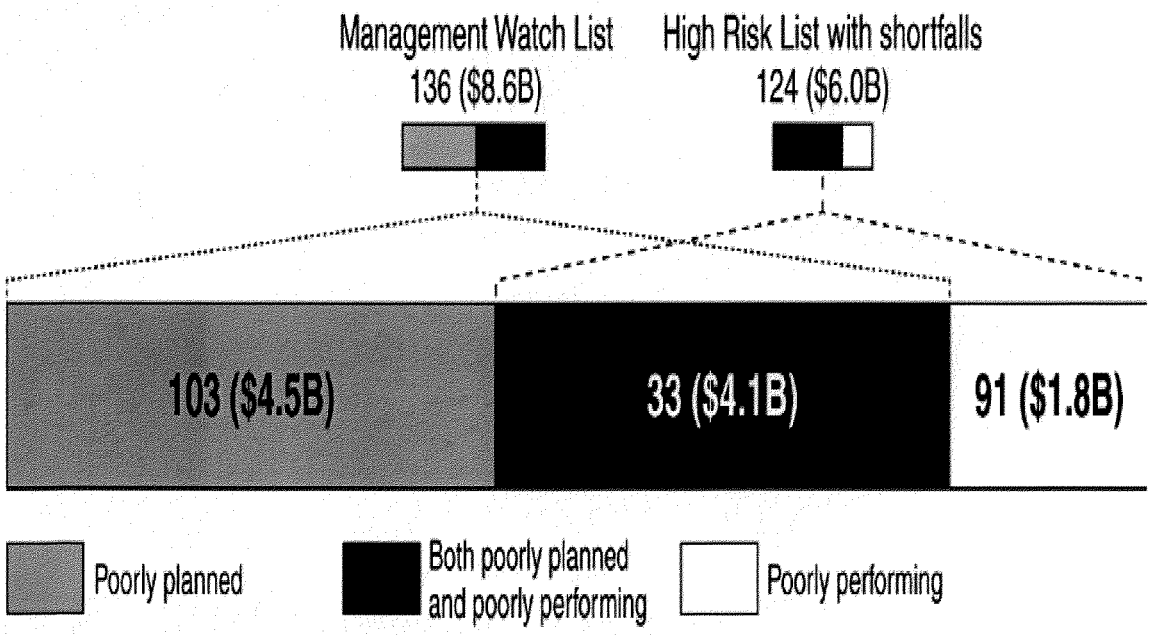
We appreciate and value the support of Congress over the last several years as we have established new governance and discipline in our business transformation efforts. We are anxious to demonstrate that this support will reap benefits for both the taxpayers who fund our efforts and for the Warfighters who defend this nation. Mr. Chairman, we thank you and the members of the subcommittee for your continued support.

