

# IRS EFFORTS TO MODERNIZE ITS COMPUTER SYSTEMS

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## HEARING BEFORE THE SUBCOMMITTEE ON OVERSIGHT OF THE COMMITTEE ON WAYS AND MEANS U.S. HOUSE OF REPRESENTATIVES ONE HUNDRED EIGHTH CONGRESS

SECOND SESSION

FEBRUARY 12, 2004

**Serial No. 108-34**

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## **IRS EFFORTS TO MODERNIZE ITS COMPUTER SYSTEMS**

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**THURSDAY, FEBRUARY 12, 2004**

U.S. HOUSE OF REPRESENTATIVES,  
COMMITTEE ON WAYS AND MEANS,  
SUBCOMMITTEE ON OVERSIGHT,  
*Washington, DC.*

The Subcommittee met, pursuant to notice, at 9:08 a.m., in room 1100, Longworth House Office Building, Hon. Amo Houghton (Chairman of the Subcommittee) presiding.

[The advisory, the postponing advisory, and the rescheduling advisory announcing the hearing follow:]

# ADVISORY

FROM THE COMMITTEE ON WAYS AND MEANS

## SUBCOMMITTEE ON OVERSIGHT

FOR IMMEDIATE RELEASE  
October 28, 2003  
OV-6

CONTACT: (202) 225-7601

### Houghton Announces Hearing on IRS Efforts to Modernize its Computer Systems

Congressman Amo Houghton (R-NY), Chairman, Subcommittee on Oversight of the Committee on Ways and Means, today announced that the Subcommittee will hold a hearing to evaluate the Internal Revenue Service (IRS) efforts to modernize its computer systems and hear the outcome of recent independent reviews of the IRS Business Systems Modernization (BSM) program requested by IRS Commissioner Mark Everson. **The hearing will take place on Tuesday, November 4, 2003, in the main Committee hearing room, 1100 Longworth House Office Building, beginning at 3:00 p.m.**

In view of the limited time available to hear witnesses, oral testimony at this hearing will be from invited witnesses only. Witnesses will include the Honorable Mark Everson, Commissioner of the Internal Revenue Service (IRS), a representative of Computer Sciences Corporation, and Larry Levitan, Member, IRS Oversight Board.

#### BACKGROUND:

United States taxpayers pay more than \$2 trillion in taxes each year to the IRS. The IRS's receipt of tax revenue is dependent on a set of computer systems that has evolved over the past 35 years. Nearly all IRS employees depend on these computer systems to do their daily jobs, including more than 70,000 who use these systems to deliver direct service to taxpayers. The IRS network of computer systems is comprised of over 100,000 individual computers, 2,779 vendor supplied software products, and more than 50 million lines of IRS-maintained computer code.

The existing IRS computer systems architecture became operational in 1967. Although significantly upgraded since then, the basic architecture and processing systems date from the 1960s. Since the 1970s, the IRS has made numerous attempts at technological modernization. Success of past efforts was limited, due in part to the IRS's lack of a coordinated, unified plan and approach for fitting all aspects of modernization together.

The current computer systems used by the IRS inhibit its ability to effectively carry out the mission of administering the Nation's tax laws. Maintaining these systems is a major undertaking and gets more difficult every year as older systems replacement parts and programmers are harder by which to come. Here are a few examples of problems caused by the outdated systems:

- American taxpayers expect a level of service from the IRS that rivals the private sector, but IRS systems do not provide the necessary functionality.
- IRS employees must work with taxpayer data that is not timely, resulting in frustration for both taxpayers and employees.
- IRS has trouble accounting for funds and maintaining the security of critical data and systems.

Addressing these crucial needs, managing the inherent risks of modernization, and delivering the level of service taxpayers expect are all goals of the IRS's BSM.

Prior efforts to modernize the IRS's computer systems in the mid-1990s were not successful. These failures prompted the IRS to enter into an innovative contract with Computer Sciences Corporation (CSC) in 1998 to launch the BSM program. Under the contract, CSC assists the IRS to design new systems and helps to identify contractors to perform software development and other tasks. The CSC is referred to as the prime contractor, under the principal BSM contract.

Since mid-1999, more than \$1.3 billion has been appropriated for BSM, including \$391 million for FY 2002 and \$366 million for FY 2003. The House and Senate have now approved an additional \$429 million for FY 2004. The total cost of BSM is expected to be in the range of \$8 billion.

Soon after his appointment, Commissioner Everson requested an independent review of a critical component of the BSM program to be conducted by Software Engineering Institute (SEI) of Carnegie Mellon University. The study focuses on the history of the Customer Account Data Engine (CADE) project and the feasibility of future plans with respect to CADE. The SEI has completed its interim review, and a witness from SEI will appear before the Subcommittee to present its findings and answer questions. The CSC has also commissioned Bain and Company to study CADE and other aspects of BSM and they will appear and be prepared to discuss Bain's findings. Finally, the IRS has conducted an internal review of the root causes of schedule delays and cost increases in BSM projects. The Commissioner is expected to discuss the results of all of the aforementioned studies and to announce changes that he plans to implement.

In announcing the hearing, Chairman Houghton said, "The IRS must bring its systems into the 21st century to provide the high and efficient level of service that our taxpayers expect. We saw this back at our 1998 hearing, and it's critical for us to see that this program is on track."

#### **FOCUS OF THE HEARING:**

The hearing will focus on the IRS efforts to modernize its computer systems and on independent reviews ordered by IRS Commissioner Mark Everson to assess the IRS's BSM program.

#### **DETAILS FOR SUBMISSION OF WRITTEN COMMENTS:**

**Please Note:** Due to the change in House mail policy, any person or organization wishing to submit a written statement for the printed record of the hearing should send it electronically to [hearingclerks.waysandmeans@mail.house.gov](mailto:hearingclerks.waysandmeans@mail.house.gov), along with a fax copy to (202) 225-2610, by the close of business Tuesday, November 18, 2003. Those filing written statements who wish to have their statements distributed to the press and interested public at the hearing should deliver their 200 copies to the Subcommittee on Oversight in room 1136 Longworth House Office Building, in an open and searchable package 48 hours before the hearing. The U.S. Capitol Police will refuse sealed-packaged deliveries to all House Office Buildings.

#### **FORMATTING REQUIREMENTS:**

Each statement presented for printing to the Committee by a witness, any written statement or exhibit submitted for the printed record or any written comments in response to a request for written comments must conform to the guidelines listed below. Any statement or exhibit not in compliance with these guidelines will not be printed, but will be maintained in the Committee files for review and use by the Committee.

1. Due to the change in House mail policy, all statements and any accompanying exhibits for printing must be submitted electronically to [hearingclerks.waysandmeans@mail.house.gov](mailto:hearingclerks.waysandmeans@mail.house.gov), along with a fax copy to 202/225-2610, in WordPerfect or MS Word format and **MUST NOT** exceed a total of 10 pages including attachments. Witnesses are advised that the Committee will rely on electronic submissions for printing the official hearing record.

2. Copies of whole documents submitted as exhibit material will not be accepted for printing. Instead, exhibit material should be referenced and quoted or paraphrased. All exhibit material not meeting these specifications will be maintained in the Committee files for review and use by the Committee.

3. Any statements must include a list of all clients, persons, or organizations on whose behalf the witness appears. A supplemental sheet must accompany each statement listing the name, company, address, telephone and fax numbers of each witness.

The Committee seeks to make its facilities accessible to persons with disabilities. If you are in need of special accommodations, please call 202-225-1721 or 202-226-3411 TTD/TTY in advance of the event (four business days notice is requested). Questions with regard to special accommodation needs in general (including availability of Committee materials in alternative formats) may be directed to the Committee as noted above.

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\* \* \* NOTICE—HEARING POSTPONEMENT \* \* \*

## ***ADVISORY***

FROM THE COMMITTEE ON WAYS AND MEANS

**SUBCOMMITTEE ON OVERSIGHT**

FOR IMMEDIATE RELEASE  
October 30, 2003  
OV-6-Revised

CONTACT: (202) 225-7601

### **Postponement of Subcommittee Hearing on IRS Efforts to Modernize its Computer Systems**

Congressman Amo Houghton (R-NY), Chairman of the Subcommittee on Oversight of the Committee on Ways and Means, today announced that the Subcommittee hearing on IRS efforts to modernize its computer systems, previously scheduled for Wednesday, November 4, 2003, at 3:00 p.m., in the main Committee hearing room, 1100 Longworth House Office Building, ***has been postponed and will be rescheduled at a later date.***

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\* \* \* NOTICE—HEARING RESCHEDULED \* \* \*

# ADVISORY

FROM THE COMMITTEE ON WAYS AND MEANS

## SUBCOMMITTEE ON OVERSIGHT

FOR IMMEDIATE RELEASE  
January 26, 2004  
OV-10

CONTACT: (202) 225-7601

### **Houghton Announces Hearing on IRS Efforts to Modernize its Computer Systems**

Congressman Amo Houghton (R-NY), Chairman, Subcommittee on Oversight of the Committee on Ways and Means, today announced that the Subcommittee will hold a hearing to evaluate the Internal Revenue Service (IRS) efforts to modernize its computer systems and hear the outcome of recent independent reviews of the IRS Business Systems Modernization (BSM) program requested by IRS Commissioner Mark Everson. **The hearing will take place on Thursday, February 12, 2004, in the main Committee hearing room, 1100 Longworth House Office Building, beginning at 9:00 a.m.**

In view of the limited time available to hear witnesses, oral testimony at this hearing will be from invited witnesses only. Witnesses will include the Honorable Mark Everson, Commissioner of the IRS, a representative of the Computer Sciences Corporation (CSC), and Larry Levitan, Member, IRS Oversight Board.

#### **BACKGROUND:**

United States taxpayers pay more than \$2 trillion in taxes each year to the IRS. The IRS's receipt of tax revenue is dependent on a set of computer systems that has evolved over the past 35 years. Nearly all IRS employees depend on these computer systems to do their daily jobs, including more than 70,000 who use these systems to deliver direct service to taxpayers. The IRS network of computer systems is comprised of over 100,000 individual computers, 2,779 vendor supplied software products, and more than 50 million lines of IRS-maintained computer code.

The existing IRS computer systems architecture became operational in 1967. Although significantly upgraded since then, the basic architecture and processing systems date from the 1960s. Since the 1970s, the IRS has made numerous attempts at technological modernization. Success of past efforts was limited, due in part to the IRS's lack of a coordinated, unified plan and approach for fitting all aspects of modernization together.

The current computer systems used by the IRS inhibit its ability to effectively carry out the mission of administering the Nation's tax laws. Maintaining these systems is a major undertaking and gets more difficult every year as older systems replacement parts and programmers are harder by which to come. Here are a few examples of problems caused by the outdated systems:

- American taxpayers expect a level of service from the IRS that rivals the private sector, but IRS systems do not provide the necessary functionality.
- IRS employees must work with taxpayer data that is not timely, resulting in frustration for both taxpayers and employees.
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Since mid-1999, more than \$1.3 billion has been appropriated for BSM, including \$391 million for FY 2002 and \$366 million for FY 2003. The House and Senate have now approved an additional \$390 million for FY 2004. The total cost of BSM is expected to be in the range of \$8 billion.

Soon after his appointment, Commissioner Everson requested an independent review of a critical component of the BSM program to be conducted by Software Engineering Institute (SEI) of Carnegie Mellon University. The study focuses on the history of the Customer Account Data Engine (CADE) project and the feasibility of future plans with respect to CADE. The SEI has completed its interim review, and a witness from SEI will appear before the Subcommittee to present its findings and answer questions. The CSC has also commissioned Bain and Company to study CADE and other aspects of BSM and they will appear and be prepared to discuss Bain's findings. Finally, the IRS has conducted an internal review of the root causes of schedule delays and cost increases in BSM projects. The Commissioner is expected to discuss the results of all of the aforementioned studies and to announce changes that he plans to implement.

In announcing the hearing, Chairman Houghton said, "The IRS must bring its systems into the 21st century to provide the high and efficient level of service that our taxpayers expect. We saw this back at our 1998 hearing, and it's critical for us to see that this program is on track."

#### **FOCUS OF THE HEARING:**

The hearing will focus on the IRS efforts to modernize its computer systems and on independent reviews ordered by IRS Commissioner Mark Everson to assess the IRS's BSM program.

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Chairman HOUGHTON. Good morning everybody. The hearing will come to order.

The purpose of today's hearing is to examine the Internal Revenue Service's (IRS's) Business Systems Modernization (BSM) program. Five years ago, in late 1998, the IRS entered into an innovative contract with Computer Sciences Corporation (CSC) and a number of other companies to modernize the IRS's computer systems that had been designed back in the 1960s. This new program set out to avoid the pitfalls of an earlier failed effort, and it has produced results.

Taxpayers for the first time last year were able to check the status of their refunds on the Internet, and small businesses could apply for an IRS identification number online.

It is a huge program, and some of the key elements have experienced significant delays and cost overruns. These additional costs amount to \$290 million, a sizeable percentage of the \$1.7 billion appropriated for computer modernization through fiscal year 2004.

Recognizing the problem, Commissioner Everson acted quickly to identify the source of these delays by commissioning several independent studies and digging into the details. Today, we are going to hear from the author of one of these studies, Steve Palmquist of Carnegie Mellon University, and from the U.S. General Accounting Office (GAO). In addition, we are going to hear from Larry Levitan, the Chairman of the IRS Oversight Board Committee that produced the review of the IRS computer system modernization. Finally, we are going to hear from the lead contractor, CSC, through the testimony of Paul Cofoni.

Thank you for all being here, and I look forward to your testimony. Before I turn to my associate here, Mr. Pomeroy, I would just like to give a word of thanks to the extraordinary service of a former staff director of this Subcommittee, Mac McKinney. Mac is going to be leaving my office at the end of this month and has provided extraordinary service to us all during his 24 years on the Hill, 6 years with the Committee on Ways and Means, and 3 years as my chief of staff. Mac, where are you?

[Laughter.]

Congratulations and thank you so much. Now I would like to turn to Mr. Pomeroy.

[The opening statement of Chairman Houghton follows:]

**Opening Statement of the Honorable Amo Houghton, Chairman, and a  
Representative in Congress from the State of New York**

Good morning. The purpose of today's hearing is to thoroughly examine the Internal Revenue Service's Business Systems Modernization. Five years ago, in late 1998, the IRS entered into an innovative contract with Computer Sciences Corporation and a number of other companies to modernize the IRS's computer systems that were designed in the 1960s.

The current computer modernization program was designed to avoid the pitfalls of an earlier failed effort, and has produced results. Taxpayers, for the first time last year, were able to check the status of their refunds on the internet, and small businesses could apply for an IRS identification number online.

But, it is troubling that some of the key elements of the modernization program have experienced significant delays and cost over-runs. To date, these additional costs amount to \$290 million, a sizable percentage of the \$1.7 billion appropriated for computer modernization through Fiscal Year 2004.

Recognizing the problem, Commissioner Everson has acted quickly to identify the source of these delays by commissioning several independent studies. Today we are privileged to hear from the author of one of these studies, Steve Palmquist of Carnegie-Mellon University and from the General Accounting Office. In addition, we will hear from Larry Levitan, the chairman of the IRS Oversight Board committee that produced a very thoughtful review of the IRS computer modernization. Finally, we will hear from the lead contractor, Computer Sciences Corporation, through the testimony of Paul Cafoni. Thank you all for being here, and I look forward to your testimony.

I am now pleased to yield to our ranking Democrat, Mr. Pomeroy.

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Mr. POMEROY. Thank you, Mr. Chairman. First, let me echo your praise of Mac McKinney, who I have just enjoyed knowing, working with, and who represents, in my opinion, the finest dimensions of what the professional staff that keep this place running really represent. Mac, best wishes to you.

Commissioner, I appreciate very much your leadership. I think that, speaking as Ranking Member of the Subcommittee on Oversight, the efforts you have made to reach out and keep me fully informed with your management initiatives, I have really appreciated, and I have a lot of respect for what you are achieving. We have seen, in fact, the role of computer technology giving a level of service to taxpayers beyond what they have seen before. I am particularly pleased they can now track the status of their refunds on the computer.

At the same time, I think we can all acknowledge that the computerization of the IRS has certainly not necessarily kept up with computerization of other vast enterprises, public or private, but I would especially say we have been eclipsed by what has occurred in the private sector. I think that we all need to learn by what has happened. We have invested a lot of money, we have had consultants everywhere, and yet the progress may be not as far along as we would have hoped.

So, I will look forward in the course of this hearing to learn from you, Commissioner, as well as some of the contractors about their thoughts in terms of how this is coming and how we might do it better. I think this is square in the strike zone of where the Subcommittee on Oversight has to pay its attention. We need to understand what the Commissioner's major initiatives are, how we can improve service of the IRS to the taxpayers of this Nation, and we need to be prepared to help the Commissioner, as well, with such

focus and maybe additional funding as may be required. Thank you, Mr. Chairman, for this hearing.

[The opening statement of Mr. Pomeroy follows:]

**Opening Statement of the Honorable Earl Pomeroy, a Representative in Congress from the State of North Dakota**

The 2004 tax return filing season is well underway. Nationwide, taxpayers are in the process of filling out and filing their federal income tax returns with the Internal Revenue Service (IRS). IRS's computer systems have improved dramatically in recent years. Millions of taxpayers annually now file their tax returns electronically through E-File or Free File resulting in more error-free returns and quicker turnarounds for tax refunds. A taxpayer can even track the status of his or her tax refund check on the Internet to learn exactly when it will be mailed or deposited directly into a bank account.

Taxpayer services provided to millions of Americans each year have been greatly improved through upgrades to many of IRS's automated systems. IRS employees now have the tools and information needed to resolve a taxpayer's problem while the person is on the telephone with the IRS. Similarly, the IRS is able to direct tax inquiries quickly to employees with special expertise which significantly reduces unnecessary waiting times.

I remain concerned, however, that the IRS has a long way to go toward modernizing its overall computer systems architecture. With a system of 100,000 individual computers, nearly 3,000 vendor-supplied software products, and more than 50 million lines of computer code, it is obvious that the IRS must have a focused, coordinated, and unified plan for the 21st Century. I will be interested in exploring the agency's progress in this regard during today's hearing.

I am particularly interested in learning more about the IRS's apparent inability to deliver on the "big computer projects" involving the master file of IRS records and system-wide infrastructure systems. I have learned that problems include inadequate performance by contractors, overly ambitious project portfolios designed by IRS management, and insufficient direct participation by IRS employees in the management of technology programs.

I look forward to the Subcommittee's discussion of these issues and thank Chairman Houghton for scheduling today's important hearing.

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Chairman HOUGHTON. Thanks. Again, thank you, Commissioner, for being here. We are honored by what you are doing and helping all of us think through this maze of computerization. We look forward to your testimony.

**STATEMENT OF THE HONORABLE MARK W. EVERSON,  
COMMISSIONER, INTERNAL REVENUE SERVICE**

Mr. EVERSON. Thank you, Mr. Chairman, Mr. Pomeroy. I appreciate the opportunity to testify this morning on the status of the BSM program at the IRS. I also want to thank the Subcommittee for your continuing support of the IRS.

The BSM is a key part of our broader agenda at the IRS. Before offering more details about the modernization program, let me set the stage with a few comments on our priorities at the IRS and the challenges we face.

As you know, I have set three priorities for the IRS during my 5-year term as Commissioner. First, we must continue to improve service, making it easier for the taxpayer to understand and comply with the tax laws. Through focused implementation of the IRS Restructuring and Reform Act (RRA) of 1998 (P.L. 105-206), the IRS has measurably improved service to taxpayers and practitioners. We aren't backing away from this commitment to service.

The second area of emphasis is the subject for today, information technology. I will talk about that more in a moment.

The third focus is to strengthen the integrity of the Nation's tax system through enhanced enforcement activities. As you know, the President recently transmitted the 2005 budget request to Congress. It calls for a 5-percent overall increase for IRS, including a 10-percent boost to our enforcement activities.

We have four enforcement priorities. They are to discourage and deter noncompliance, with emphasis on corrosive activity by corporations, high-income individuals, and other contributors to the tax gap; assure that attorneys, accountants, and other tax practitioners adhere to professional standards and follow the law; detect and deter domestic and offshore-based tax and financial and criminal activity; and discourage and deter noncompliance within tax-exempt and government entities and misuse of such entities by third parties for tax avoidance and other unintended purposes.

The budget request addresses each of these priorities, with which you are well familiar from your oversight work, and I am hopeful that you will be able to actively support our proposal for this increased funding.

Now, let me turn to information technology modernization. As you have indicated, the IRS has made progress on major technology applications that provide enhanced services to taxpayers and practitioners. Examples include improved telephone service, electronic filing, and a suite of e-services to tax practitioners, but we have failed thus far to deliver big projects on the master files and infrastructure systems, the focus of our discussion today.

Four studies completed last year consistently identified the following problems in delivering these large efforts: insufficient participation in the technology program by IRS business units, an overly ambitious portfolio, and inadequate performance by the contractor. The IRS is responding by increasing business unit ownership of these projects, resizing the project portfolio, reducing the modernization program from \$388 million in fiscal year 2004 to \$285 million in the President's 2005 request before the Congress now, and revising our relationships with the contractor and assuring joint accountability.

It is this last subject that I want to speak to now. I would like to read to the Subcommittee a letter which I sent yesterday to Mike Laphen, who is the President and Chief Operating Officer of CSC.

"Dear Mike, I want to express my appreciation for your personal and active participation in improving CSC's support of the IRS's modernization effort. I believe that the IRS and CSC have made progress since we began our monthly meetings last August in identifying and addressing the challenges that confront us in modernization. The progress we have made makes it all the more disappointing that CSC has indicated that it will be unable to meet its revised delivery date of April 2004 for the Integrated Financial System (IFS) project."

"While I appreciate CSC's candor and your agreement to conduct the remaining work on the first release of IFS under a capped price arrangement at no additional cost to the IRS, I believe that our joint accountability for advancing modernization requires me to

take action in response to this unsettling development. Accordingly, I have decided to direct our upcoming enforcement modernization projects for collection contract support and filing and payment compliance to other contracts.”

“As you can understand, I am not taking this step lightly. While no doubt unwelcome to CSC, I hope that this decision will lead to a sharpened focus and discipline and will, in fact, enhance the prospects for successful and timely delivery of other modernization projects by CSC. I see this approach as similar to what the IRS has done, as reflected in the President’s 2005 budget request, in limiting the modernization portfolio in order to allow us to sharpen our focus and move more expeditiously.”

“In addition to the decision indicated above, we will carefully assess CSC’s performance on current projects and the results of CSC’s overall program management and integration efforts before awarding any follow-on work for existing projects. I look for CSC to demonstrate success on existing projects as it has recently on the important e-services suite of applications (which is significantly enhancing direct services to taxpayers and practitioners), in order to participate in new IRS modernization projects. In short, we need consistent, high-level performance and service from CSC in order for both sides to benefit from our partnership.”

“Again, thank you for your personal attention to these issues and CSC’s acceptance of responsibility for this most recent delay. I look forward to working together to implement our modernization program successfully. Sincerely, Mark W. Everson.”

This letter accurately summarizes where we stand. I want to assure the Subcommittee that the challenges facing the modernization effort are receiving my full attention. Thank you, and I would be pleased to take any questions and say good morning to Mr. Portman.

[The prepared statement of Mr. Everson follows:]

**Statement of the Honorable Mark W. Everson, Commissioner, Internal Revenue Service**

**Introduction And Summary**

Chairman Houghton, Ranking Member Pomeroy, and distinguished Members of the subcommittee, I appreciate the opportunity to testify this afternoon on the status of the Business Systems Modernization (BSM) program of the Internal Revenue Service—and to discuss our recent review of the program’s health. I also want to thank you for your support in working with the House Appropriations Committee to ensure that the IRS receives adequate funding to carry out the program.

Business Systems Modernization is a key part of our broader agenda at the IRS. Before offering more details about the modernization program, let me set the stage with a few comments on our priorities at the IRS and the challenges we face.

At the IRS, our working equation is service plus enforcement equals compliance. The better we serve the taxpayer, and the better we enforce the law, the more likely the taxpayer will pay the taxes he or she owes.

To support this philosophy of service plus enforcement equals compliance, we are guided by three themes.

First we are improving service, making it easier for the taxpayer to understand and comply with the tax laws. We have divided the IRS into “customer segments”—including wages and income, small, medium and large businesses, non-profits. In the last four years, our toll-free telephone service has risen sharply. Downloads of IRS forms from our website has soared. Electronic filing of taxes has jumped from 29 million in 1999 to 52 million last year and nearly half of all taxpayers are expected to efile this coming year.

Second, we are boosting enforcement, a key emphasis of the President’s 2005 IRS budget request just sent to Congress.

By our best estimates, we lose a quarter trillion dollars each year because taxpayers do not pay their tax voluntarily or in a timely fashion. (This is a rough estimate based largely upon 1988 data from our old Taxpayer Compliance Measurement Program).

Over the last four years, the number of Americans saying it is OK to cheat on taxes rose from 11 to 17 percent. Sixty percent of Americans believe that people are more likely to cheat on taxes and take a chance on being audited.

This drop in compliance coincides with drop in enforcement of the tax law. Since 1996, the number of IRS revenue agents, officers, and criminal investigators has dropped by over 25 percent.

At the IRS we have begun to address the tax gap crisis. We have shifted badly needed resources so we can hire more front-line enforcement personnel—who will primarily focus on non-compliance among high income individuals and businesses.

In addition, I am most pleased and grateful that the President's FY 2005 budget submission requests an additional \$300 million for enforcement activities over the FY 2004 consolidated appropriations level.

What will this extra \$300 million do?

It will help to:

- Discourage cheating and non-compliance, particularly by corporations, high income individuals and tax exempt groups.
- It will help attorneys, accountants and other tax professionals adhere to professional standards and obey the law.
- It will detect and deter domestic and off-shore tax and financial criminal activity.
- Discourage and deter non-compliance within tax-exempt and government entities and misuse of such entities by third parties for tax avoidance and other purposes.

Our third focus is modernization of our information technology, often referred to as Business Systems Modernization or BSM. Most of our tax administration systems are very old and difficult to keep current with today's fast paced environment; they must be modernized.

We are committed to resizing our modernization efforts to allow greater management capacity and to focus on the most critical projects and initiatives. We used comprehensive studies over the summer to help us identify opportunities to improve management, re-engineer business processes and implement some new systems and technology. The FY2005 budget provides \$285 million to continue this effort to replace current business systems and technology.

However, equally important is the critical role technology modernization plays in enabling customer service and enforcement goals. To the IRS, "modernization" is broader than just those parts funded by BSM. To the taxpayer it is the full suite of technology enabled services that we provide, such as irs.gov website and telephone technology.

"Modernization" also includes projects with which taxpayers would not be directly involved, such as replacing our master file system, implementing the on-line security features, and building the modernized technological infrastructure on which all of our future modernization applications will build and depend.

To date, after five years, we have achieved mixed results with the modernization program.

### **Program Challenges**

One aspect of BSM on which there was unanimity is that this program is as complex and challenging as any information technology program in the world. When nominated last February, I began learning about the current Modernization program from both IRS executives and others inside and outside the government. I learned of earlier unsuccessful attempts to modernize the IRS. But I also learned that staff was optimistic they were beginning to control the difficulties encountered in the first four years. We expected to achieve some key milestones in the summer and fall, such as the initial delivery of the system that would start to replace our antiquated tax accounting system, called the Customer Account Data Engine (CADE).

Before the summer was through, it became clear two very significant modernization projects, CADE and the Integrated Financial System (IFS), would experience substantial delays. These were two major setbacks.

These delays were clear evidence that significant problems still existed in the BSM program. Based on both external and internal assessments, it became apparent to me that we needed to address four key elements needed in order to turn the program around:



First, the scope of the projects was far too large. After working very closely with the Treasury Department and the Office of Management and Budget (OMB), and evaluating recommendations we received from the Oversight Board and Congress, we narrowed the scope and number of modernization projects. The IRS management team and the PRIME contractors had taken on too much and been stretched too thin. We did not have the capacity to properly manage such a large portfolio. The result is that we have been unable to devote the resources, energy and attention to meeting our primary goals.

I am pleased to report that over the last year, we made progress in this area. We considerably reduced the size and scope of the modernization program, and have been working with the Department and OMB to seek more opportunities to better balance management capacity with the modernization portfolio, without dramatically reducing the program's effectiveness.

Second, a much greater degree of business ownership and participation was critical. The modernization program will only be successful if the most senior and experienced IRS business leaders take ownership of the program.

While we have a great deal of work to do, we have made some progress in this area as well. I appointed John Dalrymple, who has spent over 30 years focused on front-line taxpayer issues, as the Deputy Commissioner for Operations Support. In addition, I appointed the former IRS CFO, Todd Grams, to the CIO position to bring better management and financial discipline to the technology modernization program.

These management appointments represent a change in the way we have pursued modernization projects in the past. These appointments are only the beginning of bringing more management discipline and increased business involvement to our modernization efforts. Success in this area will require a willingness on our part to deviate from past practices, including a change in the allocation of accountability for modernization projects. We will appoint the appropriate people to these critical projects, clearly set expectations, and hold these people accountable for the results.

Third, we needed significant improvements in the performance of our PRIME contractor. It's no secret that our projects have consistently run late, delivered less functionality than planned, and cost significantly more than targeted. While the PRIME has improved its performance, nevertheless, delays and cost increases persist, as evidenced by the recent slippages in CADE and IFS deliveries. We need to have a PRIME contractor that consistently meets its commitments.

Fourth, we needed fresh and independent assessments from outside experts on the health of the modernization program, as whole, as well as specific projects, such as CADE.

All of the assessments confirmed that the IRS modernization effort is a massive, highly complex, high-risk program that is confronting a number of critical management and technological challenges. These studies also made it clear that we should not turn back, but rather make a series of changes to strengthen our current program. While all of these studies assessed different components of the program, they clearly suggested consistent improvement opportunities.

Looking beyond the conclusions drawn for the overall program, the outside assessments concluded we need significant improvements in execution to put our most critical projects back on track.

I do not intend to understate to the Committee the seriousness of the current challenges faced by the modernization program or my awareness of the long history and inconsistent record of success on modernization. But I do think it is worth noting that we have achieved some significant accomplishments to date.

### **Delivering Benefits**

First, we have developed a broad strategic plan called the Enterprise Architecture, encompassing both the functional and technological dimensions of the BSM program. We recently won the "Excellence in Enterprise Architecture Leadership" award for this Enterprise Architecture from E-Government.

Second, we established a secure, on-line technical infrastructure to support both new BSM applications as well as other future IRS applications.

Third, we have delivered applications that provide tangible benefits to taxpayers and improve the efficiency and effectiveness of our tax administration system. They include:

- *Customer Communications*, which reduced taxpayer call-waiting time in half, reduced the number of abandoned calls by 50%, and doubled the number of refund inquiries from our Spanish speaking taxpayers.
- *Where's My Refund?/Where's My Advance Child Tax Credit?*, which gives taxpayers instant updates on the status of their tax refunds and advance child tax credits. These applications have received over 40 million requests since the be-

gining of the year. By shifting a significant volume of customer demand to the Internet, we have seen a measurable improvement in service to taxpayers who still choose to call.

- *e-Services*, which includes preparer tax identification number (TIN) applications with instant delivery, individual TIN matching for 3rd party payers, on-line registration for electronic e-Services, and on-line initiation of the electronic originator application (currently released to a controlled segment of external users). I am pleased to announce that we recently made the first part of e-Services available on our public web site. The remaining parts will come out over the next several months.
- *Internet EIN*, which allows small businesses to apply for, and receive, an Employer Identification Number on-line. Since its launch last May, we have processed over 453,000 EIN applications that have come in over the Internet.
- *HR Connect*, which allows IRS users to perform many personnel actions on-line. To date, we have rolled this out to about 73,000 employees, and will complete the rollout by early 2004. This technological advancement will enable the Service to redirect hundreds of positions to enforcement activities by the time it is fully deployed, which we have planned for October 2005.

Now, let me provide a summary of the programmatic reviews, and the current program status, beginning with CADE.

#### **Carnegie Mellon Software Engineering Institute (SEI) Assessment of CADE**

CADE, as most of you already know, is designed to replace the IRS' current Master Files. The Master Files are the Service's central and official repository of taxpayer information. As such, it is a singularly important system to the IRS. The Master Files are drastically over age in the life cycle of technology, having been in place since the 1960s. They are considered reliable but are extremely inflexible and fragile, and therefore difficult to support, in part because of the old technology they use.

We initially planned CADE to be available for the 2002 filing season, but we missed several dates. Following the acknowledgment in August 2003 that we would not meet the latest scheduled release of the first component of the CADE project, I requested that the Carnegie Mellon Software Engineering Institute, or SEI, provide an independent assessment of CADE's history and the feasibility of future plans for CADE.

SEI advised us to stay the course with this first release of CADE, which would handle 1040EZ returns for single filers that were either even balance or which had a refund due. They felt the architecture for this release was sound.

However, they strongly urged us to start paying more attention to two areas. One was to get started on building a version that would utilize the future technology for CADE, which the first release does not. The other was to accelerate plans to better understand the scope of future releases to ensure that our approach was sound for the long term.

We have taken steps to address both of these recommendations and we plan to have SEI come back periodically to check on our progress.

Let me briefly update you on where we are with CADE.

#### **Status Of The CADE Project**

First, we have now passed some critical hurdles with the version of CADE that would have gone into production last summer, such as the system integration test, a pilot, and a system acceptance test. PRIME will address the defects identified during this process in the release currently under development.

Second, we are well along on implementing the changes needed to create the 2004 filing season version of CADE so that we can process actual tax year 2003 returns in 2004. PRIME has developed a detailed plan to be able to develop this "working CADE" by this summer. While that will clearly be too late to process any significant number of tax year 2003 1040EZ returns, it will enable us to launch CADE in a low risk setting and gain valuable operational experience.

Third, we are taking steps to ensure that the future changes needed to deploy CADE for the full 2005 filing season will be tested and ready by January 1, 2005.

Let me also note that the vast majority of the work on the first component of CADE is being conducted under a type of contract which limits the IRS's PRIME cost to their original proposed costs for the first release. Additional costs are, however, being incurred for filing seasons changes that we now need to apply due to the delay.

#### **Other Modernization Assessments**

In addition to the assessment of CADE undertaken by SEI, we commissioned two other outside, independent assessments of various aspects of Modernization. These

studies include the *PRIME Review* assessment, conducted by Bain and Company, and *Assessment of the IRS Office of Procurement*, conducted by Acquisition Solutions, Inc. The purpose of the *PRIME Review* was to identify causes of breakdowns in business processes and the engagement model and to provide recommended solutions. This assessment included identification of specific skill and leadership gaps, an audit of CADE, and finalization of the requirements definition and validation of the Integrated Master Schedule.

While the primary purpose of the *Assessment of the IRS Office of Procurement* was to determine the efficiency and effectiveness of the IRS' Procurement organization, it did provide a brief assessment of the Modernization contracting program.

#### **IRS Responses to Internal and External Assessments**

First let me say that we have accepted the recommendations made by these external reviewers and are moving aggressively to implement them.

I have significantly enhanced the top-level leadership of the modernization effort. I personally meet with the IRS top team every other week to discuss the status of critical project goals and other program improvement initiatives.

I have also expanded my personal interactions with the PRIME Contractor, Computer Sciences Corporation (CSC), by increasing my personal engagement with their top-level executives. I meet monthly with the President/COO of CSC to provide clear direction on performance expectations and accountability.

In addition to strengthening the top team, I have asked John Duder, the Deputy Commissioner for the Wage and Investment Division, to transfer to the modernization program and focus his complete attention to delivering the CADE project. I have also asked Rich Morgante, the Deputy Commissioner for the Tax Exempt and Government Entities Division, to join the modernization program to lead the implementation of the recommendations made by the external reviews.

Now that I have discussed the Modernization program's accomplishments and the improvements underway, let me address the status of our most critical projects.

#### **Status of Other Tax Administration Modernization Projects**

I have discussed CADE at some length because, like the new online infrastructure that we have deployed, it is a key foundational component of the modernized systems. I will only briefly discuss the other four systems that we are developing, two of which address tax administration and two of which address internal financial management.

The two new tax administration systems are e-Services and Modernized e-file.

e-Services provides an array of services aimed at larger third party providers, including electronic return originators and institutions that report 1099's, such as banks and brokerage firms.

The e-Services suite of projects is over a year late and its cost has increased almost 100% over estimates made several years ago. Given that these are the first applications to use major components of the new modernized infrastructure, and given the complexity of linking to our very old current systems, it is not surprising that we did not meet our initial estimates for costs and schedule; however, we must adhere more closely to cost and schedule estimates in the future.

I am very pleased to inform the Subcommittee, therefore, that we now see sunshine at the end of the e-Services tunnel. We have deployed the first parts of a multipart release, including online registration, interactive Taxpayer ID Number Matching, and online Preparer Tax ID Number application, and made them available on irs.gov for several months. In addition, on January 28, 2004, we fully deployed the electronic return originator application on irs.gov. Over the next couple of months, we will deploy additional functions, like electronic account resolution, transcript delivery, and online Disclosure Authorization applications.

Modernized e-file will provide electronic filing for the first time to large corporations and tax exempt organizations.

The Modernized e-file application achieved a very significant milestone last November when we began software certification testing on schedule for dial-up users. This certification is the process by which we validate that vendor software products work properly with our systems. On February 4, 2004, we began certification testing over the Internet.

We had hoped to open Modernized e-file for business at the beginning of January, but our target date has slipped to mid-February. Later releases of Modernized e-file will enable the filing of additional 1120 and 990 schedules. Eventually, this project will replace our almost 20-year old 1040 e-file system.

### **Status of Internal Management Modernization Projects**

The two internal projects we are developing are the new Integrated Financial System (IFS) and the Custodial Accounting Project (CAP), both of which are disappointments at this time.

We are working on internal systems to correct and address a number of financial material weaknesses that reflect internal management deficiencies, such as compliance with current federal accounting standards and the ability to accurately report on tax-related income. While we are very proud to be able to close our books on the completed fiscal year by mid-November, and to have received a clean audit opinion from GAO the last three years, nevertheless, we are operating with deficient internal management systems that urgently need correction. We have tried to balance the work on tax administration systems with the necessary work on internal management projects within the Modernization program, though, as I noted earlier, there is no doubt that we have been trying to do too much overall.

In the case of IFS, we believe that we understand the causes that led us to miss the target production date of October. We initially set a target for IFS that was, in the end, too aggressive, and we did a very poor job of setting expectations and communicating our risk. On January 30th, the CSC executives informed us that their revised target of April 2004 was not achievable. The new target date is October.

This further delay in IFS delivery is a huge disappointment both to the IRS and to me personally. While the PRIME has indicated their willingness to bear the financial burden for this further delay, we feel that the IRS needs to take some stronger steps. Specifically, we will expand the competition for the new enforcement projects that we plan to start later this year and next year. In addition, we will also expand the competition for the next phase of IFS.

CAP is also a complex project. Whereas, for IFS, we are using a standard Commercial-off-the-shelf (COTS) product that we are tailoring to the IRS, CAP is largely custom-developed software tied to the 40-year old Master Files system. Over the past several months, progress has slowed significantly as the CAP project drives through hundreds of millions of records in the Individual Master File.

After intensive analysis of the factors causing the slowdown of progress on CAP, we have taken a number of steps that I believe will get CAP on a more predictable track. We now expect to begin loading the CAP data warehouse in May to ready it for production in August. In addition, we are currently negotiating an agreement to limit the government's financial risk with the CAP contractor, Northrop Grumman Mission Systems, for the first release of CAP.

In order to get a jump on the second release of CAP, we started some design work last April, but we have now decided to significantly delay that project, both to ensure total focus on the first release and to wait until we are certain that the approach to CAP in the first release is what we want to use in the second release.

### **Conclusion**

While we have much work to do on the modernization to meet all of the challenges we currently face, I can assure you that it is one of my top priorities as Commissioner. I also assure you that we have a solid oversight relationship with Treasury, OMB, Congress, and the IRS Oversight Board. We are working closely with these stakeholders to ensure they are well informed of program goals and the status of the projects against schedule and cost targets. All parties involved in modernization are keenly aware that our first goal is to ensure we spend taxpayers' dollars wisely.

The reviews that the PRIME and I commissioned, and the actions we are now taking, reflect our strong commitment to get Modernization "right." The long-term future of the tax system depends so much upon our success. While the progress to date has been decidedly mixed, we need to put in place the foundation upon which the tax system will build and rely for decades to come.

Mr. Chairman, Ranking Member Pomeroy, and distinguished Members of the subcommittee, again let me say that I appreciate your leadership and the continued support of the subcommittee, and would be pleased to answer any questions you may have.

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Chairman HOUGHTON. Would you like to make an opening statement?

Mr. PORTMAN. No thanks.

Chairman HOUGHTON. Okay. Obviously, this is a critical issue, critical for everybody, not just the mechanics of the IRS, and I think it makes a lot of sense having a little competition. Of course, the question is how long will it take for enforcement and other things to get up to speed because of the total package involved.

Let me ask you a question. When you have these contracts, Commissioner, do you have anybody from the IRS working inside the contractor's shop as well as having them working inside your shop to get a feel of timing, meeting deadlines, because when you take a look at the span of years such as we have had with this \$1.7 billion contract, with its terrific overrun, about 17 percent overrun, how did they get so off track?

Mr. EVERSON. There are several points you have in there, Mr. Chairman, and let me take them in order. I agree with you about the point you make about the action we are taking, the steps we took yesterday. I have run businesses and had accounts where you are servicing 100 percent of the supply to the customer. You work as hard as you can to protect that position, but when the day comes that it is opened up and there is a second supplier, it changes everything. In my experience, it usually makes you a better supplier because you are held to two standards, not just your own standard of your relationship with the customer, but you also are being compared constantly against your competition.

This is not a small step. In the \$285 million request that we have pending before the Congress, only \$40 million of it pertains to the enforcement modules that I mentioned. The CSC will still participate in a portion of that because they have the overall integration role, but what we are suggesting is we will look at other contracting vehicles. So, your first point is entirely correct. This is a significant step. What we tried to craft was a balanced approach.

I talked yesterday with Mr. Laphen, who has been terrific to work with through all of this. He understands. He characterized the action that we took as balanced and providing incentives as CSC is able to meet commitments and demonstrate improvements to gain the future work, without taking an overall too harsh step at this time, which would be in nobody's interest given how far we have come. So, that is the first point I would suggest.

You asked about how this program gets off kilter over a period of time and we get to these overruns. I think that I would go back to those three conclusions that the four somewhat overlapping studies indicated, and you are going to hear from one of the groups that helped us on this.

Again, I don't think that the IRS had adequate business unit oversight or ownership of these projects. They were treated as technical projects driven by the technical staffs and by the contractor. That means that our business unit people didn't help set the standards. They weren't in there at an early enough stage working on the testing, making sure that things were happening.

As a result, we got a very cumbersome system where just a simple change request took 30 or 40 weeks to get through. This adds incredible cost because you are circling back and redoing work, and you haven't anticipated up front what you need to do.

So, we are looking at all that. We are tightening it up by having these projects driven out of the business units. As one example, you

are all familiar with our structure that came in through RRA 1998. We have got this Wage and Investment group that is for the bread and butter taxpayer, the 100 million-plus returns that come in each year. Our Deputy Commissioner for that whole operation is now in charge of the Customer Account Data Engine (CADE) project because they are going to be the users. So, CSC and our technical staff work for John Duder, who is the deputy there. That is a big change. That will help us.