**Figure 3: Reported Performance Shortfalls of 126 Projects (as of June 2007)**

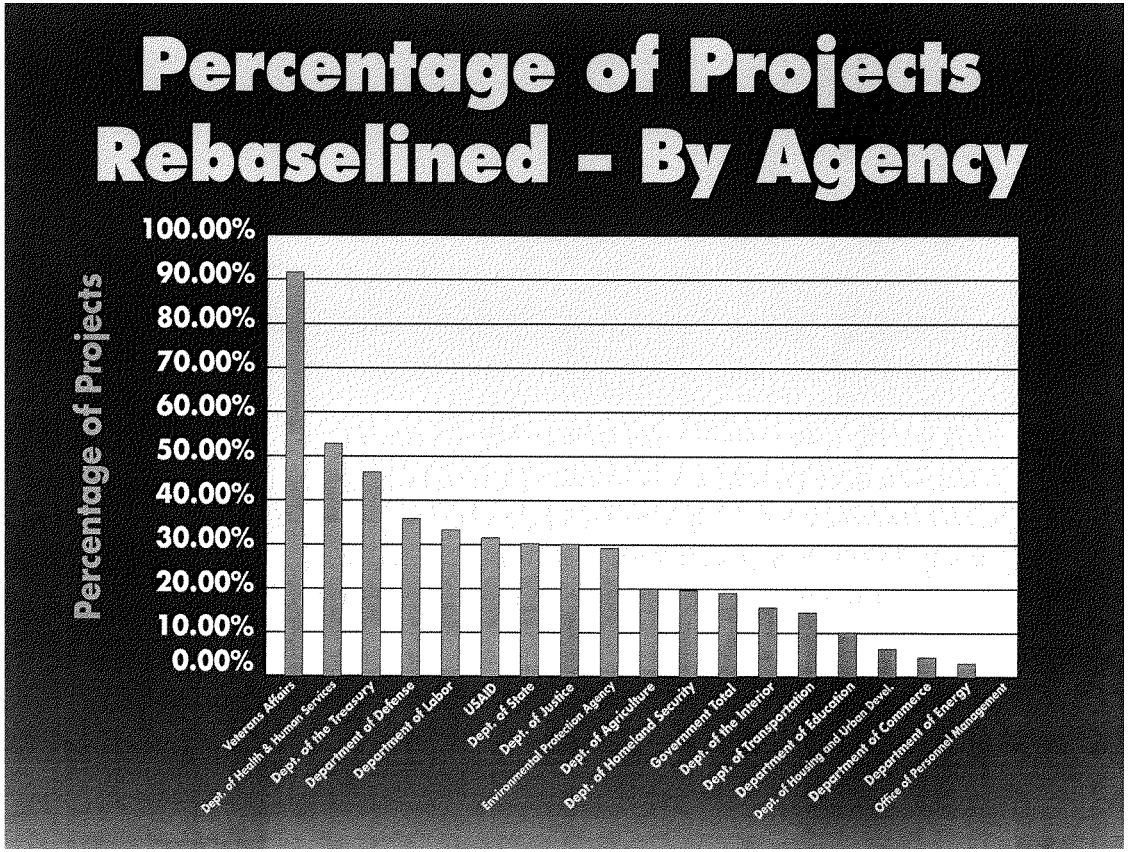


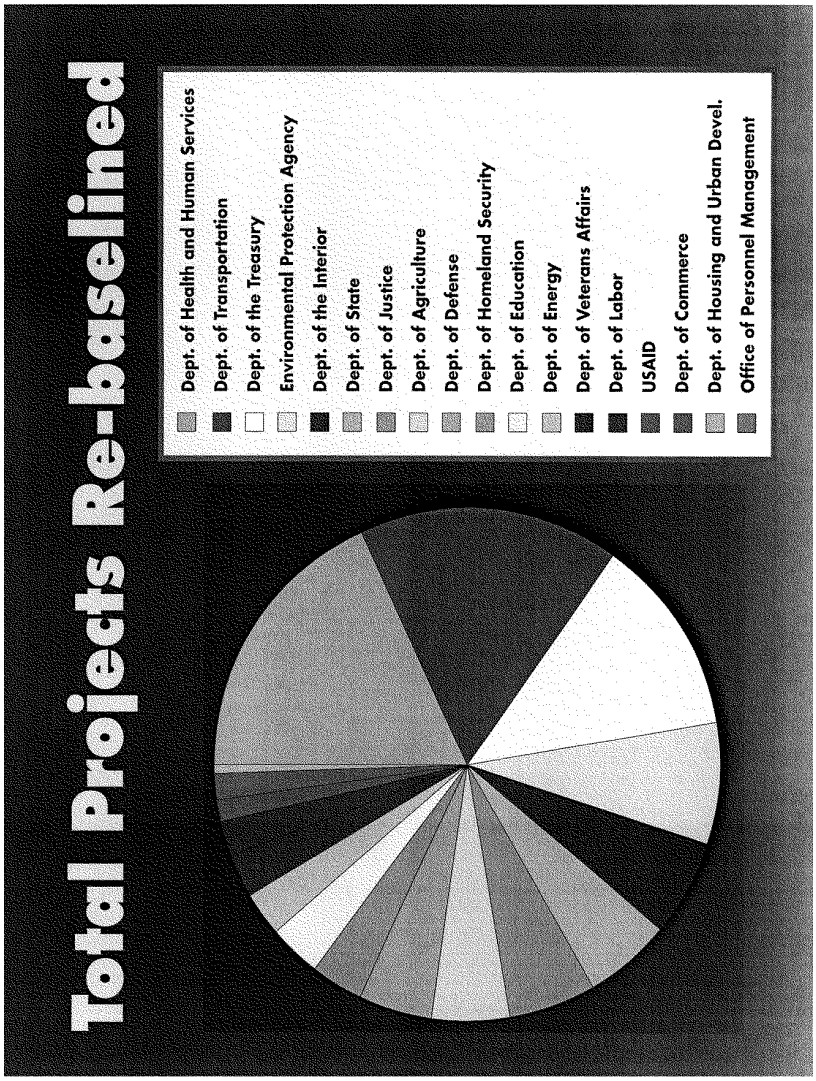

Source: GAO analysis of OMB data.

## Poorly Planned and Poorly Performing IT Projects (as of June 2007)




Source: GAO analysis of OMB data.


Percentage of Projects Rebaselined - By Agency
Percentage of Projects
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Veterans Affairs
Dept. of Health & Human Services
Dept. of the Treasury
Department of Defense
Department of Labor
USAID
Dept. of State
Dept. of Justice
Environmental Protection Agency
Dept. of Agriculture
Dept. of Homeland Security
Government Total
Dept. of the Interior
Dept. of Transportation
Department of Education
Dept. of Housing and Urban Devel.
Department of Commerce
Department of Energy
Office of Personnel Management


Total Projects Re-baselined
Dept. of Health and Human Services
Dept. of Transportation
Dept. of the Treasury
Environmental Protection Agency
Dept. of the Interior
Dept. of State
Dept. of Justice
Dept. of Agriculture
Dept. of Defense
Dept. of Homeland Security
Dept. of Education
Dept. of Energy
Dept. of Veterans Affairs
Dept. of Labor
USAID
Dept. of Commerce
Dept. of Housing and Urban Devel.
Office of Personnel Management

○