Lastly, on the very specific point of co-location, it is something that Mike Laphen and I have talked about. As we started to work together, one of the observations we had was just what you said, that we have got too much independence here. We have talked about having a lot more co-location of our staffs and CSC is doing that, and we are working with them. Mike and I haven't agreed to have a co-located office, but it may come to that, you never know.

Chairman HOUGHTON. Thanks very much. I know with your ability and your background experience, this will work out well. It really, at some point it has to work—

Mr. EVERSON. Yes.

Chairman HOUGHTON. We have had so many approaches here that have fallen short, every time, and the whole system is banking on your success.

Mr. EVERSON. It is, but I do want to reassure you. As you have indicated, I give the IRS a mixed grade here. A lot has been done. I don't want people to tar the whole effort here. As I meet people around the country, they say, boy, some of these things you are doing with the technology are just great. It is largely these internal systems that we just haven't been able to crack the nut on yet.

Chairman HOUGHTON. Thank you very much. Mr. Pomeroy?

Mr. POMEROY. Thank you, Mr. Chairman. Commissioner, I found your testimony very interesting and typical of what our relationship has been, very forthright on your part in identifying problems both with the IRS and with the contractor. I think that it is a lesson that is learned every day in terms of the relationship between consultants and the enterprise, public sector, private sector, wherever. You have to have very focused relationships and you have to have an awful lot of involvement or the thing is going to get away from you. It sounds like it got away from us a bit on especially the main computer project, is that your assessment?

Mr. EVERSON. I think everybody had the best of intentions here, absolutely a real desire to be successful. The very scope and complexity of these projects doesn't give you much of a choice. You either get into it and understand it, or it is almost too much for you.

Mr. POMEROY. Yes.

Mr. EVERSON. What I think happened was the people who needed to understand these projects, meaning the folks that run our operations, were able to take a pass because of the way we structured it.

It would be easy for me to sit here and just trash the contractor. I am not doing that. There was a joint failure to deliver in which the IRS clearly shares. I don't think we were correctly configured and managing our efforts. So, it did get away from us, as you indicated.

Mr. POMEROY. I think that as government looks at a greater role of outsourcing right across the board, this is something we need to keep very much in mind, and you have to have on staff requisite expertise to really know these projects, to be a part of the projects, to oversee the projects. If we are going to slash staff internally and outsource and somehow give the taxpayer a better value, that isn't always going to work, especially if you are unable to sufficiently be involved in monitoring the project.

Mr. EVERSON. I couldn't agree with you more. When you look at business processes, whether they are your own people or they are automated or they are external people or goods or services, you have to treat them all as if they were in your own shop and work very closely together. That is a challenge when you have outside services. That needs to be managed correctly.

Mr. POMEROY. Is there mitigation that the Federal Government should initiate relative to nonperformance or violated contracted performance by the contractors?

Mr. EVERSON. No, I don't think so. I think at this stage, our relationships with the contractor are good. I would suggest to you that the relationships, in fact, are very strong. It is just—

Mr. POMEROY. We get our money back.

Mr. EVERSON. If you can—I would love it if you could get some money back—ask Mr. Cofoni. Maybe he can give you some back. He will be talking later, but I think what CSC has done is indicated they are going to cap this IFS release, which is good news for us, making sure we won't incur additional overruns, as the Chairman indicated. We are going to be working very closely in looking at fixed-price alternatives as we go forward, so—

Mr. POMEROY. I am pleased about that. It just would seem to me within your kind of fiduciary responsibility as manager, someone either within IRS or the U.S. Department of Justice ought to be evaluating whether or not there is a liability issue that ought to come back.

Mr. EVERSON. We monitor the contracts closely and the preponderance of them, up to now, have been a cost-plus basis, so that if you mismanage the process, as we were just chatting, the costs go up.

Mr. POMEROY. Okay. The final thing I would mention is I know that you and I have spoken about taxpayer compliance and how disappointed we have been that some very well established players in the marketplace have been repeddling tax shelters that really are not grounded very well under law and fail any test of ethics, of business ethics. What I am wondering is, as we try to look at adding structural disincentives for any enterprise that might consider this kind of conduct, is there cross-linkage relative to contractual relationships with the IRS? Now let me point my question.

KPMG is a fine, long-established firm, one of the best in the world, but they had a renegade arm that somehow was very involved in peddling tax shelters to prospective clients that they had gone an awful long way, strayed a long way from the path of what they usually do in this activity. I am fairly stunned by it, and I think it is disgraceful. I think that they had a very bad day in the Senate hearing when this information was brought into public light.

Is this the kind of thing where if they have a contractual—if one arm of that massive firm is doing that activity and another arm is doing legitimate contracting activity with the IRS, is that something you might evaluate relative to your continued participation with them as a contract entity in light of their corporate conduct at large?

Mr. EVERSON. I think that is a question that is really probably best addressed to the Office of Management and Budget (OMB) and to the Office of Federal Procurement Policy because of their overall supervision of procurement practices. It is clearly legitimate for the government to hold Federal contractors to higher standards in some instances than would be the case between normal commercial relationships or parties in the private sector, and the government does do that. The government asks for additional information on certain areas—have there have been Equal Employment Opportunity complaints, just as an example. There are considerations that enter into procurement decisions as they are taken.

So, without getting into the real merits of what you are asking, which would obviously have to be fact-based considerations and couldn't rely on simply a hearing, no matter how compelling, you would have to have had some action that would have taken place administratively or in the courts before you would consider an action. The OMB does occasionally say, as it did with some of the big corporations that got into problems, like Arthur Anderson and others, that they are disbarred from participating in Federal contracts. So, that is looked at, but I would suggest to you it is more an OMB action.

Mr. POMEROY. I think that answer—I know I am done, but I just have a summary point, Mr. Chairman. Your answer is a little too circumspect for me. In other words, I think that the——

Mr. EVERSON. I thought you might react that way.

[Laughter.]

Mr. POMEROY. I think you have a role here. I am aware of a memorandum within this concern that assessed the potential profit from marketing these activities against the potential downside in terms of the structural fines, and they said even if we are fined, it is still a net plus for us. Well, we need to build in marketplace disincentives for those that don't respond on businesses' sheer honesty and honesty being the best policy. If they want to engage in this kind of conduct, we need to make certain that there is a business consequence that produces a net loss.

Mr. EVERSON. Yes.

Mr. POMEROY. So, beyond the fine, I would like these concerns to understand that their ability to do business with the Federal Government, the Federal Government that on the one hand they are ripping off, is forever placed—not forever, but for a period of time placed in great jeopardy.

Mr. EVERSON. Mm-hmm.

Mr. POMEROY. One aspect of their operation that is ripping off the government may jeopardize the full scope of business——

Mr. EVERSON. Right.

Mr. POMEROY. They may otherwise do with the government.

Mr. EVERSON. Let me put a finer point on it. Our job, first and foremost, is to address the substance of the problems. If we feel



that a professional services firm is violating promoter regulations or statutes, we have to address that, and we are addressing that in this area of abusive shelters. We have a very active set of programs, and where there has been misconduct, I believe that there will be consequences, and that is how I would leave it.

Mr. POMEROY. Thank you. Thank you, Mr. Chairman.

Chairman HOUGHTON. Mr. Commissioner, you know that this is a very bipartisan Committee. We walk in lockstep on many of these issues. We try not to be partisan. I am sitting between two of the finest Representatives we have in Congress, and I am really honored when I say this. I would like to then see if you can come up to this standard, to introduce Mr. Portman.

[Laughter.]

Mr. PORTMAN. I was looking to my right when he said that to see who he was talking about.

[Laughter.]

Thank you, Mr. Chairman, and thanks for your willingness to have this hearing and your continued oversight of the IRS. It is not something that Congress has done terribly well over the years, and I think with Mr. Houghton coming on the Subcommittee on Oversight, we have done a much better job of keeping track of what is going on and hopefully being a constructive partner. So, I thank you and your staff for continuing to do that.

Here we are again. If you think about it, back in the mid-1990s, the reason the Restructuring and Reform Commission was started was not so much about all the things we ended up recommending to do with management and policy as it was about modernization, because it really came out of the frustration felt by the Appropriations Committees over appropriating more and more money toward a modernization program at that time which was alleged to have spent \$3 billion. It was to little or no benefit to the taxpayer or to the government.

We are not at that level yet, but I look at the GAO recommendations and its analysis, and we are going to hear from them in a moment, and we are beginning to get to the point where we are talking about hundreds of millions. This is a constant frustration. I know it is very complicated. The GAO says there are \$290 million of cost overruns, a cumulative of 83.5 months of delay in major BSM projects.

So, here we are again, and Commissioner, you are relatively new to this and therefore you have the ability both to look at it in a more objective manner, I believe, and also to be able to shake things up a little. It sounds like you are doing that. I think the recommendation of having the business units take direct leadership and ownership of the modernization projects is certainly a step in the right direction. My question is, is this more a management issue at the IRS or a contractor issue, and you have answered that earlier by saying you think it is both.

With regard to the IRS problem, which is where this Committee has taken a big interest in the past in literally trying to restructure the IRS, and we have gone through that over the past few years and there has been a lot of disruption at the IRS in that process, has that disruption caused some of these problems? In other words, by changing our structure to focus in the three areas by literally

creating new positions—now you have two deputies, for instance—has that been part of the problem, that over this time period, the last 5 years, the IRS itself has been in somewhat of turmoil because of the changes. If that is part of the problem, what should we be doing about it?

Mr. EVERSON. I think that the reforms that you took, creating business units, were sound. I think that remains the core of what you did in RRA 1998. I think that was a good reform.

I do believe that what I did last June when I came in, which is to consolidate the staff functions under one deputy, was an important follow-on step to that because it was important that they cooperate and support each other. As I have said to many, in the private sector, the staff functions all work together because they don't have the same juice that the manufacturing guys or the marketing people do who deliver the bottom line. In government, they are all fractured and they are impotent, so that things like common sense controls or good technology or good human resource practices are lost against the program managers who are running the businesses.

By pulling them together and bringing them under the leadership of our Senior Operations Manager, the man who was running the Wage and Investment Division, the perspective is that they are accountable to the operators now, which was not what the going model was.

I don't think that the changes through the reorganization have contributed to this problem. In fact, I think that Charles Rossotti and the people in the IRS did a spectacular job of standing up the new organizations, and I admire everybody for the tremendous job they did, how relatively pain-free, from my perspective, that was accomplished, and the great improvements in service, with which you are familiar, that took place at the same time. A lot of times, you get a lag effect where service hasn't gotten better because you are consumed in the reorganization.

The IRS did both. It reorganized and——

Mr. PORTMAN. Improved service.

Mr. EVERSON. It improved service. That is a phenomenal accomplishment. Now, as you know, we did it at the expense of enforcement. We are redirecting resources to that, and we are working on it, but now we are also bringing in closer these support functions. One of my obligations, I have talked to all three of you about it, is to make sure we run the organization efficiently and economically, and we are doing that as we restructure elements of the work force, and this technology is a piece of it.

No, I don't think that there has been anything out of sequence here. I think it is a good sequence, and it is working.

Mr. PORTMAN. To what do you attribute the management failure of this? Now, I am getting to the contractor issue in a moment, but in the Restructuring and Reform Commission, we actually found, as I recall, that the IRS was not contracting too much, and I understand Mr. Pomeroy's point of view on the outsourcing and the contracting concerns and the oversight concerns. Our concern, as I recall, was more based on analysis that the IRS was trying to do too much in-house. For example, there were some programs that

were literally off-the-shelf programs that could have been used and instead the IRS insisted on recreating the wheel.

We also found that the management structure, the culture of the management was risk averse. We found that there was kind of a consensus-oriented management structure and a style that diffused leadership and decision making and didn't take responsibility or accountability, and through that, people down the line were able to stop progress in its tracks and yet have no accountability for that.

Part of what we have tried to do these last 5 years in Congress, as you know, is to improve on that, but my question to you is, are those problems still there? Is it the stovepipe problem, which is clearly a problem—literally a problem in terms of your computer system? It still is, and that is part of what we are trying to overcome with the modernization program, but there was also this stovepipe sense of—

Mr. EVERSON. Right.

Mr. PORTMAN. Having the various units from audit to collection to information not working together toward modernization. How would you analyze what your management problems are in terms of the failures to achieve the goals, forgetting again the contractor side of it—

Mr. EVERSON. Yes.

Mr. PORTMAN. What would you suggest to address those, or have you already addressed them?

Mr. EVERSON. Let me center my response on these cultural observations that you have made, which I think are correct and I think, in fact, were perpetuated by the way we have managed these projects. We have attempted to achieve consensus in the management of these projects and I don't think that is a sensible way to approach this. It is important to achieve buy-in. It is not best practice to achieve consensus when you are making difficult decisions like these—the tenets of creating these vast systems—because that does give everybody the right to circle back and have yet one more change, and the process runs 30 or 50 weeks when it should run 5 or 10, and that is what happened here.

I was rather shocked, and as you know, when I got to the IRS and we had something like 40 different committees, and there was one committee on the modernization and I saw the minutes of it and it had 40 people attending the meeting. You don't get something done with 40 people trying to discuss a computer system. That is not correct, because what you do in that model, in my view, is you dumb it down. The guy from GAO says, "Well, we really shouldn't do that." The person from OMB says, "Well, we can't do that." The person from the U.S. Department of the Treasury says, "We shouldn't do that." The person from the operating unit says, "We can't do that."

Before you know it, you have taken a lot of the meat out of what you need to do. This is all about making tough decisions, and standardization, just as you indicated—buying things that get the job done at a reasonable cost but may not be the Cadillac, when they are available on the outside, and not insisting that it needs to be customized and taking forever to get it done.

So, I do think we had a culture that was, as you indicated, risk averse. I remember when Todd Grams, who moved over to be the

Chief Information Officer, he was our Chief Financial Officer. He came and briefed me when I was still at OMB and said there are no consequences for failure. I would actually suggest to you that the action we took yesterday is the first time in the course of this most recent program that there has been a consequence, a real consequence. So, we are trying to change those cultures and those behaviors.

Mr. PORTMAN. Again, we are going to hear later from the contractor and also from the Oversight Board—I see Larry Levitan is here—and from your consultant. I guess my only thought is from the experience we had going back to the mid-1990s is that changes in the IRS side, forgetting the contractor for a moment, seem to me to be critical if we are going to make these targets going forward. I hope you will continue to focus on that. I think your announcement this morning of the actions you took yesterday is a very positive step and the competition is important, but we also need to focus on the accountability, as you talked about, and the buy-in and not the consensus.

Mr. EVERSON. Absolutely.

Mr. PORTMAN. Thank you, Mr. Commissioner. Thank you, Mr. Chairman.

Chairman HOUGHTON. Thank you. We have been joined by Mr. Weller, and we are going to pass him at the moment because he doesn't have a particular question, but Mr. Pomeroy has got one. If you think of anything later on, please chime in.

Mr. POMEROY. Thank you, Mr. Chairman. Lately, we have seen an awful lot of what we would have believed to be service work of a technical nature performed in this country moved to India or other places, and I am wondering if one of the things you monitor in the performance of the contract is whether or not the work on the IRS is being done within this country.

Mr. EVERSON. I haven't thought of that issue, and I will have to ask that question, frankly. I don't know whether CSC or any of the subcontractors that participate with us are doing anything overseas. I just don't know the answer to that, and we will find that out.

Mr. POMEROY. I will ask them, as well, but obviously there are sensitivities about having our tax system performed on with work by contractors out of the country. We would certainly want to have this type of project performed in this country, and so I would put that on your list of things to keep an eye on. Thank you, Mr. Chairman.

Chairman HOUGHTON. Mr. Portman, have you got any other questions?

Mr. PORTMAN. No.

Chairman HOUGHTON. Have you got one?

Mr. WELLER. Mr. Chairman?

Chairman HOUGHTON. Yes, please.

Mr. WELLER. Commissioner, thank you for joining us this morning. I would echo my friend, Mr. Pomeroy's, concerns. I think that is a legitimate question that all taxpayers would have if contractors were to send offshore the work. That would be a great concern to both parties, and I certainly want to echo the question that he asked.

[Additional information submitted by Mr. Weller follows:]

Washington, DC 20515  
*February 25, 2004*

The Honorable Mark Everson  
Commissioner  
Internal Revenue Service  
1111 Constitution Avenue, NW  
Washington, DC 20224

Dear Mr. Commissioner:

I am writing you today regarding the Administrations' competitive sourcing initiative and the potentially damaging impact it may have on my district.

As part of the initiative, the Internal Revenue Service's Central Area Distribution Center in Bloomington is subject to bidding by public and private contractors. After contacting your Congressional Affairs staff, I learned that a decision will be made on approximately Wednesday, April 14, 2004. With over 500 jobs at stake, this is a disturbing, potentially damaging development.

I support the Administrations goal of bringing more efficient, lower-cost government to the American people. However, with this many jobs at stake in an area that has been hard hit by the downturn in employment of the last few years, these jobs will not likely be replaced.

The deciding factor the IRS is using to determine how best to administer the Distribution Centers is cost-effectiveness. To that end, I offer this resolution. Regardless of whether the Federal Government or a contractor receives the right to manage the IRS Distribution Centers, I believe the most effective option would be to consolidate operations by closing the two facilities in Rancho Cordova, CA and Richmond, VA and move those facilities duties to the Bloomington location. By closing the two facilities on the coast, you would reduce the overall number of employees necessary to operate all three facilities, with the added advantage of having a Distribution Center centrally located within the Nation, allowing for equal service ability nation-wide.

Thank you for your assistance on this issue. I look forward to working with you on finding a positive resolution to this difficult situation.

Sincerely,

Jerry Weller  
*Member of Congress*

Washington, DC 20515  
*March 5, 2004*

The Honorable Mark Everson  
Commissioner  
Internal Revenue Service  
1111 Constitution Avenue, N.W.  
Washington, DC 20224

Dear Mr. Commissioner:

My letter serves to update you on my findings after visiting the IRS service center in Bloomington, Illinois, and to seek your assistance for the center's employees. I am disturbed and disappointed to learn that employees have been told that employees must make decisions on buyouts before the future of the center has been decided.

It was brought to my attention that the employees at this facility were given a letter and a form on February 29, 2004 for a buyout package to return no later than March 20, 2004. While this option was taken advantage of by several employees who found it an attractive time to leave, there are many more who would rather remain employed at the facility, and would prefer to wait until the announcement has been made on what will happen to their jobs.

As the deadline to apply for buyout occurs approximately one month prior to the announcement regarding the fate of this facility and the people who work there, I ask you to extend the deadline to apply for buyout, or offer another buyout opportunity after the IRS makes it's announcement. This will allow employees who have submitted buyout applications under some duress to rescind them, and reapply later

should they ultimately decide they would like to be bought out. Additionally, for employees who prefer to wait, but are feeling pressured to make a decision, this will give them some time and peace of mind to make a more fully informed choice.

I hope you will agree with me that this is a fundamental issue of fairness. Please extend the deadline to submit an application for buyout, or offer another opportunity for buyout after the IRS announces its decision whether to keep the facility open.

I look forward to working with you to modernize and streamline the IRS while ensuring its employees are treated fairly.

Sincerely,

Jerry Weller  
*Member of Congress*

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I think probably the most basic question, which I believe just from reviewing what has been discussed this morning, is when will the taxpayers begin to see the benefits? When will the taxpayers begin to see the results of the computer systems modernization? I know in the 9 years that I have served in the Congress, we have been talking about this. When are we actually going to see the results of the massive investment that taxpayers have made in modernizing the computer systems for the IRS?

Mr. EVERSON. I think that it is fair to say that you are already seeing the results in many, many dimensions. As I was indicating before you came in, we have been successful, and the contractor has been successful, in a suite of applications that help the taxpayer directly and that help practitioners. So, these projects, like e-services, giving Employment Identification Numbers, providing transcripts of key data, and the history of an account to a practitioner, all those things are happening. We have been successful doing that.

You can see the results in enhanced rate of electronic filing. If you look at things like the downloading of forms and regulations that are occurring now, it is almost up to a billion a year. Think about the savings you are getting there because you don't have to call to ask someone for a form and then the form goes to one of our distribution centers and gets mailed to you. You can just pull it off online. There is a lot of progress.

The problem we have had here, though, is on these major systems, the updating of the master file and also the infrastructure we will start to use. Our expectation is that this the first module of the CADE project, which is the master file updating, will actually be working this summer for a subsection of 1040EZ filers, several million people. Now, it will be a while before you get the follow on modules that increasingly pick up other taxpayers. So, this remains, as to the big projects, the master file update, a multi-year effort, and that will take a lot of time.

Mr. WELLER. I believe that we have invested about \$8 billion so far in modernization. That is the estimated cost of the overall modernization. Is that figure accurate?

Mr. EVERSON. I presume that in that figure you are going back to what Mr. Portman was talking about. If you look at the entire life cycle over—

Mr. WELLER. Right.

Mr. EVERSON. Back into the early 1990s, a lot of that had no benefit whatsoever.

Mr. WELLER. Yes. Now, you have stated the benefits that you have been able to identify that taxpayers are now currently receiving. If we were to compare that to a private sector, say, a credit card institution or bank or insurance company, how today would you rate the level of service as a result of the modernization compared to what a customer would receive from their bank or financial institution?

Mr. EVERSON. I think it is improving. I don't think we could say that it is quite yet at the level that I would consider best practice. A good example would be our telephone routing and technology. We have got this large center down in Atlanta that routes telephone calls so that if you have got a question about charitable contributions, it goes to the right person in one of our two dozen or so call centers, and to an individual who knows about that subject, and it is also sequenced correctly so that you don't have to wait too long because of a busy signal.

I was in a local shop in Arlington just a week ago and a fellow who does picture framing for me said, "You know, I used to call the IRS and I used to have to always call on my lunch hour because I knew it would take me the full hour to do the business. Now when I call, I get right through," he said, "and unfortunately, at the end of the conversation I have usually concluded that you are right and I am wrong."

[Laughter.]

So, I think things are getting better. I wouldn't tell you we are best practice yet, though, but we are going to continue to work on it.

Mr. WELLER. Just in follow-up and my last question here, we always establish benchmarks—

Mr. EVERSON. Yes.

Mr. WELLER. That we measure improvement and measure performance. As we look at the coming year, this fiscal year that we are currently in, the 2004 fiscal year, between now and the end of this year, what benchmark do you believe that we in Congress should use to measure the progress as you continue to implement and move through the modernization process to demonstrate the benefits that we will be able to measure progress?

Mr. EVERSON. In terms of the modernization program itself, I think that you need to look at a variety of indicators. Some of them are volumes, as I indicated, the percentage of electronic filing, or others are more qualitative, like level of service. We track level of service, which is a concept that does get to this issue of benchmarking against comparable kinds of activities where someone is dealing with a reservation system, those kinds of issues. So, we have a variety of indicators that we track that are summarized, to which we hold ourselves accountable.

The problem that you have got here, that we are really talking about this morning, is hitting delivery dates, and as the Chairman indicated, controlling costs. I would suggest to you that in many instances, when we finally get some of these things online, we are getting the functionality that we have sought.

Mr. WELLER. Thank you. Thank you, Mr. Chairman.

Chairman HOUGHTON. Mr. Portman?

Mr. PORTMAN. Mr. Chairman, thank you. Just one quick follow-up. It seems to me one of the ways to follow on Mr. Weller's question, and I appreciate his backing up and saying, what is this all about for the taxpayers, because I think that we have made some progress. We need to acknowledge that, and now we need to get into the underpinnings and the CADE is the obvious example there.

Mr. EVERSON. Yes.

Mr. PORTMAN. Our CADE is one of the programs that you have talked a lot about since coming on last summer, and I think we all acknowledge the importance of getting that up and going.

In your testimony, written testimony, you mention that as a milestone. The other one would be the IFS project. Those two seem to me ones where you believe that we are close to achieving at least significant progress, and by that, I mean within the next year. Are those milestones we should hold you and the IRS accountable for? Are those programs which, instead of talking about the overall BSM, can we talk about those two as projects that within the calendar year 2004 we expect to make significant progress on?

Mr. EVERSON. I think that is entirely correct. Let me say on the financial system, this is what gave rise to the action we took yesterday. We had expected to deliver the first big block of that in April. That was a date that had rolled over from the beginning of this fiscal year, that is to say October 1st, and that is now going to be delayed until the end of this fiscal year.

I still believe that there is no reason why that shouldn't happen. This is just a SAP financial system. The SAP financial systems have been put in complicated corporations across the world for a decade or more, so we ought to be able to do this.

What is difficult in that, and also in the first big piece about CADE, is the linkage back into the legacy systems. The IRS did a lousy job documenting all the systems changes that it made over the many decades. Because nothing was really brought current in terms of new investments over those periods of time, every time you try to patch back to your human resources system or your procurement system, if you are talking about the financial piece, or if you try to go back into the code on CADE to see what changes were made when the code was revised in 1986 or in the next year or the next year after that, this has been one huge stumbling block that affects both projects. I am sure your subsequent panelist, Mr. Cofoni, will address that. It has been a really difficult area, in large part because the code was never—this is the software code—was never properly documented.

So, that is one issue, and I think that is being addressed, and there has been success in testing on the balance and control, which was a big issue associated with CADE, and the contractor and the IRS now feel better about this first module, which is the 1040EZ, coming through.

The trick will probably not be, I would suggest, achieving this first piece, which will only be a narrow strip of taxpayers. It will be the follow on work where there is something called the business rules engine that will help you chart a future path to be able to adjust to all the changes that you gentlemen make to the Tax Code



and to keep this a flexible tool. Setting that up is critical, and you will hear about that from one of your later witnesses. That is a whole second area that I would say is very significant, about which we are concerned. We think we have a good approach here, but we are going to need to very much follow that.

So, the answer is yes, I think both of those deliveries, the first piece of CADE and IFS, will happen. We are accountable for that. We are accountable with the contractor. If neither of those happen, we will take further actions on this that would be even more draconian than what was taken today.

Mr. PORTMAN. Thank you. Given what has happened, again, not just in the last few years but looking back over the last decade, it would seem to me that would make sense, Mr. Chairman, for us to focus on a couple of these deliverables, including that first module in CADE, within this calendar year and even before we go into recess, because it sounds like that is about where the fiscal year ends.

You have a lot of support in this Subcommittee, as you have seen this morning, on both sides of the aisle, and it is support that is cautiously optimistic, that with your leadership, we can get this done. We need some deliverables, and we are glad that you have rolled up your sleeves and jumped into this with such intensity. We expect and hope you will continue that. Thank you, Mr. Chairman.

Mr. EVERSON. Thank you.

Chairman HOUGHTON. Help me here. Boil this down. Computer systems modernization has got two phases, one, the specific things you are trying to do now such as the master files update, and then also the quality and the service and the documentation and the code changes. What specifically do you want to get done this year? Just restate that.

Mr. EVERSON. I think, as your colleague, Mr. Portman, just indicated, the two things that I am really looking to do are the same two things that I was looking to do when I was at my confirmation hearing in March 2003. They are, unfortunately, a year later now. They are the first big block on the financial system, IFS, because there will be some follow on work in subsequent periods for that and this first piece of CADE, the 1040EZ filers, that will prove the concept of the new CADE and the linkage back into the legacy systems. Those two are the big ticket items.

Chairman HOUGHTON. So, that is what we can look forward to quizzing you on next year?

Mr. EVERSON. That is correct.

[Laughter.]

I hope it is not quizzing. I hope that we are all saying, well, good, we have turned some corners here, and that with the changes you have made and with the improved performance by the contractor that we have seen some real deliverables.

Chairman HOUGHTON. Okay. I have just got one other question. The press reports today indicate that the GAO has found that 27,000 defense contractors owe about \$3 billion in back taxes. Have you got any comments on that?

Mr. EVERSON. In fact, I am heading right over to testify before Senators Coleman and Levin on just this issue in just a minute. What has been indicated here is that the IRS and the U.S. Depart-

ment of Defense haven't adequately followed up on potentially leviable debts that contractors to the government have. They haven't paid their taxes but they are still doing business with the Department of Defense.

The President's budget request, which will provide over 1,000 new people in collections officers, will help. We are looking at this issue. I am going to be testifying to the fact that we are going to make some short-term procedural changes. They are already underway.

There are statutory concerns here because what you have is two competing public policy interests. The first is the protection of taxpayer rights, which there are many procedural protections written into the law, some through RRA 1998. There are also privacy concerns. On the other hand, there is a legitimate expectation that if you are doing business with the government, you should pay what you owe. Those two intersect, and they don't intersect in a positive way. So, there may be some statutory changes at which the Congress needs to look.

Beyond that, I would say we are very anxious to help our collection efforts. As you know, in the budget we are asking for the ability to take a strip, just a small strip, of the moneys due and have private collection agencies help us do that, but, as you have heard me testify before, with full taxpayer rights. So, I am hopeful we can make some progress in this area, Mr. Chairman.

Chairman HOUGHTON. Mr. Commissioner, thank you very much for being here. We appreciate it. Good luck in your further testimony.

Mr. EVERSON. Thank you, gentlemen.

[Additional questions submitted by Chairman Houghton to Mr. Everson, and his responses follow:]

**Question: Many state tax agencies have completed successful modernization programs while the IRS has faced cost overruns and delays. On the subject of IRS reorganization of its management team relating to computer modernization, what are the plans to add people and/or contracts that have been part of a prior successful tax modernization project?**

Answer: The IRS Business Systems Modernization (BSM) program is as complex and challenging as any information technology program in the world. When nominated in January 2003, I made it one of my top priorities to evaluate the BSM program. I spoke with IRS senior executives and other federal government officials as well as outside business leaders and executives to learn about the BSM initiative.

Realizing that the modernization program will only be successful if the most senior and experienced IRS executives take ownership of the program, I immediately identified the need to strengthen the BSM executive management team. I appointed John Dalrymple, a 30-year veteran of the IRS who has spent his career focusing on frontline taxpayer issues, to become the Deputy Commissioner for Operations Support. I also appointed the IRS CFO, Todd Grams, to the CIO position to bring better financial and management discipline to the technology modernization program.

I expected the IRS would achieve key milestones in the summer and fall of 2003 by delivering the initial release of the Customer Account Data Engine (CADE) program in August and the Integrated Financial System (IFS) in October. By late summer, it became painfully clear that CADE and IFS would experience substantial cost overruns and delays. With these two major project setbacks, it was evident that significant problems still existed with the BSM program.

Even before these further delays became clear, the PRIME contractor, CSC, and I commissioned three external independent studies to assess the health of the modernization program and to review specific projects such as the CADE program. Bain and Co., Carnegie Mellon Software Engineering Institute (SEI), and GartnerGroup conducted these comprehensive assessments during the summer of 2003.

The IRS developed a 46-item action plan based on feedback from these external reviews. The IRS added two more items after reviewing recommendations the IRS

Oversight Board submitted, bringing the total to 48 action items. These recommendations revolved around strengthening the BSM executive management team and clearly defining the roles and responsibilities between the IRS and the PRIME. As a result, I re-assigned experienced IRS business leaders to the modernization program. I asked Rich Morgante, the Deputy Commissioner for the Tax Exempt and Government Entities Division, to join the modernization executive management team to oversee the implementation of the recommended action items. I also asked John Duder, the Deputy Commissioner, Wage and Investment Division, to focus on delivering the CADE project.

The IRS also retained a leading executive search firm to conduct searches for five key executive positions in the modernization program. One of these searches is in final negotiations. These external searches will provide the IRS with candidates who have a wide-range of diverse experience in systems modernization.

The SEI will also periodically review the CADE program, and we are hiring a third party firm to regularly assess the overall health of the BSM program. Furthermore, I decided to direct the new enforcement projects scheduled for later this year and early next year to other contracts.

All of these measures—combined with the fact that world-class firms like IBM, SAP, BearingPoint, Unisys, and Northrop Grumman are also engaged in the BSM program—should help us gain better control over future cost overruns and project delays.

**Question: I am concerned about taxpayer compliance and debt collection. Most financial services companies and state tax agencies have implemented modern compliance systems to ensure delinquent debts are collected. You have placed an increased emphasis on enforcement and proposed a new Filing & Payment Compliance (F&PC) initiative that would bring in billions of dollars of additional revenue each year. What is currently being done to ensure that this project will move forward, while the Business Systems Modernization initiative is being reexamined?**

Answer: The BSM initiative is a key part of our broader agenda at the IRS. Our focus is *service + enforcement = compliance*. While the IRS is continually improving service to make it easier for taxpayers to understand and comply with the tax laws, it is simultaneously boosting its enforcement initiatives.

Seeing as billions and billions of dollars are lost in tax revenue each year, President Bush's FY 2005 budget submission requests an additional \$300 million over the FY 2004 consolidated appropriations level for enforcement activities. The IRS has begun to address this tax gap crisis by shifting badly needed resources and hiring more frontline enforcement personnel, who will focus primarily on noncompliance among high income individuals and businesses.

The Filing & Payment Compliance (F&PC) project is funded to start in FY 2005. The first steps in implementing the new F&PC series of projects—which we often call Collection Contract Support—involve using private collection agencies. It will provide support to enable private collection agencies to supplement the IRS's internal collection staff; however, using private collection agencies to resolve delinquent taxpayer cases requires enabling legislation (for which I ask your support).

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Chairman HOUGHTON. We are now going to have a panel consisting of Larry Levitan, who is a Member of the IRS Oversight Board; Steve Palmquist, Chief Engineer for Civil and Intelligence Agencies at Carnegie Mellon University in Arlington; Robert Dacey, Director of the Accounting and Information Management Division of the GAO; and Paul Cofoni, President of the Federal Sector and Corporate Vice President of CSC.

Larry, good to see you again, and would you commence with your testimony.

**STATEMENT OF THE HONORABLE LARRY LEVITAN, MEMBER,  
INTERNAL REVENUE SERVICE OVERSIGHT BOARD**

Mr. LEVITAN. Good morning. Mr. Chairman, Members of the Subcommittee, my message today is somber, so I will dispense with any formalities and get right to my testimony.

During this past summer, the modernization program fell into a ditch, experiencing significant delays and budget overruns in virtually all of the projects underway. Although we are convinced that the overall modernization plan is sound and well designed, the challenge is executing that plan.

Unfortunately, this is not the first ditch that the modernization program has fallen into. Since its inception 5 years ago, it has had, with few exceptions, a consistent track record of missed target dates and budget estimates. All seven major application projects the IRS has undertaken are both significantly over cost and behind schedule.

Without making excuses, the modernization program is extremely large and complex with numerous risks. Programs of this scale, and there are very few, are never completed without some level of cost and schedule overruns. It is also important to recognize that the modernization program has had a number of important successes as described by the Commissioner.

It should also be realized that Commissioner Everson and his executive teams are new to their responsibilities and to direction of the modernization program. As soon as the overruns described previously this summer became apparent, the Commissioner started a comprehensive review of modernization and has now initiated an aggressive program to address the problems.

The Board has been impressed with the speed, thoroughness, and openness of this effort. The program of improvement identified by this effort has been started, and we believe that meaningful progress is being made.

The problems experienced by the modernization program will not be solved easily or, in many cases, quickly. However, they can be solved. In its recently released report on the program, the Board makes nine specific recommendations.

Number one, business unit management must take direct leadership and ownership of the modernization program, and in particular this must include defining the scope of each project, preparing realistic and attainable business cases, and controlling scope changes.

Number two, create an environment of trust, confidence, and teamwork between the business units, the BSM and Information Technology Services organizations, and the PRIME.

Number three, enhance the systems development life cycle methodology to support more accurate estimating of future work phases and put into place the necessary processes to ensure that the methodology is followed religiously.

Number four, enhance the contracting process.

Number five, significantly strengthen the experience and capabilities of the IRS's BSM team. The capabilities of this team must be consistent with the scale and complexity of the modernization program.

Number six, rationalize the oversight of the program to eliminate duplication and streamline the process.

Number seven, the CADE project requires special attention. The CADE is the foundation of modernization. It is also by far the most costly, complex, largest, and longest running project within mod-

ernization. Additional work is necessary to ensure that the development approach selected for this system will work effectively.

Number eight, reduce the number of projects being conducted concurrently. Modernization currently has five major projects underway. As demonstrated by the program's performance, neither the IRS nor the PRIME has the capability to manage and conduct this many projects at the same time. It is the Board's view that as current work phases are completed, the number of projects should be reduced. As both the IRS and PRIME demonstrate they can strengthen their capabilities and improve their performance, the portfolio of concurrent projects can be increased.

Number nine, the IRS Oversight Board has lost confidence in the leadership of the PRIME contracting team. This conclusion has been reached after observing performance and results for over 3 years. There have been numerous commitments to enhance the capabilities of this team, improve its management processes, and deliver greater thought and management leadership. Overall results have not changed, however. Target dates and budgets are consistently missed.

In fact, Mr. Chairman, just last week, the IRS was informed that the target date for IFS would have to be changed once again. In our view, this was the final straw. The Board now strongly recommends that the IRS consider all options for strengthening the capabilities of the PRIME contracting team. The time for strong, aggressive action is now.

Mr. Chairman, our judgments may be harsh but are made because of our firm belief that the modernization program cannot be allowed to fail. The risk to the country is unacceptable. The IRS cannot continue to operate with the outmoded and inefficient systems and processes it uses today. Over time, the existing systems will become impossible to maintain, and at that point, the ability to administer our country's tax system is at risk.

We are convinced that the overall plan is sound and well designed. The challenge is executing that plan. Meaningful recommendations have been made by each of the groups involved in this recent reassessment. The Commissioner and his management team are committed to the improvement program and the IRS Oversight Board supports that plan and will continue to work with the IRS on this important effort.

[The prepared statement of Mr. Levitan follows:]

**Statement of the Honorable Larry Levitan, Member, Internal Revenue  
Service Oversight Board**

**Introduction and Summary**

Mr. Chairman, and members of the Subcommittee, thank you for holding this hearing and inviting me to testify. It is an honor for me to appear before your committee today on behalf of the IRS Oversight Board. My remarks today will be directed at the IRS' efforts to modernize its computer systems.

The long-term health and viability of the nation's tax administration system rest upon the success of the IRS Business Systems Modernization program (BSM or Modernization). However, during this past summer, the BSM program suffered a serious setback. Virtually all of its ongoing projects experienced significant delays and budget overruns.

Particularly troubling were continuing and unresolved problems with the Customer Account Data Engine (CADE)—the so-called "crown jewel" of Modernization—that will move taxpayers from the current antiquated tape-based system to a modern reliable data base.

To his credit, IRS Commissioner Mark W. Everson quickly called for a number of separate independent reviews of not only CADE, but the entire BSM portfolio of projects. While the assessments' results are still preliminary, they make it clear that the IRS and its Prime contractor cannot continue to operate in a business-as-usual manner. The IRS Oversight Board believes that the stakes are too high and BSM's problems are too severe to be addressed with half-measures. They must be squarely addressed in rigorous and open fashion, and as soon as possible.

Based on the findings and recommendations of the BSM reviews, Commissioner Everson recently launched an aggressive "action plan" to remedy the problems plaguing Modernization. Through this report, the Board makes nine specific recommendations for turning around the critical BSM program.

They include having the IRS business units take greater leadership and ownership of BSM projects, enhancing the contracting processes, improving overall program management and focus, and reducing the number of BSM projects underway at the same time.

Of great significance, the Board also strongly recommends that the Prime's performance be closely monitored and, if significant improvements are not quickly demonstrated, a change should be made.

On balance, the IRS Oversight Board is convinced that the overall Modernization plan is sound and well-designed. No one believes that the IRS should start over from scratch; a firm foundation and architecture are in place. However, the challenge for the IRS and the Prime remains how to execute that plan and successfully implement the new systems and processes on schedule and within budget.

#### **A Troubled History**

The BSM program is crucial to delivering better service to taxpayers and increasing the Agency's efficiency and productivity. Over the past few years, some notable BSM projects and benefits were delivered. Indeed, tangible improvements in call routing, e-Filing and interactive services produced enhanced service for taxpayers and more efficient operations at the IRS.

However, last summer, the BSM program appeared at the point of unraveling. Virtually all of the projects with a major impact on improving customer service and IRS' internal operations and productivity were experiencing serious delays and cost overruns.

- The Customer Account Data Engine (CADE), which will replace the IRS Master Files with a modern database management system and provide the foundation for other modernized applications, missed its Release 1 August "go-live" date. As of this report's publication, a new target date was not finalized.
- Very little work was done to confirm that the "business rules engine," on which future CADE releases depend, will be able to handle the complexity and scale of the CADE data base.
- The October "go-live" target date for the Integrated Financial System (IFS), which will eventually replace IRS' old core financial systems, was missed. Release 1 was rescheduled for the spring of 2004 and work on Release 2 was deferred. Costs increased proportionately.
- Modernized e-File, the platform for all internet tax return forms, was also delayed, increasing project cost.
- The Custodial Accounting Project (CAP) project, which will provide the IRS with critical control and reporting capabilities, was also running significantly behind schedule and over budget.
- E-Services, which provides a suite of web-based products to third-party users, is basically on schedule, but significantly over budget.

Unfortunately, this was not the first time Modernization found itself in serious trouble. Cost overruns have become an all-too familiar story. Since its inception, BSM had, with few exceptions, a consistent track record of missed target dates and budget estimates. For example, the CADE project is now over two years behind schedule and has been re-scheduled four times. The only reason it is only \$30 million over the original cost estimate is that the IRS converted CADE to a fixed-price contract shortly after the project first started to experience problems.

CADE is not the only BSM project that has a track record of failure. This is a shared BSM problem. Overall, the e-Services project is 28 months behind schedule and \$72 million over the original budget, due to both scope growth and cost increases. The IFS project is almost \$50 million over the original cost estimate and although it is only two months behind schedule at present, there is no current firm estimate of when it will be delivered. In fact, all seven major application projects the IRS has undertaken are both over cost and behind schedule.

### Getting Behind the Problem

Why did this happen? How did BSM end up with a consistent track record of overruns? Without making excuses, the Modernization program is extremely large and complex with numerous risks. Programs of this scale, and there are very few, are never completed without some level of cost and schedule overruns. However, looking back with 20/20 hindsight, BSM's problems are all too evident and severe. The following are some of the more prominent deficiencies.

There was inadequate business unit ownership and sponsorship of projects. This resulted in unrealistic business cases and continuous project scope "creep".

The much desired environment of trust, confidence and teamwork between the IRS business units, the BSM organization, the Information Technology Services (ITS) organization, and the Prime simply did not exist. In fact, the opposite was true, resulting in an inefficient working environment and, at times, finger pointing when problems arose.

- The project life cycle methodology did not fully support the requirement to estimate future phases of the work. Moreover, the methodology was not always rigorously followed. At times, inappropriate shortcuts were taken in order to meet unrealistic target dates, further exacerbating problems.
- The contracting process was highly inefficient. This caused significant extra overhead for both the Prime and IRS and at times, resulted in work being done without a contract or inappropriate contracts being used.
- The BSM organization did not have the depth and breadth of skills and experience to adequately manage the Modernization program and the Prime contract.
- As the program ran into more and more problems, additional layers of review and auditing were put into place by OMB, the Treasury Inspector General for Tax Administration (TIGTA), GAO, and Congress. While this may be understandable, given BSM's history, it added significant overhead to program management.
- Computer Sciences Corporation (CSC), the Prime team's leader, did not demonstrate that it had the depth of leadership and experience to successfully carry out its responsibilities. The Prime team's track record was marred by continuous delays, missed target dates and budget overruns. CSC did not supply the important thought and program leadership it was engaged to deliver. Up until the last few months, CSC was unable to develop a strong working relationship with the IRS' executive leadership.
- Based on all of the above factors, program productivity levels were extremely low.
- The program schedule was too ambitious given the capabilities of both the IRS and the Prime. There were too many concurrent projects. More became less.

It should be understood that Commissioner Everson and his executive team are new to their responsibilities and to the direction of the Modernization program. However, as soon as delays and overruns experienced this summer became apparent, the Commissioner launched a comprehensive review of Modernization.

The Board was impressed with the speed, thoroughness and openness of this endeavor. It should also be noted that CSC participated fully with this effort and in fact, hired an independent organization to assess its own work. The program of improvements identified by the review process recently began and while a number of difficult decisions must still be made, the Board believes that meaningful progress is being made. Commissioner Everson is to be commended for his swift response. However, more must be done.

### The Board's Recommendations

The problems outlined in this report do not yield to quick or easy solutions. However, this does not mean the IRS is confronting a hopeless situation. BSM's problems can be managed and solved. To this end, the Board makes the following nine recommendations which it believes will help set BSM back on the path to success. In most cases, they are consistent with those made by the independent experts engaged by the IRS and the Prime. In some cases, action has already started.

**Recommendation 1:** The IRS business units must take direct leadership and ownership of the Modernization program and each of its projects. In particular, this must include defining the scope of each project, preparing realistic and attainable business cases and controlling scope changes throughout each project's life cycle. The Deputy Commissioner for Operations Support assumed responsibility for this critical task and has already taken steps to insure that it is put into place.

**Recommendation 2:** Create an environment of trust, confidence and teamwork between the business units, the BSM and ITS organizations, and the Prime. This is a cultural issue and will take time. The Deputy Commissioner for Operations

Support and the CIO have responsibility for this action. CSC is also actively involved.

**Recommendation 3:** Enhance the systems development life cycle methodology to support more accurate estimates of future work phases and put into place the necessary processes to insure that the methodology is followed religiously. Again, this work is under way.

**Recommendation 4:** Enhance the program's contracting process and capabilities.

**Recommendation 5:** Significantly strengthen the experience and capabilities of the BSM team. Its capabilities must be consistent with the scale and complexity of the Modernization program. This will require a meaningful number of outside hires from organizations, such as the Defense Department, that have experience with large, complex programs.

**Recommendation 6:** Try to rationalize the oversight of the program to streamline the process and eliminate duplication. This will require a joint effort of the IRS, OMB, TIGTA, GAO, the Oversight Board and Congress.

**Recommendation 7:** The CADE project requires special attention. CADE is the foundation of Modernization. It is also by far the most costly, complex, largest and longest running project within the BSM portfolio. As part of the review program initiated by the Commissioner, the Software Engineering Institute (SEI) was engaged to review CADE, with special emphasis on the systems architecture, conversion approach and the planned use of a "business rules engine" to make the development and maintenance of the system more efficient.

SEI's findings were generally supportive of the system design and the use of the business rules engine. However, SEI could not be sure that the engine could handle the size and complexity of the CADE system until the rules were defined and modeled. It recommended that a project to define and model the rules—a major effort—be conducted as soon as possible. The Board strongly supports this recommendation.

**Recommendation 8:** Reduce the number of projects being conducted at the same time. Modernization currently has five major projects underway. As demonstrated by the BSM program's performance, neither the IRS nor the Prime has the capability to manage and conduct this many projects at the same time.

In addition, defining and modeling CADE's business rules (as recommended above) will be a significant additional effort. The Board believes that as current work phases are completed, the number of projects should be reduced. This must happen carefully and over time, so that current work efforts are not lost.

Admittedly, this will be a very difficult decision for the IRS to make. Each of the Modernization projects is important and brings significant business value. However, the Board strongly believes that such a step is absolutely necessary for the overall success of Modernization. As both the IRS and Prime demonstrate that they can strengthen their capabilities and improve their performance, the portfolio of concurrent projects can be increased.

**Recommendation 9:** The IRS Oversight Board has lost confidence in the leadership of the Prime contracting team. This conclusion has been reached after observing performance and results for over three years. There have been numerous commitments to enhance the capability of this team, improve its management processes and deliver greater thought and management leadership. Overall results have not changed, target dates and budgets are consistently missed. In fact Mr. Chairman, just last week the IRS was informed that the target date for IFS would have to be changed once again. In our view this was the final straw. The Board now strongly recommends that the IRS consider all options for strengthening the capabilities of the Prime contracting team. The time for strong, aggressive action is now.

The IRS Oversight Board now strongly recommends that the IRS take meaningful action to correct this problem. The IRS needs to consider alternative actions to correct this problem.

### Conclusion

The IRS Oversight Board firmly believes that the IRS Modernization program cannot be allowed to fail. The IRS cannot continue to operate with the outmoded and inefficient systems and processes it uses today. Over time, the existing systems will become impossible to maintain and at that point, the ability to administer our country's tax system will be in grave danger. Such a risk to our nation is unacceptable. We remain convinced that the overall Modernization plan is sound and well-designed. The challenge is executing that plan. The IRS and the Prime must get it right this time.

Meaningful recommendations were made by each of the groups involved in this recent reassessment to improve the management and execution of Modernization. In this same vein and spirit, the Board adds its constructive suggestions today.



The Commissioner and his management team are committed to a Modernization improvement program. The Oversight Board supports that plan and will continue to work with the IRS to make sure that this important effort succeeds.

Chairman HOUGHTON. Thank you, Mr. Levitan. Mr. Palmquist?

**STATEMENT OF M. STEVEN PALMQUIST, CHIEF ENGINEER FOR CIVIL AND INTELLIGENCE AGENCIES, ACQUISITION SUPPORT PROGRAM, SOFTWARE ENGINEERING INSTITUTE, CARNEGIE MELLON UNIVERSITY, PITTSBURGH, PENNSYLVANIA**

Mr. PALMQUIST. Mr. Chairman and Members of the Subcommittee, thank you for inviting me here today. My name is Steven Palmquist. I work for Carnegie Mellon University's Software Engineering Institute (SEI), a federally funded research and development center with a mission to help government and industry improve their software engineering and acquisition practices.

At the SEI, I am the Chief Engineer for Civil and Intelligence Agencies within our Acquisition Support Program. Today, I represent a team of 14 principal and senior members of our staff who performed an Independent Technical Assessment (ITA) of the IRS' CADE program during the late summer and early fall of 2003.

At the SEI, we have performed over 50 ITAs, usually at the request of senior Department of Defense and civil agency leaders when they have a program in trouble. For CADE, Commissioner Everson was our senior sponsor and we appreciated his candor and support.

In each of the ITAs we have performed, we have been impressed with the dedication, intelligence, and resourcefulness of the people involved on both the government and the industry side. The CADE was no exception. This then forces a basic question. With all of these good, talented people, why is CADE failing?

The answer is because CADE, unfortunately, is again not an exception. The CADE fell into the same traps that have crippled many other government and industry programs, both large and small. The CADE's program planning has been deficient, its execution has been uncoordinated. Measurements and metrics have not been properly utilized, and risks have not been identified, profiled, and managed.

In its simplest form, project management has two functions, plan the work and work the plan. This did not happen. Requirements in particular were not fully understood or communicated, and history has shown that budgets and schedules were unrealistic.

We believe the CADE team needs to adopt a "back to basics" approach. First, they need to restore rigor and discipline in their management processes, both programmatic and technical. They must take a long-term total systems view of CADE through a solid systems engineering effort. They must begin the expensive but critical task of harvesting the business rules. They need to strengthen and support their current software development environment, but continue to investigate improvements to that environment, such as a business rules engine. Last, they should continue to seek outside

reviews of their program, a commercial best practice, and one of the key recommendations of the November 2000 report of the Defense Science Board on Defense Software.

The CADE by its nature is high risk. We believe the CADE team can deliver. We believe the talent and the desire is there. It will not happen, however, until the IRS and its industry partners improve their management discipline. We did see evidence of improvements during our ITA. However, many of these processes are still not effectively executed and many are not backed by sufficient technical expertise and experience.

In particular, we have significant concerns with the lack of emphasis on the harvesting of the business rules. There was also not enough information available to determine if the architecture is viable in Releases 3, 4, and 5, and we are especially concerned security is not adequately addressed as CADE moves from its current once a week batch processing environment to the more real-time interactive approach of Releases 3, 4, and 5.

Mr. Chairman, thank you again for the opportunity to be here today. The SEI is proud of the work we did in supporting Commissioner Everson and the IRS, and I look forward to answering any questions you may have.

[The prepared statement of Mr. Palmquist follows:]

**Statement of M. Steven Palmquist, Chief Engineer For Civil and Intelligence Agencies, Acquisition Support Program, Software Engineering Institute, Carnegie Mellon University, Pittsburgh, Pennsylvania**

**Introduction**

Mr. Chairman and members of the Subcommittee, thank you for inviting me to speak to you here today. My name is Steven Palmquist. I work for Carnegie Mellon University's Software Engineering Institute. I am the Chief Engineer for civil and intelligence agencies in our Acquisition Support Program. My background includes licensure as a Professional Engineer and certification as a Project Management Professional.

Today I represent a team of fourteen principal and senior members of our technical staff who performed an independent technical assessment of the IRS's Customer Account Data Engine (CADE) program. This work was done in the late summer/early fall of 2003.

**What is the Software Engineering Institute?**

Founded in 1984, the Software Engineering Institute, or SEI as it is more-commonly known, is a federally funded research and development center (FFRDC). Sponsored by the U.S. Department of Defense, the SEI's mission is to help DoD agencies, other government agencies and industry improve their software engineering and acquisition capabilities.

**What is an Independent Technical Assessment (ITA)?**

An Independent Technical Assessment, or ITA, is an objective examination of a project or program conducted by outside experts. As an FFRDC located at a major university, the SEI is fiercely protective of its credibility and neutrality in conducting these types of assessments. Because of our objectivity, senior military and civil agency executives often request we assess their software-intensive programs. To do this, we form a team with the appropriate mix of expertise drawn from across the Institute. We gather information through interviews, fact-finding visits to facilities, reviews of designs and software architectures, data reviews, and process reviews. We analyze this information and present our findings and recommendations to the senior executive sponsor.

For CADE, IRS Commissioner Everson was our senior executive sponsor.

**Background of the CADE Program and the Critical Role of Business Rules**

In his May 20, 2003 testimony to the Annual IRS Restructuring and Reform Act of 1998 Joint Congressional Review, Commissioner Everson stated, "the centerpiece of the modernization effort is the replacement of the decades-old Master Files . . .

(with) a modern, reliable database, called the Customer Account Data Engine, or CADE.” IRS modernization thus depends on CADE. CADE, as we discovered, depends on business rules.

The IRS and their industry partners agreed on a business rules approach for CADE in a contract awarded in December 1998. Simply put, a business rule is any statement that defines *how* a business *conducts* its business. For the IRS, business rules are principally representations of tax laws and tax forms. The potential benefit of a business rules system is the separation of the business logic from program logic. For example, a business rules approach would allow the IRS to easily change the rules to reflect new tax year changes without affecting the underlying computing environment.

CADE’s original timetable called for five yearly software increments or releases. Release 1, scheduled for January 2002, was primarily the infrastructure needed for all CADE releases. It also contained the approximately 1,200 business rules needed to process 1040EZ filers. Subsequent CADE releases significantly increase both the number and complexity of business rules such that by Release 5, all of CADE’s estimated 50,000 business rules are included. With Release 5, the IRS would process nearly all individual tax filers using CADE.

The Release 1 business rules were originally to be coded using a business rules engine, a commercial software tool. A business rules engine interprets a formalized representation of the natural-language expression of a business rule to generate the software code that implements the business rule. A rules engine offers the promise of faster rules coding, which will be critical in CADE’s later releases, where the huge majority of rules reside. In fact, all of CADE’s future cost, schedule, and performance goals depend on the assumed efficiency of a rules engine.

However, the Release 1 business rules engine effort stalled over contractual issues. The IRS’s industry partners then coded the business rules using the C++ programming language. This switch was one of the principal reasons Release 1 missed the original January 2002 delivery date, which was rescheduled for August 2003. However, the plan remained to use a business rules engine on subsequent releases, including a revised Release 1, so that all CADE business rules would still be implemented and managed by the rules engine.

#### **Background of the SEI’s ITA of CADE**

Because of the continued focus on a business rules engine, the IRS requested we perform a “health check” on its use on CADE. On July 1, 2003, we began this work.

On July 25, 2003, however, Commissioner Everson announced that CADE Release 1 would also miss the new August 2003 delivery date. Coincident with this announcement, Commissioner Everson expanded the scope of the health check to a full ITA of all of CADE.

We completed the ITA and presented our report to Commissioner Everson in October 2003. In the four months since, both the IRS and their industry partners have worked on our findings and recommendations. We have not been involved in these efforts, so we have not updated our report. The following findings and recommendations, therefore, represent CADE as it stood in the late summer and early fall of 2003.

#### *Principal Findings*

##### **Delivery of Release 1**

We believe the IRS and its industry partners can deliver CADE Release 1—with the functionality/design as described to us during the ITA—by August or September of 2004. This is provided no new requirements emerge and the IRS and their industry partners agree to the acceptance criteria. As expressed to Commissioner Everson, our confidence in this date was approximately sixty percent.

##### **A Business Rules Approach**

We agree that a business rules approach offers the IRS a potentially significant capability to manage and improve their operations. Reaching that potential with a system as large as CADE, however, will require a more-disciplined approach and execution by both the IRS and their industry partners. As an example, at the time of our ITA there was no definitive evidence that the rules engine would perform adequately in the IRS’s operational environment or in their industry partners’ development, test, and maintenance environment.

##### **Long-term Vision**

We believe the current emphasis on Release 1 has been at the expense of a long-term perspective. Any complex software system involves balancing competing requirements of performance, security, interoperability, maintainability, modifiability,

etc.—commonly called the quality attributes. For CADE, those requirements are implemented in a sequence of coordinated steps in successive releases of the modernized system. The choices of the step content, and the balancing of these critical system properties, depend on how the IRS will use the modernized system at each stage. However, this analysis has not been adequately addressed for future releases. This is particularly true for security concerns as the IRS moves from its current “lock down” security environment into the interactive environment of later CADE releases.

#### **Software Capability**

While a number of CADE’s problems can be attributed lapses in the industry partners’ software development processes, we believe the industry partners can deliver quality software. Recent improvements in systems engineering, measurement and metrics, and technical reviews have resulted in improved performance. However, several key development processes are still not effectively integrated, and there is no clear chain of command for technical decision-making.

#### **Management Capability**

We saw evidence that both the IRS and their industry partners are moving toward more effective management discipline. One example of this is the adoption of the Software Acquisition Capability Maturity Model (SA-CMM). However, not all their processes are effectively executed, and many are not backed by sufficient technical expertise and experience. Risk management, requirements management, staffing and talent retention, communications management and creating accurate budgets and schedules all remain areas of concern.

#### *Principal Recommendations*

##### **Harvest the IRS Business Rules**

We believe that harvesting the business rules, not coding them, will drive the cost and schedule of future CADE releases. By harvesting, we mean capturing, adjudicating, and cataloging the rules. CADE has invested many resources exploring rules engines, but few resources exploring the rules themselves. The IRS needs to understand and document their business rules as well as the rules’ complicated interactions. Some of the delays that have already plagued CADE are a direct result of an imperfect understanding of the business rules. This situation will only grow as the number and complexity of the implemented rules increases.

In addition, the IRS does not know the number of business rules in CADE with any reasonable degree of certainty. Therefore, no one knows how long rule harvesting will take, how many people will be required, the background, training and experience of the people required, or how much it will cost. Based on anecdotal information presented to us, we believe the time will be measured in years and cost will be measured in the tens of millions of dollars.

Until sound, supported cost and schedule estimates for rule harvesting are available, future CADE plans and schedules are only tentative and likely subject to delays and missed milestones.

##### **Institutionalize Systems Engineering**

CADE needs a strong systems engineering approach to identify and handle programmatic and technical risks. To do this, the IRS’s industry partners need to establish a permanent CADE systems engineering group. We recommend the IRS and its industry partners use “model problems” to help understand the risks and potentially uncover new, critical unknowns.

The IRS also needs dedicated system engineers to staff the systems engineering group. These persons would be responsible for understanding CADE’s technical issues, as well as the industry partners’ proposed solutions, for their impact on the IRS. In particular, the IRS should lead an integrated team to define, monitor, manage, and support operational security. This effort should be across not only CADE but also the entire modernization effort and the IRS’s legacy computing environment.

##### **Validate Business Rules Engines**

As stated earlier, all of CADE business rules are currently coded in C++. While this was not the original plan, it is the only design approach for which CADE has historical data, and the only approach validated in the CADE environment. Therefore, C++ is the baseline design approach and should be the basis for future planning.

However, other design approaches—the rules engine, improving the C++ environment, or other programming options—should be examined. If they have merit, they should be rigorously validated in the CADE environment. If any of these alter-

natives prove superior (in terms of performance, risk, cost, schedule, etc.), they could then become the primary design approach. Coding the rules in C++ then becomes the fallback design approach, but one with known cost, schedule, and performance data.

#### **Institutionalize Management Discipline**

The IRS and its industry partners must both improve their management discipline. While the following list is in no way complete, we believe both parties should:

- continue to build a collaborative, active management structure
- establish real, supported risk management programs to aggressively identify and manage risk
- improve their ability to jointly create realistic cost and schedule estimates
- coordinate testing activities
- create a baseline set of known requirements, and characterize the “known unknowns” for all releases
- determine the communication needs of all CADE stakeholders, and lay out a plan for how needed information will be distributed, received and used
- establish mechanisms to independently monitor these activities
- capture lessons learned and feed the information forward to future activities

#### **Plan for Independent Oversight**

Because large, complex, software-intensive system acquisitions face a number of challenges, they often can benefit from experienced and trusted software expertise. For example, the Army’s Future Combat System (FCS) program has a software steering committee to help identify issues and risks and offer an overall “sanity check” one step removed from day-to-day operations.

In the FCS model, both the government and contractor call on the members of the software steering committee. The group functions to advise, and not to critique, senior management. The group is a partner rather than another oversight body. Recent lessons learned from the first phase of the FCS program have cited the software steering committee as an indispensable factor in achieving program goals.

A second type of oversight is an independent expert review, similar to our ITA. Independent expert reviews are an industry best practice and one of the key recommendations of the November 2000 *Report of the Defense Science Board Task Force On Defense Software*, issued by the Office of the Under Secretary of Defense For Acquisition and Technology.

Independent expert reviews last one-to-two days and are held two to three times a year. The reviews are designed to help program teams ensure:

- disciplined processes and methodologies are in place
- the program is adequately resourced
- the technical baseline is understood and solid, with attendant risks and opportunities identified and managed
- adequate progress is being achieved

To be effective, the independent expert reviews need to be part of CADE, with these two defining elements:

- the reviews are scheduled parts of, not intrusions into, CADE’s management and development plans, schedules and processes
- CADE’s program and technical management are robust and flexible enough to pursue the opportunities and address the weaknesses uncovered by the reviews

Without these two conditions, the value of the reviews diminishes exponentially.

#### *Conclusion*

We commend the IRS and their industry partners for seeking review from outside sources. Incorporating insight and recommendations from other organizations (such as commercial financial organizations, other government agencies, academia, etc.) will yield a richer set of recommendations to help put CADE back on track. However, any recommendation—including our own—must be regularly evaluated for appropriateness in the CADE environment, as well as for their benefit to the IRS in terms of cost, schedule, and performance.

Mr. Chairman, thank you again for the opportunity to be here today. The SEI is proud of the work we did supporting Commissioner Everson and the IRS. I look forward to answering any questions you may have.



Chairman HOUGHTON. Thanks very much, Mr. Palmquist. Mr. Dacey?

**STATEMENT OF ROBERT F. DACEY, DIRECTOR, INFORMATION SECURITY ISSUES, U.S. GENERAL ACCOUNTING OFFICE**

Mr. DACEY. Mr. Chairman and Members of the Subcommittee, I am pleased to be here today to discuss IRS' system modernization efforts. I will briefly summarize my written statement.

The IRS' attempts to modernize its aging computer system span many years. A history of continuing delays and design difficulties led to GAO designating IRS's system modernization efforts as high-risk in 1995. The IRS' current effort, BSM, was initiated in fiscal year 1999. To date, about \$1.7 billion has been appropriated, including about \$388 million for fiscal year 2004.

To facilitate Congressional oversight of this program, annual appropriations laws have mandated that modernization funds not be available until IRS submits to the Appropriations Committees for approval a modernization expenditure plan that satisfies certain legislative conditions, including a review by GAO. We are currently reviewing the fiscal year 2004 expenditure plan.

In prior reviews of these plans, we have identified numerous deficiencies in the BSM program and provided recommendations to address them, most importantly, balancing the pace of systems acquisition projects with the agency's ability to manage them, and also establishing repeatable processes for acquiring software and improving modernization management controls and capabilities, such as those related to configuration management and cost and schedule estimating.

In response to our recommendations, IRS has made important progress which the Commissioner discussed earlier this morning. Nevertheless, as we reported last June, IRS continued to face challenges to fully develop and implement its management capabilities.

Our written testimony provides an analysis of the reported cost overruns and schedule delays that have affected most of the current BSM projects. In addition to the deficiencies I had previously discussed, our work has shown that the increases and delays were caused in part by several factors, including inadequate definitions of system requirements, increases in project scope, and underestimating project complexity. These schedule delays and cost overruns have impaired IRS' ability to make appropriate decisions about investing in projects, have delayed the delivery of benefits to taxpayers, and postponed the resolution of material weaknesses in other IRS program areas.

Given the continued cost overruns and schedule delays, IRS and CSC launched internal and independent assessments during 2003 on the health of BSM as a whole and CADE in particular. These more in-depth and comprehensive assessments provided an analysis of BSM weaknesses and risks consistent with our prior findings that contributed to these delays. The assessments also provided actionable recommendations to address the weaknesses.

Based on these assessments, IRS developed action plans for 46 specific issues that it identified for resolution, 27 of which they have reported were completed at the end of last month. Also, IRS

has contracted with MITRE to conduct an independent analysis of the efficacy of these action plans.

Significant further work remains to complete implementation of the remaining 19 issues. The IRS is also taking other action, such as planning to have SEI conduct further periodic reviews of the CADE project. Additionally, IRS is responding to recommendations from the Oversight Board, which Mr. Levitan summarized briefly a moment ago, and from the Treasury Inspector General for Tax Administration. The IRS has reported they expect to fully implement remaining open actions by the end of this calendar year.

Commitment of appropriate resources and top management attention are critical to meeting these challenges and improving BSM performance. In addition, continuing oversight by Congress, OMB, and others, as well as ongoing assessments of the program, can assist IRS in strengthening the program.

Mr. Chairman and Members of the Subcommittee, this concludes my statement. I will be pleased to answer any questions that you have.

[The prepared statement of Mr. Dacey follows:]

**Statement of Robert F. Dacey, Director, Information Security Issues, U.S. General Accounting Office**

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss the Internal Revenue Service's (IRS) actions to modernize its computer systems. Although updated through the years, IRS's set of computer systems is based on an architecture that dates from the 1960s. This architecture has inhibited IRS's ability to effectively and efficiently perform its mission of providing service to taxpayers and enforcing the nation's tax laws. However, IRS's attempts to modernize its computer systems and underlying architecture now span three decades. Given the long history of continuing delays and design difficulties, we previously designated IRS's modernization program as a high-risk area in 1995.<sup>1</sup> It remains so today.<sup>2</sup>

IRS's current multibillion-dollar effort, known as the Business Systems Modernization (BSM) program, was initiated in fiscal year 1999. IRS contracted with Computer Sciences Corporation (CSC) as the prime contractor to assist with designing, developing, and integrating a new set of information systems that were intended to replace IRS's aging business and tax processing systems. To date, about \$1.7 billion has been appropriated for the program, including about \$388 million for fiscal year 2004.<sup>3</sup>

To facilitate congressional oversight of this program, annual appropriations laws since fiscal year 1998 have mandated that modernization funds not be available until IRS submits to the congressional appropriations committees for approval a modernization expenditure plan that satisfies six legislative conditions, including that it be reviewed by us.<sup>4</sup> We are currently reviewing the fiscal year 2004 BSM expenditure plan. During our past reviews of such plans, we have noted numerous modernization management control deficiencies and made recommendations to correct them. Although IRS has made progress in implementing our recommendations, BSM continues to face significant challenges and serious risks. Recognizing these risks, IRS and CSC recently completed several in-depth and more comprehensive assessments on the health of the BSM program, including an independent technical

<sup>1</sup>U.S. General Accounting Office, High-Risk Series: An Overview, GAO/HR-95-1 (Washington, D.C.: February 1995).

<sup>2</sup>U.S. General Accounting Office, High-Risk Series: An Update, GAO-03-119 (Washington, D.C.: January 2003).

<sup>3</sup>P.L. 108-199, Div. F, Title II, Jan. 23, 2004. IRS uses the appropriated totals to cover contractor costs related to the BSM program. IRS funds internal costs for managing BSM with another appropriation. These costs are not tracked separately for BSM-related activities.

<sup>4</sup>The other five legislative conditions are that the expenditure plan (1) meets Office of Management and Budget's (OMB) capital planning and investment control review requirements; (2) complies with IRS's enterprise architecture; (3) conforms with IRS's enterprise life cycle methodology; (4) is approved by IRS, Treasury, and OMB; and (5) complies with federal acquisition rules, requirements, guidelines, and system acquisition management practices.

assessment of the Customer Account Data Engine (CADE) project, a project critical to the success of BSM. IRS has developed an action plan to address the assessments' recommendations, and has begun to act on it.

In my testimony today I will summarize our prior findings and recommendations and those of the recently completed program assessments. I will also discuss the actions IRS reports it has taken or plans to take to address issues raised by these assessments.

In preparing this testimony, we relied on our prior reports and testimony on IRS's systems modernization activities and BSM expenditure plans. We also reviewed and analyzed information contained in the BSM expenditure plan for fiscal year 2004; Carnegie Mellon University Software Engineering Institute's (SEI) independent technical assessment of CADE; reports on the BSM program by the Treasury Inspector General for Tax Administration and the IRS Oversight Board; and IRS briefing materials (1) analyzing the root causes of BSM project cost increases and schedule delays, (2) independent reviews of CSC's business processes and IRS's procurement practices, and (3) IRS's action plan to address issues identified by the reviews. We did not independently validate planned projects' cost estimates or confirm, through system and project management documentation, the validity of IRS-provided information on the projects' content and progress. Our work was performed during the past month, in accordance with generally accepted government auditing standards.

### **Background**

The tax administration system that collects about \$2 trillion in revenues each year is critically dependent on a collection of obsolete computer systems developed by the IRS over the last 40 years. IRS envisions a future in which its tax processing environment will be virtually paper-free, and up-to-date taxpayer information will be readily available to IRS employees to respond to taxpayer inquiries. To accomplish this, IRS embarked on its ambitious BSM program. BSM involves the development and delivery of a number of modernized business, data, and core infrastructure projects that are intended to provide improved and expanded service to taxpayers as well as IRS internal business efficiencies. Recognizing the long-term commitment needed to solve the problem of obsolete computer systems, Congress set up a special BSM account in fiscal year 1998 to fund IRS's systems modernization efforts.

IRS initiated CADE as part of BSM, to modernize the agency's outdated and inefficient data management system.<sup>5</sup> IRS also sees this project as the corporate data source enabling future customer service and financial management applications. CADE is therefore IRS's linchpin modernization project. In light of the projects that depend on CADE, as well as the many interrelationships that are to exist among CADE and IRS's modernized applications and among CADE and current IRS applications, the agency must manage this critical project effectively. Without CADE, the business systems modernization program cannot succeed.

### **IRS Has Made Improvements, But Systems Modernization Program Remains High-Risk**

IRS's attempts to modernize its aging computer systems span several decades. This long history of continuing delays and design difficulties led to our designating IRS's Tax Systems Modernization program, BSM's predecessor, as a high-risk area in 1995.<sup>6</sup> During the mid-1990s we reported on several technical and management weaknesses associated with Tax Systems Modernization, a program that began in the 1980s. These weaknesses related to incomplete or inadequate strategic information management practices; immature software development capability; incomplete systems architecture, integration planning, system testing, and test planning practices; and the lack of an effective organizational structure to consistently manage and control systems modernization organizationwide. We made a series of recommendations for correcting these weaknesses and limiting modernization activities until they were corrected.<sup>7</sup> IRS subsequently discontinued the program after the

<sup>5</sup> The current system—referred to by IRS as the master files—contains taxpayer account and return data. There are master files for individuals, businesses, and employer retirement plans. A nonmaster file for taxpayer data also exists that cannot be stored in the other master files due to data format and space limitations.

<sup>6</sup> GAO/HR-95-1.

<sup>7</sup> U.S. General Accounting Office, *Tax Systems Modernization: Management and Technical Weaknesses Must Be Corrected If Modernization Is to Succeed*, GAO/AIMD-95-156 (Washington, D.C.: July 26, 1995) and *Tax Systems Modernization: Blueprint Is a Good Start, But Not Yet Sufficiently Complete to Build or Acquire Systems*, GAO/AIMD/GGD-98-54 (Washington, D.C.: Feb. 24, 1998).



agency had spent about \$4 billion without receiving expected benefits. In fiscal year 1999, IRS launched the BSM program. IRS contracted with CSC as its prime systems integration services contractor for systems modernization, helping it design new systems and identify other contractors to develop software and perform other tasks.

In our reviews of IRS's BSM expenditure plans, we have identified numerous deficiencies in the BSM program, including a continuation of the weaknesses noted above. Also, a consistent challenge for IRS has been to make sure that the pace of systems acquisition projects does not exceed the agency's ability to manage them. In May and November 2000, we reported that projects were in fact getting ahead of the modernization management capacity that needed to be in place to manage them effectively.<sup>8</sup> In February 2002 we reported that such an imbalance was due to IRS's first priority and emphasis being on getting the newer, more modern systems—with their anticipated benefits to taxpayers—up and running.<sup>9</sup> In so doing, however, management controls had not been given equal attention and thus had not kept pace. This emphasis on new systems added significant cost, schedule, and performance risks that escalate as a program advances. Moreover, these risks increased as IRS moved forward because of interdependencies among projects, and the complexity of associated workload activities to be performed increased dramatically as more systems projects were built and deployed.

In addition, we identified other deficiencies in the BSM program, including the need to establish processes that meet the level 2 requirements of the SEI's Software Acquisition Capability Maturity Model<sup>TM</sup>,<sup>10</sup> and to improve modernization management controls and capabilities, such as those related to configuration management, risk management, enterprise architecture implementation, human capital strategic management, integrated program scheduling, and cost and schedule estimating.

In response to our recommendations, IRS has made important progress. First, significant progress has been made in establishing the modernization management controls needed to effectively acquire and implement information technology systems. For example, IRS has

- invested incrementally in its modernization projects;
- defined a systems life cycle management methodology, which IRS refers to as the Enterprise Life Cycle;
- developed and is using a modernization blueprint, commonly called an enterprise architecture, to guide and constrain its modernization projects; and
- established processes that meet the level 2 requirements of the SEI's Software Acquisition Capability Maturity Model<sup>TM</sup>.

Second, IRS has made progress in establishing the infrastructure systems on which future business applications will run. For example, IRS has delivered elements of the Security and Technology Infrastructure Release to provide the hardware, software, and security solutions for modernization projects. IRS has also built an enterprise integration and test environment that provides the environment and tools for multiple vendors associated with a release to perform integration and testing activities.

Third, it has delivered certain business applications that are producing benefits today. These applications include

- Customer Communications 2001, to improve telephone call management, call routing, and customer self-service applications;
- Customer Relationship Management Examination, to provide off-the-shelf software to IRS revenue agents to allow them to accurately compute complex corporate transactions; and
- Internet Refund/Fact of Filing, to improve customer self-service by providing to taxpayers via the Internet instant refund status information and instructions for resolving refund problems.

<sup>8</sup>U.S. General Accounting Office, Tax Systems Modernization: Results of Review of IRS' March 7, 2000, Expenditure Plan, GAO/AIMD-00-175 (Washington, D.C.: May 24, 2000) and Tax Systems Modernization: Results of Review of IRS' August 2000 Interim Spending Plan, GAO-01-91 (Washington, D.C.: Nov. 8, 2000).

<sup>9</sup>U.S. General Accounting Office, Business Systems Modernization: IRS Needs to Better Balance Management Capacity with Systems Acquisition Workload, GAO-02-356 (Washington, D.C.: Feb. 28, 2002).

<sup>10</sup>Carnegie Mellon University's Software Engineering Institute has developed criteria, known as the Software Acquisition Capability Maturity Model<sup>TM</sup>, for determining organizations' software acquisition management effectiveness or maturity. A Level 2 organization has established its basic project management processes in the following key process areas: acquisition planning, solicitation, requirements development and management, project management, contract tracking and oversight, evaluation, and transition to support.

Fourth, IRS took steps to align the pace of the program with the maturity of IRS's controls and management capacity, including reassessing its portfolio of planned projects.

Nevertheless, IRS continued to face challenges to fully develop and implement its modernization management capacity. Last June we reported that IRS had not yet fully implemented a strategic approach to ensuring that it has sufficient human capital resources for implementing BSM, nor had it fully implemented management controls in such areas as configuration management, estimating costs and schedules, and employing performance-based contracting methods.<sup>11</sup> We made several recommendations to address those issues. Our analysis has shown that weak management controls contributed directly to the cost, schedule, and/or performance shortfalls experienced by most projects. Given that the tasks associated with those projects that are moving beyond design and into development are by their nature more complex and risky and that IRS's fiscal year 2004 BSM expenditure plan supports progress toward the later phases of key projects and continued development of other projects, systems modernization projects likely will encounter additional cost and schedule shortfalls. IRS will need to continue to assess the balance between the pace of the program and the agency's ability to manage it.

#### **Projects Continue to Incur Cost Increases and Schedule Delays**

Based on IRS's expenditure plans, BSM projects have consistently cost more and taken longer to complete than originally estimated. Table 1 shows the life cycle variance in cost and schedule estimates for completed and ongoing BSM projects. These variances are based on a comparison of IRS's initial and revised cost and schedule estimates to complete initial operation<sup>12</sup> or full deployment<sup>13</sup> of the projects.

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<sup>11</sup>U.S. General Accounting Office, Business Systems Modernization: IRS Has Made Significant Progress in Improving Its Management Controls, but Risks Remain, GAO-03-768 (Washington, D.C.: June 27, 2003)

<sup>12</sup>Initial operation refers to the point at which a project is authorized to begin enterprisewide deployment.

<sup>13</sup>Full deployment refers to the point at which enterprisewide deployment has been completed and a project is transitioned to operations and support.

Table 1: IRS BSM Project Cost/Schedule Variance Summary

Project	Cost variance (in thousands)	Reported/revised estimated cost (in thousands)	Schedule variance (in months)	Reported/revised estimated completion date
<b>Completed Projects</b>				
Security and Technology Infrastructure Release 1	+\$7,553	\$41,287	+5	1/31/02 (initial operation)
Customer Communications 2001	+5,310	46,420	+9	2/26/02 (full deployment)
Customer Relationship Management Exam	-1,938	7,375	+3	9/30/02 (full deployment)
Human Resources Connect Release 1	+200	10,200	0	12/31/02 (initial operation)
Internet Refund/Fact of Filing	+12,923	26,432	+14	9/26/03 (full deployment)
<b>Ongoing Projects <sup>a</sup></b>				
Modernized e-File Release 1	+17,057	46,303	+4.5	3/31/04 (initial operation)
e-Services	+86,236	130,281	+18	4/30/05 (full deployment)
CADE Release 1	+36,760	97,905	+30b	6/30/05 <sup>b</sup> (full deployment)
Integrated Financial System Release 1	+53,916	153,786	TBD <sup>b</sup>	TBD <sup>b</sup> (full deployment)
Custodial Accounting Project Release 1	+72,058	119,219	TBD <sup>b</sup>	TBD <sup>b</sup> (full deployment)
Customer Account Management Release 1	TBD <sup>c</sup>	TBD <sup>c</sup>	TBD <sup>c</sup>	TBD <sup>c</sup>

Source: GAO analysis of data contained in IRS's BSM expenditure plans.

<sup>a</sup>Projects ongoing as of 9/30/03.

<sup>b</sup>Project schedules for CADE, the Integrated Financial System, and the Custodial Accounting Project are currently under review.

<sup>c</sup>To be determined. Work on the Customer Account Management project was suspended following the completion of preliminary design activities. No further work is planned until at least fiscal year 2005.

As the table indicates, the cost and schedule estimates for full deployment of the e-Services project have increased by just over \$86 million and 18 months, respectively. In addition, the estimated cost for the full deployment of CADE release 1 has increased by almost \$37 million, and project completion has been delayed by 30 months. In addition to the modernization management control deficiencies discussed above, our work has shown that the increases and delays were caused, in part, by

- *inadequate definitions of systems requirements.* As a result, additional requirements have been incorporated into ongoing projects.
- *increases in project scope.* For example, the e-Services project has changed significantly since the original design. The scope was broadened by IRS to provide additional benefits to internal and external customers.
- *cost and schedule estimating deficiencies.* IRS has lacked the capability to effectively develop reliable cost and schedule estimates.
- *underestimating project complexity.* This factor has contributed directly to the significant delays in the CADE release 1 schedule.
- *competing demands of projects for test facilities.* Testing infrastructure capacity is insufficient to accommodate multiple projects when testing schedules overlap.

- *project interdependencies*. Delays with one project have had a cascading effect and have caused delays in related projects.

These schedule delays and cost overruns impair IRS's ability to make appropriate decisions about investing in new projects, delay delivery of benefits to taxpayers, and postpone resolution of material weaknesses affecting other program areas.

Producing reliable estimates of expected costs and schedules is essential to determining a project's cost-effectiveness. In addition, it is critical for budgeting, management, and oversight. Without this information, the likelihood of poor investment decisions is increased.

Schedule slippages delay the provision of modernized systems' direct benefits to the public. For example, slippages in CADE will delay IRS's ability to provide faster refunds and respond to taxpayer inquiries on a timely basis.

Delays in the delivery of modernized systems also affect the remediation of material internal management weaknesses. For example, IRS has reported a material weakness associated with the design of the master files. CADE is to build the modernized database foundation that will replace the master files. Continuing schedule delays will place resolution of this material weakness further out into the future. In addition, the Custodial Accounting Project is intended to address a financial material weakness and permit the tracking from submission to disbursement of all revenues received from individual taxpayers. This release has yet to be implemented, and a revised schedule has not yet been determined. Finally, the Integrated Financial System is intended to address financial management weaknesses. When IRS submitted its fiscal year 2003 BSM expenditure plan, release 1 of the Integrated Financial System was scheduled for delivery on October 1, 2003. However, it has yet to be implemented, and additional cost increases are expected.

#### **Internal and Independent Assessments of BSM Have Identified Significant Weaknesses and Risks**

Given the continued cost overruns and schedule delays experienced by these BSM projects, IRS and CSC launched internal and independent assessments during 2003 of the health of BSM as whole, as well as CADE. Table 2 describes these assessments.

**Table 2: BSM Assessments Undertaken During 2003**

Subject	Organization conducting assessment	Purpose
Root cause analysis	IRS	To review data from historical documents and interviews to determine root causes for schedule delays and cost increases
PRIME review	Bain and Company	To identify root causes of breakdown in CSC's business processes and engagement model and provide recommended solutions
IRS Office of Procurement Assessment	Acquisition Solutions, Inc.	To assess the efficiency and effectiveness of the IRS procurement organization structure, employment of best practices, management and administration, staffing, and to briefly review BSM contracting
CADE assessment	SEI	To provide an independent technical assessment of CADE program history and the feasibility of future plans

Source: IRS

The IRS root cause analysis, PRIME review, and the Office of Procurement assessment revealed several significant weaknesses that have driven project cost overruns and schedule delays, and also provided a number of actionable recommendations for IRS and CSC to address the identified weaknesses and reduce the risk to BSM. Deficiencies identified are consistent with our prior findings and include

- poorly defined requirements,
- low program productivity levels,

- project scope creep,
- IRS/PRIME role confusion,
- immature management processes,
- ineffective integration across IRS, and
- insufficient applications and technology engineering.

As noted, CADE release 1 has experienced significant reported cost overruns and schedule delays throughout its life cycle, and has yet to be delivered. SEI's independent technical assessment of CADE pointed to four primary factors that have caused the project to get off track and resulted in such severe cost and schedule impairments: (1) the complexity of CADE release 1 was not fully understood; (2) the initial business rules engine effort stalled; (3) both IRS and PRIME technical and program management were ineffective in key areas, including significant breakdowns in developing and managing CADE requirements; and (4) the initially contentious relationship between IRS and PRIME hindered communications. SEI also warned that CADE runs the risk of further trouble with later releases due to unexplored/unknown requirements; security and privacy issues that have not been properly evaluated (e.g., online transactions are different from the way IRS does business today); dependence on an unproven business rules engine<sup>14</sup> software product; and the critical, expensive, and lengthy business rules harvesting<sup>15</sup> effort that has not yet been started. SEI offered several recommendations to address current CADE issues and reduce project risk in the future.

#### **IRS Is Acting to Resolve Issues Identified in the BSM Assessments**

Based on these assessments, IRS identified a total of 46 specific issues for resolution in the following six areas, and developed a BSM action plan comprising individual action plans to address each issue:

- *Organization and Roles.* Immediate steps are needed to clarify IRS/PRIME roles and responsibilities and clearly define decision-making authorities.
- *Key Skills & Strengthening the Team.* Strengthened skills and capabilities are needed in such key areas as project management and systems engineering.
- *Technology—Architecture & Engineering.* More focus is needed to improve current systems architecture integration.
- *Technology—Software Development Productivity & Quality.* Improvements in product quality and productivity are essential to strengthening software delivery performance.
- *Acquisition.* Contracting and procurement practices require major streamlining to improve overall contract management.
- *CADE.* Delivery of CADE release 1 will require aggressive focus and attention, and a business rules engine solution requires additional evaluation.

These 46 issue action plans were assigned completion dates and an IRS or PRIME owner was assigned to take the lead in implementing each plan. IRS and PRIME each also assigned a senior-level executive to drive the execution of the issue action plans, identify and help mitigate implementation hindrances or roadblocks, and ensure successful completion of all planned actions. To assess the efficacy of the BSM action plan, MITRE was tasked with conducting an independent analysis and provided feedback to IRS on the effectiveness of the specific issue action plans to address the associated findings/recommendations and correct any problems found.

IRS has reported making steady progress with implementing the BSM action plan. According to the IRS BSM program office, as of late January 2004, 27 of the 46 issue action plans have been completed. Examples of completed actions include (1) making business owners and program directors accountable for project success; (2) assigning teams to investigate and resolve problem areas on key projects such as CADE, the Integrated Financial System, and e-Services; (3) aligning critical engineering talent to the most critical projects; (4) increasing the frequency of CADE program reviews; and (5) issuing a firm fixed-price contracting policy.

Significant further work remains to complete implementation of the remaining 19 open issue action tasks. Bain & Company—which conducted the independent review of PRIME—has been hired to facilitate the implementation of various issue action

<sup>14</sup>A business rules engine translates business rules, or processing criteria (e.g., income tax refunds of \$x or more are held for administrative review), into executable computer code which processes transactions related to a tax form, and selects and executes correct rules based on the tax year and tax form.

<sup>15</sup>Business rules harvesting refers to the process of extracting, defining, and documenting tax processing criteria from a variety of sources, including IRS subject matter experts, legacy system source code, the tax code, and various other paper documents.

plans within the Organization and Roles challenge area, while IRS has also contracted with SEI to conduct further periodic reviews of the CADE project.

Additionally, the IRS Oversight Board recently issued a report<sup>16</sup> on its own independent analysis of the BSM program, which made several observations and recommendations that are consistent with those discussed here. IRS has conducted an analysis of this report to reconcile the board's recommendations with those that are currently being addressed in the BSM action plan. As a result, IRS plans to open two additional issues and action plans to address (1) rationalizing and streamlining oversight of the BSM program, and (2) determining and maintaining a manageable portfolio of projects. IRS expects to complete the majority of the BSM action plan by end of April of this year, and fully implement any remaining open actions by the end of the calendar year.

Further, during 2003, the Treasury Inspector General for Tax Administration performed several reviews related to management of the BSM program and for specific BSM projects. These reviews identified several issues, including those related to compliance with the defined management and project development processes, full implementation of disciplined project testing processes and procedures, IRS's cost and schedule estimation process, and contract management. IRS management reaffirmed their commitment to fully implement key management and project development processes.

#### **Concluding Observations**

IRS's multibillion-dollar BSM program is critical to agency's successful transformation of its manual, paper-intensive business operations and fulfilling its restructuring activities. The agency has made important progress in establishing long-overdue modernization management capabilities and in acquiring foundational system infrastructure and some applications that have benefited the agency and the public. However, our reviews, those of the Treasury inspector general, and the recently completed internal and independent assessments of the BSM program clearly demonstrate that significant challenges and serious risks remain. IRS acknowledges this and is acting to address them.

To successfully address these challenges and risks and to modernize its systems, IRS needs to continue to strengthen BSM program management by continuing efforts to

- balance the scope and pace of the program with the agency's capacity to handle the workload, and
- institutionalize the management processes and controls necessary to resolve the deficiencies identified by the reviews and assessments.

Commitment of appropriate resources and top management attention are critical to resolving the identified deficiencies. In addition, continuing oversight by the Congress, OMB, and others, as well as ongoing independent assessments of the program, can assist IRS in strengthening the BSM program.

Meeting these challenges and improving performance are essential if IRS and the PRIME contractor are to successfully deliver the BSM program and ensure that BSM does not suffer the same fate as previous IRS modernization efforts.

Mr. Chairman, this concludes my statement. I would be pleased to respond to any questions that you or other members of the subcommittee may have at this time.

Chairman HOUGHTON. Thank you very much. Well, Mr. Cofoni, you are on the hot seat.

Mr. COFONI. Yes, I am, sir.

[Laughter.]

Chairman HOUGHTON. Delighted to have you here.

Mr. COFONI. Thank you.

Chairman HOUGHTON. Please give your testimony.

<sup>16</sup>IRS Oversight Board Special Report, Independent Analysis of IRS Business Systems Modernization, December 2003.

**STATEMENT OF PAUL COFONI, PRESIDENT FEDERAL SECTOR,  
AND CORPORATE VICE PRESIDENT, COMPUTER SCIENCES  
CORPORATION, EL SEGUNDO, CALIFORNIA**

Mr. COFONI. Mr. Chairman, Mr. Pomeroy, Mr. Portman, I welcome this opportunity to testify today. I am Paul Cofoni, President of the Federal Sector and Corporate Vice President of CSC.

Since December 1998, we have led the PRIME Alliance for the IRS. The PRIME Alliance includes some of the best names in the technology and business modernization world, SAIC, IBM, Unisys, Northrop-Grumman, and BearingPoint. In addition to our alliance partners, there are about 809 small business subcontractors performing work on the program, all of which, by the way, are doing that work in this country and principally in Maryland and New Carrollton, across the street from the IRS large building complex.

While there have been difficulties with the BSM program, in partnership with the IRS, we have created, in fact, a strong program with a sound architecture and a technology foundation for future success. The IRS's past difficulties in modernizing its technology are well documented. Past attempts lacked the central vision and architecture, and most of all, failed to achieve business objectives that would benefit taxpayers or provide significant efficiencies to the government.

In 1998, after 2 years of competitive bidding, the IRS awarded the CSC PRIME Alliance team a contract for up to 15 years with an original estimated value of up to \$7 billion. Under the contract, work is identified by task order and separately procured, competitively separately procured.

Through December 2003, Congress has appropriated approximately \$1.35 billion, and the IRS has funded CSC for approximately \$927 million of that \$1.35 billion. That has been done through 114 task orders and approximately 1,100 task order modifications.

Since beginning the program, the PRIME Alliance and the IRS have delivered key program and technology foundational elements and business applications for the BSM program. These include an enterprise architecture and transition strategy that has been awarded best in class this past year within government; an enterprise life cycle process tailored to the IRS's specific needs that creates a methodology for implementing the enterprise architecture; and a software acquisition model that has been evaluated by Carnegie Mellon's SEI at Level 3. I would add, CSC is the first company in the world to receive Level 3 accreditation for software acquisition. We also assisted the IRS in achieving a Level 2, and the IRS is the first civilian agency to receive this accreditation.

We delivered a secure technology infrastructure that allows citizens and tax professionals to interact with the IRS in real time and to conduct day-to-day business and solve tax problems on the Internet. The infrastructure is in place today. It is stable, it is secure, and it will serve as the cornerstone for successful deliveries of improved services in the future.

An enterprise management system was also delivered that allows IRS information technology professionals the ability to monitor this new infrastructure in real time and make corrections or preempt problems in real time.

We also implemented a bilingual customer communication technology upgrade which doubles the capacity of the IRS's ability to handle telephone calls at its call centers. It reduces wait times and helps taxpayers who are seeking assistance, as the Commissioner pointed out in his testimony.

We implemented the Internet Refund Fact of Filing, or "Where is my refund?" web-based application which provides taxpayers instantaneous status of a refund versus driving a large volume of inquiries into the phone system, causing delay and frustration for taxpayers. I would add here that the IRS website in the last week in July was 1 of the top 10 websites in terms of popularity or hits, and it was primarily this application that did that.

Added to this application in a very short 2-month period was the Advanced Child Tax Credit Initiative, which allows taxpayers to ascertain whether their tax credit is available to them. Taken together, these two applications since implementation have avoided over 24 million taxpayers from having to make a call to the IRS call center.

We implemented a laptop software tool that allows IRS agents to use modernized and sophisticated technology for the first time to do their work. This has resulted in faster resolution of cases and consistent treatment across all business taxpayers.

We implemented the Internet Employer Identification Number. This allowed over 450,000 applications to be processed over the Internet for new small business owners. As the Commissioner pointed out, we implemented seven e-services, web-based applications that have allowed 55,000 applications for Tax Identification Numbers (TIN) by tax preparers, 40,000 electronic return originators, 40,000 of them to register with the IRS, and in the first 24-hour period of an application for bulk TIN matching, over 425,000 transactions were completed.

This being said, there is more to do. We have near-term deliveries. The IFS, we have talked about here. We were enormously disappointed that we had to miss our commitment which we made to the Commissioner. We promised April and we will not be able to do that. The reason is that during final testing of this application, we encountered data conditions that were unknown to ourselves and to the IRS in the legacy systems. This makes—these data conditions, which had not been defined in our requirements or in the system design, require us to go back and do redesign and rebuild and retest the system, which will delay implementation until the end of the government fiscal year.

While I am not satisfied with having to delay IFS, we understand what caused these problems and we understand what we need to do to prevent them going forward. Additionally, I would add that CSC has stepped forward and offered to incur all the additional costs between April and October for IFS.

Modernized e-file is a contract that is outside of our PRIME contract but for which we do have responsibility for integrating that application onto the secure infrastructure and CADE Release 1. This is the all-important first step toward replacing the master file. We have had great recent progress and recently we have passed system integration testing, IRS user acceptance testing, and we have conducted a pilot for the 1040EZ release. We have added 2003



tax law changes to that system. Those changes are now undergoing testing, and we are planning any necessary 2004 changes so that we will be ready for the 2005 filing system to do a complete processing of 1040EZ.

Notwithstanding these accomplishments and imminent accomplishments and progress, we are not satisfied with our performance nor that of our alliance partners. Together with the Commissioner, we conducted several studies, as has been mentioned. One of those studies we commissioned ourselves and we asked Bain and Co. to perform that study to look at where we are having difficulties, and here is what Bain concluded.

First, that the IRS and CSC need to improve significantly the business requirements definition process. As the Commissioner pointed out, we can no longer allow new business requirements to be identified during the testing phases of a project. They must be identified at the front end of a project.

Second, both parties need to streamline the decisionmaking process. We must have a single source of decision making throughout the program. Consensus decisionmaking among many is not feasible for a program of this complexity.

Third, there must be an increased focus on business transformation, more business representation on project teams, and an increased role by the business in the requirements definition process and transition planning.

Last, we need to improve the accountability for ourselves and our PRIME Alliance partners. We have to hold ourselves accountable for our performance, and we do.

The CSC from the very top of our organization is committed to program success, and we will do whatever it takes to deliver. The SEI study stated, "Stay the course." I cannot agree more. While challenges lie ahead, I know the CSC team in place today can face those challenges. The IRS and CSC must leverage our past lessons learned and take advantage of our successes to improve the overall delivery, performance, and eliminate on-time, on-budget issues that persist.

The goal of CSC as the integrator for this important program is to deliver the best tax administration system to the American taxpayers. I am personally committed to achieve this goal in partnership with the IRS, Congress, and the various stakeholders. Thank you.

[The prepared statement of Mr. Cofoni follows:]

**Statement of Paul Cofoni, President Federal Sector, and Corporate Vice President, Computer Sciences Corporation, El Segundo, California**

Mr. Chairman, thank you for this opportunity to testify before the Ways and Means Subcommittee on Oversight. Over the past few years, the management and employees of Computer Science Corporation have appreciated the opportunity to work with the members of this committee and your staffs to advance the effort to modernize the Internal Revenue Service.

I am Paul Cofoni, President Federal Sector, and Corporate Vice President for Computer Sciences Corporation(CSC) headquartered in El Segundo, California. With approximately 92,000 employees worldwide, CSC is a world leader in helping our clients, both government and large business, use information technologies to achieve business objectives. These services include systems integration, consulting, and change management.

I am here today to provide you a status of the Business Systems Modernization Program at the Internal Revenue Service. Since December of 1998, we have led the

PRIME Alliance for the Internal Revenue Service. The PRIME Alliance includes some of the best names in the technology and business modernization world: SAIC, IBM, Unisys, Northrop-Grumman and BearingPoint. While there have been some difficulties with Business Systems Modernization or BSM as it is referred to, the PRIME Alliance, in partnership with the IRS, have created a strong program, architecture, and technology foundation for future success. But, before I talk about both the successes and difficulties at the program, I would like to touch briefly on the history of how we got to where we are today.

**Past Attempts at Modernization**—The IRS originally developed its database systems in the late 1950s and 1960s to capture, store, and process tax return and payment information. These systems, known as the “Master Files”, were developed largely on mainframe platforms that provided the requisite performance, capacity, and security. At the time, the IRS computer system was widely viewed as leading the world in the automation of tax collection. As the volume of data mushroomed over the succeeding decades and as federal statutes evolved concerning the privacy and nondisclosure of confidential taxpayer information, the IRS experienced greater difficulty in managing the data. The difficulty has intensified with the increased demand for online data to resolve taxpayer account issues, facilitate examination and collection, as well as provide for improved taxpayer service.

Two attempts to modernize the IRS technology base failed. During the 1970s, the IRS, limited by funding constraints, was only able to replace worn out computers. Because of the underlying architecture was so antiquated, it limited the IRS’s ability to access taxpayer account information. To overcome this shortcoming and to augment the delivery of taxpayer services and compliance functionality, the IRS developed stand-alone “stovepipe” systems with separate databases. While these systems provided some access to limited taxpayer account information, as the system evolved and more demands were made, the IRS experienced increasing difficulties synchronizing disparate stand-alone systems and databases. The IRS computing environment evolved into an extraordinarily complex array of legacy and stand-alone systems with respect to both connectivity and interoperability between the mainframe platforms and the plethora of distributed systems. Additionally, maintenance and annual updating of tax changes became increasingly more expensive and risky.

In 1983, Congress approved a comprehensive technology improvement plan, called Tax Systems Redesign (TSR). IRS haste to introduce new technology for the 1985 tax season was in large measure responsible for the first-ever filing season failure at a cost of \$15.5M in interest on delayed refunds. In response, Congress approved a sweeping Tax System Modernization (TSM) program that was projected to cost \$4B and was slated to be operational by 2000. The Treasury Department dismantled TSM in 1996 after repeated reviews by GAO and this committee pointed out that the program was not delivering any significant business and processing improvements.

**The PRIME Contract**—The 1998 Restructuring and Reform Act mandated that the IRS focus on serving the public and meeting taxpayer needs and paved the way for Business Systems Modernization (BSM). BSM is one of the largest civilian technology renovation programs ever to be undertaken. This modernization effort involves massive, long-term change for all IRS organizations and for taxpayers.

Shortly after passage of the Restructuring Act and after almost two years of competition, the IRS awarded the CSC PRIME Alliance team the Prime Systems Integration Services Contract (IRS PRIME) in December 1998. It is a 15-year, \$5B to \$7B, Indefinite Deliver, Indefinite Quantity (IDIQ) contract, where work to be performed is identified by task order and separately procured. Through December 2003, Congress has appropriated approximately \$1.35B for the BSM program. Of the \$1.35B, the IRS has funded CSC for approximately \$927M through 114 task orders and 1100 task order modifications.

CSC, in its role as the prime integrator (The PRIME) for Modernization:

- Provides program management, technical, and process infrastructure necessary to acquire and integrate business solutions into the evolving IRS operational environment;
- Assumes lead responsibility for maintaining the architecture and standards for Modernization, validating business requirements, reengineering business processes, preparing business cases, and developing alternative engineering solutions;
- Acquires, integrates, tests and deploys modernized systems together with organizational change activities, business user training and other support functions;
- Competitively selects best-value technology solutions that are derived from commercial best practices and custom-off-the shelf (COTS) products developed by our PRIME Alliance partners and other contractors;

- Uses its established commercial methodologies and best practices (Catalyst<sup>SM</sup>) and those of our partners to manage the contract and modernization efforts; and
- Also may provide post-production systems operation and maintenance (O&M) support to enable the IRS to leverage PRIME's expertise and procurement flexibility with the aim of enhancing the post-production Modernized environment.

**Business Systems Modernization Account**—To manage funding for modernization, Congress established the Business System Modernization Account and created several strong pre-conditions for the release of funds from the account. IRS was and continues to be required to undertake the following:

- Create and continuously implement an Enterprise Architecture (EA) that is an institutional blueprint defining how the IRS operates today, in both business and technology terms, and how it wants to operate in the future;
- Develop and follow a lifecycle management program;
- Acquire the services of a prime contractor to lead the system integration effort; and
- Submit to frequent, in-depth audits and reviews by the GAO, the Treasury Inspector General for Tax Administration (TIGTA), and the Office of Management and Budget (OMB).

As a consequence, unlike past efforts, every dollar expended under the BSM program must undergo one of the toughest oversight and compliance process in the Federal Government. These include stringent business case development, compliance with the program architecture, and the meeting of specific and defined milestones for each module of the overall program, before additional funds can be released from the account. While at times a burdensome and time-consuming process, it is the government's insurance policy that its investment will be spent wisely on technology solutions that deliver value to both the government and the American taxpayer.

**Significant Accomplishments**—As stated earlier, the PRIME Alliance and the IRS have delivered key program and technology foundational elements for the BSM program. Additionally, a number of business applications have provided significant business value to IRS employees and more importantly, the American taxpayer. I want to take a moment to summarize the joint accomplishments of the PRIME Alliance and the IRS since the inception of the program. Let me begin with the program foundational successes.

*Enterprise Architecture/Transition Strategy.* Building on the IRS-developed *Blueprint for Technology Modernization*, published in May 1997, CSC and the IRS jointly developed the Enterprise Architecture (EA) in January 2001. The EA is a business and technology blueprint that defines both the IRS future state and the approach to achieving it. This joint effort by CSC and the IRS has resulted in recent recognition. The EA received the Excellence in Architecture Award from the E-Gov, FCW Media Group and Federal Enterprise Architecture Certification Institute on 14 September 2003. Its companion document, the Enterprise Transition Strategy (ETS) provides the roadmap and schedule for implementing the components defined in the EA. The ETS is updated yearly in response to changing priorities and budgetary constraints, and provides CSC and the IRS with critical information for use in making business investment decisions.

*Enterprise Lifecycle Process.* A key foundation element for program success is the creation of a methodology, tailored to the environment and needs of the IRS, for implementing the EA. Using our own proprietary methodology, Catalyst<sup>SM</sup>, as the foundation, we worked with the IRS to create the Enterprise Lifecycle (ELC), an approach that integrates business and technical change in the IRS and is responsive to the IRS effort to simultaneously change its business enterprise and its IT systems. The ELC is mandated for all modernization projects.

*Software Acquisition Capability Maturity Model.* CSC adopted the Software Engineering Institute's (SEI) Software Acquisition Capability Maturity Model (SA CMM) as a program management model. Following deployment and internal benchmarking, CSC became the first organization in the world to be evaluated at Level 3 of the SA CMM. Leveraging this success, CSC assisted the IRS in preparing for its SA CMM evaluation. In December 2002, the IRS was evaluated at a Level 2, the first Federal civilian agency to achieve this level. All PRIME Alliance partners are required to be rated at Level 3 or higher of the SEI Software Development (SW) CMM.

*Security and Technology Infrastructure.* In May 2002, CSC deployed the Security and Technology Infrastructure Release (STIR) that provides a common, modernized IT infrastructure for secure interaction between employees, tax practitioners, and

taxpayers. With the need for an extraordinarily high level of security to protect the integrity of financial and taxpayer information, deploying modernized applications today and in the future is not possible without the STIR in place. This hugely complex firewall will enable the IRS to fulfill the congressional vision of “a customer focused IRS,” that can provide taxpayers with many self-help, Internet based options for dealing with a complicated tax system, while at the same time providing the highest level of security of confidential taxpayer information.

*Enterprise Systems Management.* Additionally, the PRIME has delivered a modern tool to assist the IRS in managing the health and security of the entire technology system. Enterprise Systems Management (ESM) capabilities provide an around-the-clock systems monitoring to the e-Business Modernization applications. The ESM foundation was laid for a centralized enterprise-wide management system that will identify in real time lapses in systems performance enabling the IRS to act immediately to provide high-availability of critical IRS taxpayer applications.

Let me now turn to the business solutions that have been implemented over the last three years that have provided real business value to the IRS and to taxpayers and third parties who interact with the IRS by telephone or through the Internet. These solutions not only provide improved services levels to taxpayers as desired by Congress but the solutions in place today can be leveraged in the future to continuously provide improvements to service levels faster and less costly. A clear example of how one application was leveraged to implement a program quickly and less costly was the Advanced Child Tax Credit legislation passed by Congress last summer. I will touch on this successful implementation later in my remarks.

*Customer Communications 2001.* This project improved the IRS’ telephony architecture by implementing intelligent call routing technologies. CC01 increased the number of taxpayers serviced through efficient call routing and shorter wait times to reach the appropriate customer service representatives (CSRs). CC01 also implemented voice recognition for English and Spanish callers and delivered telephony improvements that nearly double the capacity at the 25 IRS Call Centers from 800 to 1500 calls per hour. This improved capacity allowed the IRS to handle **46** million calls in four months during the 2003 tax-filing season. Approximately **84** percent calls were routed in fiscal year 2003. Today, the IRS is experiencing a 50 percent reduction in abandoned calls and wait time and the number of Spanish calls has doubled.

*Internet Refund Fact of Filing.* In 2002, we expanded the IRS’s customer communications capability when we deployed Internet Refund Fact of Filing, (IRFOF), a Web-based application that allows all taxpayers online access to account information and the ability to track the progress of their tax returns, including refunds. Performance of IRFOF has far surpassed original expectations. Two million hits per year were projected; IRFOF handled more than 15 million requests in its first tax-filing season, and 17.9 million requests in 2003. 32% of all refund inquires came through the IRFOF Web page. As I stated earlier as an example of how current applications can be leveraged, in July 2003, we leveraged the IRFOF application by implementing the Advance Child Tax Credit (ACTC) application. Built in 2.5 months, ACTC provided online access to tax credit payment status to about 26 million taxpayers and about 15.5 million inquiries have been received to date. This is a success story that received media attention on August 8, 2003 in **Government Computer News**. The Headline read . . . **Taxpayers rushing to IRS.gov** . . . Let me quote from the article because I really believe the article best described the business value of the solutions that CSC is delivering to the IRS and taxpayers.

*One of the most popular Web sites last week was not a sports or entertainment site, but—www.irs.gov. Eager taxpayers trying to determine how much and when they would receive their child tax credit checks swamped the site. The spike in traffic made the IRS one of the top 10 Internet sites for the week ending July 27, said Max Heineman, a spokesman for Internet traffic researcher Nielsen/NetRatings.*

*. . . About 9 million visitors used the IRS’ “Where’s my advance child tax credit” feature between July 14, when it went live, through yesterday, said IRS spokesman Tim Harms. “It’s as successful as the ‘Where’s my refund’ feature was last filing season,” he said*

*Customer Relationship Management Exam.* This project modernized policies, processes, and technology to enable faster case resolution and higher customer satisfaction. CRM Exam deployed an off-the-shelf case management and resolution tool, Bureau of National Affairs (BNA) Corporate Tax Audit Analyzer (CTAA). CRM Exam allows for highly complex tax computation automatically, thus increasing confidence in revenue agents’ data, while reducing exam time. The average time spent on tax computation was reduced from 53 to 17 hours, a 68% reduction. The project team

trained nearly 4,000 agents in the Large and Mid-Size Business (LMSB) operation in use of the application with a training approval rating from agents of 82%.

*Internet Employer Identification Numbers (I-EIN).* Deployed in April 2003, this project enables employers and tax practitioners to apply for and receive employer identification number online quickly and securely, and with less direct involvement by the IRS. I-EIN decreases taxpayer burden through 24-hour availability and elimination of paper forms. About 453,000 EIN applications have been processed since this functionality was implemented.

*e-services.* Delivered over the last 7 months, the **e-services** project offers a suite of Internet-based applications providing 7 distinct business capabilities to electronic return originators and third party practitioners. These capabilities will answer the needs of Electronic Return Originators (EROs) and third parties who interact with the IRS almost daily and who have demanded these real time paperless services for some time. Here are the new services that are now available. EROs can now register electronically to do business with the IRS as an ERO; they can now submit Power of Attorney applications electronically reducing the time to represent their clients before the IRS. The Transcript Delivery Service will provide real time electronic delivery of tax return and account information to tax practitioners and other third party users such as State and Federal agencies. e-services solutions also address recurring operational issues within the IRS, including lengthy cycle times and high percentage of rework, by making it easier for taxpayers and other entities to transact business with the IRS and by providing faster responses. Here is an example of how the new e-services functionality will streamline one area of operation of the IRS. Currently the IRS receives 1.4 Billion transactions each year with individual names linked to taxpayer identification numbers. Approximately 70 Million have errors. e-services will allow submitters to validate the tax ID number before submission, dramatically improving data quality.

**Near Term Deliverables**—During 2004, the PRIME Alliance and the IRS are going to deliver a number of important projects providing significant benefits to taxpayers and to the IRS in improving overall management of the financial area of the agency.

*Integrated Financial Systems.* When deployed, this project will be a key enabler to ensure that the IRS meets all internal and external requirements for management controls, performance measures, and financial reporting. The IFS will correct material deficiencies in current financial processes identified by GAO and will help the IRS to sustain an unqualified audit opinion on its consolidated financial statements and comply with legislative directives. The IFS provides for a single, integrated source for budget management, core accounting, and cost management data and provides a general ledger for custodial and administrative accounting. The IFS is based on an industry-standard COTS financial package (SAP) with tailoring (configuring of the package) to address unique Chief Financial Office (CFO) requirements. The initial release, including core financial and budgeting functionality is scheduled for delivery before October 2004.

*Modernized e-file.* Within the next few months, the IRS will be able to receive corporate tax returns and information returns electronically. This important step will help move the IRS closer to the 80 percent goal for electronically filed returns while promoting error-free filing and immediate access to return information for use by taxpayers and the IRS. While CSC was not the integrator for this project, this solution will run on the infrastructure platform built by CSC and the functionality from one of the e-services applications delivered by CSC will become a key component of this project.

**Customer Accounts Data Engine**—The Customer Account Data Engine (CADE) is regarded as the most critical building blocks in the entire BSM program. CADE will replace the 35 year-old master file system that contains the authoritative record of all taxpayer accounts. The current system is extremely large and in constant use. It requires approximately 13 terabytes of mass storage and during a peak week performs 28 million transactions. CADE will replace the existing system with new technology, new applications, and new databases to provide IRS employees with real-time, electronic access to all aspects of a taxpayer record within mandated requirements for the security and privacy of taxpayer data. Once fully operational, taxpayers will see real benefits as well. Today's system is designed to process return data in a weekly cycle; the new system will reduce the cycle time from one week to one day, thus allowing faster refunds to taxpayers and also making taxpayer return information available sooner. This will be extremely important as the IRS moves closer to a self service strategy for taxpayers, tax practitioners and other third parties.

Where are we today with CADE implementation? That first release of CADE was completed in early January 2004, which I consider a major milestone for this pro-

gram. This milestone represents a lot of hard work and dedication by the joint IRS/CSC PRIME team to make this event a reality.

Many of you, I know, have read press accounts around the delays in delivering CADE. As I have said before, CSC takes full responsibility for its share of the delay in completing the first release of CADE. We at CSC did not understand the complexity of the current systems environment; nor did we understand what it would take to build a new data base platform for the IRS. But let me say now, however, that in my 30 years of working in the technology field, I have never encountered any program of the size and complexity as the business systems modernization program at the IRS.

To put this program in its proper perspective: a 60's system, largest data base of its kind (150 million taxpayers), \$2 trillion payments processed annually, about 250,000 business rules (about 50,000 business rules around the first release of CADE), intense security requirements, 60 million phone calls received annually during the filing season, and added complexity of writing software that will allow the IRS to operate both systems simultaneously during the transition period.

Can you think of any organization in the world that would match the size and complexity of the IRS? I cannot.

With the first release of CADE complete, we are now on a path to complete the next release by mid 2004 and during the 2005 filing season, the Customer Account Data Engine will process the first 1040EZ returns filed by over 6 to 7 million taxpayers.

#### **Schedule and Budget Problems**

While the program has experienced delivery issues with schedule and cost, I believe that the program is on a path that will demonstrate substantial improvement in delivery performance in the near future. Let me tell you why I believe this to be true. The top leadership at CSC and the IRS are committed and focused on building a business systems program second to none. Over the last several months, CSC and IRS senior executive leadership now meet regularly to discuss program performance. Mike Laphen, our COO and Commissioner Everson meet monthly and those meetings have resulted in discussions around the issues that impede progress on the program and reaching agreement on the steps needed to continue the momentum that the program has experienced. And every two weeks I, along with the CSC General Manager of the Program, Jim Sheaffer, meet with John Dalrymple the Deputy Commissioner for Operations Support, Todd Grams, the CIO and Fred Forman, Associate Commissioner, Business Systems Modernization, to discuss project status along with other critical issues around the program. Additionally, we have begun a process of co-locating CSC and IRS executives to improve communications and to create a closer working relationship, characteristics so important to successful implementation of a program of this size and complexity.

Since July 2003 a number of external studies of the program have been conducted at the request of Commissioner Everson and our COO, Mike Laphen. Soon after his appointment, Commissioner Everson engaged Carnegie Mellon University, Software Engineering Institute (SEI) to perform a "health check" on the proposed use of the Sapiens eMerge business rules engine for the CADE project as well as to conduct a full Independent Technical Assessment of the CADE program. Such assessments are conducted in response to cost, schedule and performance problems.

Principal findings of the SEI report concluded that the PRIME now has the technical and management talent to deliver the first release of CADE. That finding has become a reality as the first release was completed in early January, as I stated in my earlier remarks around the CADE project. Another principal finding was that the business rules approach executed by CSC PRIME is conceptually sound but that the technology needs further evaluation. The evaluation process for business rules has already begun.

To put the accounts of schedule and cost slippages into perspective, I want to take a moment to make you aware of a key point made in the SEI report around the complexity of the first release of CADE. The report observed that CADE was "in uncharted waters" for the IRS/PRIME team. Moreover, the report stated that:

"Early in the assessment, both the PRIME and the IRS asserted that Release 1 was the "simplest of releases—just the 1040EZ . . . the 'it's the easy release' public face undermined the ability of stakeholders, including Congress, to grasp the complexity of the release, where approximately 85% of the code is CADE infrastructure, with the remaining 15% related to the 1040EZ business rules. A better approach would have been to publicize Release 1 as the foundation for CADE to better set stakeholder expectations."

I think this independent observation by SEI is an important lesson for both CSC and the IRS. The lesson for me is that all of us connected with the program must convey the "right" message to our stakeholders about the business of modernizing the IRS. We obviously have not done that in the case of the CADE project.

At the same time as the SEI assessment was underway, my COO made the decision to invest in an outside study to evaluate the program with a focus on the significant inhibitors to on-time and on-budget performances, and to make recommendations on what we can do to improve overall delivery performance. Bain and Company was selected to perform this analysis.

Bain and Company identified two primary drivers for the problems around on-time and on-budget performance: loosely defined requirements and under performing execution of the projects. Their review concluded that significant changes are needed to successfully deliver business systems modernization to the IRS. First, we must improve significantly the business requirements definition process. We can no longer wait until a project is in the testing phases of a project to identify a new business requirement. Second, both CSC and the IRS must streamline the decision-making process and authority. The program needs a single source for decision-making; consensus decision-making among many is not feasible for a program of this complexity. Third, both parties must have an increased focus on business transformation, including more business representation on project teams, and an increased role by the business in requirements definition and transition planning. Lastly, improvement in subcontractor accountability and delivery is essential for success. We must hold our subcontractors accountable for excellent performance.

In late October 2003, Commissioner Everson and COO Mike Laphen initiated 46 action plans to address the findings of these studies over a period of six months. Senior executives from the IRS and CSC are leading the work around these action plans and as of today, work has been completed on almost two-thirds of the actions. The IRS Oversight Board issued an independent report in late December and the principal recommendations in that report are covered by the joint IRS/CSC action plan work.

#### **Closing Remarks**

In closing, the IRS Modernization Program is at the top of my company's watch list of projects. Our CEO is briefed periodically on the progress we make in modernizing the IRS as well as the challenges we face in delivery performance. COO Mike Laphen, Jim Sheaffer, the General Manager, and myself are personally committed to program success and we will do what it takes to deliver. One study, SEI, stated, "stay the course." I cannot agree more. We have made significant progress over the last 6 months. The fact is we have delivered significant business value to our American taxpayers and to the IRS. The infrastructure that we have built is stable and secure and will serve as a cornerstone for future successful deliveries of improved services. We have created a solid management process foundation, and we have delivered a number of applications that ease the burden of taxpayers and third parties who interact with the IRS by telephone and through the Internet. While I know that more challenges lie ahead, I also know that the CSC team in place can successfully meet those challenges. The IRS and CSC must now leverage our past experiences with modernization and continue the commitment to work together in partnership and trust (and I cannot emphasize enough the importance of partnership and trust) to improve overall delivery performance and to eliminate on-time and on-budget issues. The goal of CSC, as the integrator for this important program, is to deliver the best tax administration system to the American taxpayers. I am committed to achieve this goal in partnership with the IRS and Congress and our various external stakeholders.

Mr. Chairman, I thank you for the opportunity to appear today before you and your subcommittee and I will be happy to answer any questions.

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Chairman HOUGHTON. Thank you very much, Mr. Cofoni. I am just going to ask a question, and then I will turn it over to you, Earl and Rob.

I thank you very much for your testimony. Let me just direct this to you, Mr. Cofoni. You have got a great company, and you have done a lot of things right. At the same time, we are responsible for people and their money and the investment of the tax dollars. The bottom line is that we haven't met the mark. We can't manage this.

We are the distributors of funds to the IRS, but we have got to have oversight and confidence that this is going well.

It seems to me that there is such a difference between your testimony and that of some of the others. Tell me, why is this difference there?

Mr. COFONI. I don't think there is a fundamental difference. I think we are proud of the accomplishments that our people have made and our alliance partners have made, and I wanted to make sure that we articulated those for you today to make sure you had a balanced view. We accept responsibility and accountability for the slippages in the case of both CADE and now IFS. By the way, of all the five projects that are being discussed, three of those fall under my contract, our contract.

For the two, CADE and IFS, we have stepped up and we have taken the responsibility for cost overruns. We did that for CADE a year and a half ago and we did that just recently when we announced the IFS overrun. So, we recognize that these are problems, we have taken aggressive action based on the studies that have been done, and we will continue to take actions to improve.

There is no escaping the fact that we are not proud of our performance on the program in terms of cost and schedule. We are quite proud of the deliveries, the quality of those deliveries, the acceptance within the IRS and by taxpayers of those deliveries.

Chairman HOUGHTON. I think when a contractor takes on a job, it writes its name in blood on this thing.

Mr. COFONI. That is true.

Chairman HOUGHTON. This is what we are going to do, and if we don't do it, it is our fault. If we don't do it, you have got to have an interaction between the people who you are working for and you have got to anticipate and make tough demands. If this isn't working, we are going to do this, and if that isn't right, we can't do the work at all.

I don't see that. I see it has been bubbling and bubbling and bubbling along, and all of a sudden, there is disenchantment within the system and it is laid on your doorstep and really, in effect, you are the fellow that is responsible.

Mr. COFONI. Yes, sir. I accept that criticism, and we have put some new stakes in the ground. We are not going to start new work before the requirements are fully defined in detail. That has been at the heart of our problems. The core problems underlying these overruns have to do with unknown requirements and unknown data conditions. There are other contributors, as well. I don't mean to single only those, but those are the core.

We have rededicated ourselves to not go forward. We will not take work if we don't have requirements defined well in advance. We will walk away from that work.

Chairman HOUGHTON. That is ex post facto. What about a year ago?

Mr. COFONI. I think a year ago, our people were trying to do what they believe was in the best interests of the IRS. If we didn't feel we understood all of the requirements, we moved forward in any—we moved forward. We moved forward with the feeling that we were doing the right thing for the IRS. As it has turned out, this was not the right thing. The right thing would have been to



have stopped work at that point, not be so accommodating, and demand that we had a detailed sense of requirements, that we put our absolute best people into the requirements process collectively and drove those out.

I will add, however, even after doing that, these are 40-year-old systems. When I ask my people about the documentation, they laugh. The documentation is not there on these systems. So, in many cases, our requirements, defining the requirements that are embedded in the existing systems is like an archaeological dig. We have to strengthen our interrogation processes and our research processes to get at a great percentage. I think we will always need a reserve against those unknown conditions that no one seems to have—

Chairman HOUGHTON. Rather than laughing, did you point this thing out to the people in the system?

Mr. COFONI. Oh, of course. They take this seriously. This reflects on their personal performance, their careers. They are in most cases working 6 and 7 days a week, 60 hours or more, 100 percent committed to the effort, but we have them in a very difficult—

Chairman HOUGHTON. Well, look, we will have a chance to kick this around and get the opinions of other people on the panel. I would like to ask Mr. Pomeroy to take over here.

Mr. POMEROY. Mr. Dacey, I think I will ask my first question to you. In looking at a table of cost overruns, it appears that the magnitude of what we are talking about is cost overruns of \$290 million, a cumulative delay in terms of deadlines blown of 83.5 months. Now, that is taking specific programs and adding them together, but does that sound about right in terms of what you have been able to see with this project?

Mr. DACEY. Yes. The table in our testimony is two parts, first of all, the completed projects, which we talked about earlier today, as well as the ongoing projects. It doesn't count some of the other efforts that were taking place in prior years for which those projects have been deferred or delayed for the future.

So, with respect to our table, this does represent the overruns for those projects, but again, there are other projects that aren't on this table that have been part of the earlier parts of BSM.

Mr. POMEROY. So, as bad as this is, if you go back in time just a bit, it gets worse?

Mr. DACEY. Well, there are other costs in there and we haven't analyzed the overruns, but in going through this process, we had made recommendations consistently that they needed to balance the pace of these projects with their capability to manage them. As part—

Mr. POMEROY. Thank you. I am sorry, I didn't mean to cut you off, I just have—I want to use my time as well as I can here.

Mr. Levitan, you have brought a career's worth of experience in consulting, looking at relationships between enterprises and their consultants, looking at consultant contributions to major project upgrades within enterprises. Based upon the wealth of experience you bring to the Oversight Board, how would you describe this particular project, as way off, really horrible, missed the mark a bit? Where in the spectrum are we?

Mr. LEVITAN. First of all, it is a very, very difficult program, but that doesn't make excuses. We have missed the mark significantly. The IRS has missed the mark in managing the program. The PRIME contractors have missed the mark both in delivering results based on commitments for target dates and costs and also in their responsibilities to be a trusted partner and advisor to the IRS and help the IRS in an effective way in managing the programs. It has been a significant miss on all accounts.

Mr. POMEROY. I appreciate that comment. I do think it is important that we underscore the scale of what we are talking about. Some of the discussion sounds like an unsatisfactory performance review that might be conducted within the norms of business operations, but I believe missing the mark by \$290 million, the delays, the insufficiency of meeting the deadlines is really of a stunning magnitude. If this does not provide some breach in the trusted relationship between contractor and the IRS, I wouldn't know what was. Certainly looking at it from the generalist perspective of a Subcommittee on Oversight Member, I am stunned by what I am seeing here, and I am deeply alarmed about it.

Mr. Palmquist, some of your evaluation is that the technical expertise with the contractor wasn't quite where it needed to be to get this job done, if I understand your testimony correctly.

Mr. PALMQUIST. Yes. We had questions about, say, things like the testing process which the Department of Treasury Inspector General also had questions with. Frequently, testing was not coordinated, say, between CSC and IBM, where they may both be looking at the same defect, both approaching a solution, but not in a coordinated fashion. So, they may both, in fact, be correcting the same thing, and then those corrections may not sync up later on. So, in many cases, it was not coordinated on a technical side.

Mr. POMEROY. If I understand correctly, in order to make certain that you have got sufficient horsepower in your contract, in this case, there is a benchmark that they need to make, a capability maturity model (CMM) certification. Is that correct? Is that what this is geared toward?

Mr. PALMQUIST. We have several CMMs, the software acquisition CMM that Mr. Cofoni spoke about, as well as the software development CMM. The CMM is only part of the solution, to take the SEI itself as an example. The SEI has four initiatives—process is one of them. The other ones are architecture, security, and performance critical systems. Processes in and of themselves don't result in a defined product, as I stated in my testimony. Sometimes these processes were not backed up by sufficient technical experience or expertise, and that was one of the areas where we found some lacking.

Mr. POMEROY. So, is CMM a process evaluation or does it also include personnel and their competence?

Mr. PALMQUIST. It is an evaluation of processes.

Mr. POMEROY. Although Mr. Cofoni notes that they are the first to obtain the Level 3 certification for processes under the CMM, I would note that you just got it last August when under the contract you were supposed to have it July 1, 1999, 4 years earlier. To this point, Mr. Cofoni, did you receive any financial penalty for

being 4 years late in having your system certified as required under the contract?

Mr. COFONI. No, sir.

Mr. POMEROY. I am interested in what is the manner of financial penalties you have received for failing to meet performance, for contractual commitments.

Mr. COFONI. We have, since 18 months ago, some 18 months ago, been paying for all of the work being done on CADE. All of our costs and our PRIME Alliance partners' costs have been paid for by our company.

Mr. POMEROY. What have you been compensated in cost overruns under your contractual relationship with IRS, do you know?

Mr. COFONI. I don't have that. About four—

Mr. POMEROY. It was cost overruns of \$290 million, and you having the, certainly the lion's share of the relationship, I would expect most of the compensation under the cost overruns has come to your firm, correct?

Mr. COFONI. That is correct for those projects on the list that are within the scope of the PRIME contract, which are the ones—I don't have the list in front of me—so the ones that are active projects today are e-services, which we just concluded, IFS, and CADE. The others, I don't have the table that you are referring to so I am a little disadvantaged, but—

Mr. POMEROY. While your people review that, I have got another question that actually you may find more agreeable. You indicate that under this contract, you have discharged 114 task orders and 1,100 task order modifications. Now, are those essentially change orders?

Mr. COFONI. Yes.

Mr. POMEROY. That you are getting from IRS?

Mr. COFONI. Yes.

Mr. POMEROY. The IRS is not represented here, but someone looking over this, either Mr. Dacey or any of the other three of you, are these change orders driven by legislative changes that Congress keeps passing so that the target keeps moving of what we are trying to get the system to do, or is it simply a very, very poorly commenced project?

Mr. LEVITAN. Mr. Pomeroy, let me respond to that. The change orders are many different things. Some of them are legislative in nature. Others are that the IRS did a poor job in defining their requirements in the beginning and then their processes of controlling the change orders was not very effective. They are trying to address that now by the organizational changes that the Commissioner described previously, putting Mr. Dalrymple in charge of managing that process.

Again, many of those change orders, I would say the majority of them were initiated by the IRS. Some of them were absolutely necessary. Some should have been caught much earlier. I would say that the issue there rests primarily with the IRS, not with the contractor.

Mr. POMEROY. Is there a broader lesson to be drawn from this? As we outsource, we absolutely must retain within the staff structure of the government agency doing the outsourcing sufficient

technical competence to adequately engage and oversee the contractor?

Mr. LEVITAN. You are absolutely correct. It is not just technical competence. Even more importantly than that, it is the project management competence. Quite honestly, the Board has been telling the IRS that its own capabilities to manage the program and oversee the contractors has been inadequate. They have been very slow to move on that and make the necessary improvements. Again, steps are underway at the present time to bring in additional resources to help accomplish that.

Mr. POMEROY. A final focused question, Mr. Chairman. Thank you for your leave here. Mr. Cofoni, you indicate in your testimony you have 92,000 employees worldwide. Is this work being done in-country?

Mr. COFONI. All of the work for the IRS is being done in-country, principally done in Maryland in our New Carrollton facility across the street from the IRS facility.

Mr. POMEROY. Thank you.

Chairman HOUGHTON. Thank you. Mr. Portman?

Mr. PORTMAN. Thank you, Mr. Chairman, and thank you, gentlemen, for your testimony this morning. I started off my last comments saying here we are again, and it really is frustrating for all of us to once again be in a situation where we are partway through a business modernization process, in the case of the important work on CADE and important work on the IFS. We were hoping to get IFS done early this spring, hoping to get CADE done back in year-end 2002, I believe, and yet we are reaching to try to get those done this year. So, the question is, how do we keep the momentum going toward a deliverable here, at the same time being sure that the problems we have encountered are handled properly.

The first question I am going to ask is to the entire panel except for Mr. Cofoni, which is should we change PRIMEs at this point? Are we at the point where, again, despite the fact that at least in a couple of these deliverables we are close, we hope, to accomplishment, have we had enough problems here in terms of the cost overruns, in terms of the delays, that we should change the PRIME? Mr. Levitan, I will put you on the spot.

Mr. LEVITAN. Mr. Portman, I am going to have to come back at you. The RRA 1998 specifically precluded the Board from getting involved in procurement activities. Our legal counsel has told us that advising the IRS to fire a contractor would be getting ourselves involved in that.

We have been very strong in saying that the IRS needs to look at all options in strengthening the team to get done what needs to get done, and we feel very strongly about that. We are precluded from making a recommendation to fire anybody.

Mr. PORTMAN. I have to respect your inability to get involved in procurement, since those of us on this panel were part of establishing that and I think that was appropriate. I am not sure that it is fair to say that we didn't view the Board's authority to include looking at a big picture issue like this and telling us what direction we ought to take, so perhaps we could differ on whether this is a procurement issue or whether it is a recommendation of the Board

on a major modernization project, but I won't put you on the spot any further, at least not in public testimony.

Mr. LEVITAN. Just let me go one step further. I think that looking at this issue is not a black and white issue.

Mr. PORTMAN. I couldn't agree more.

Mr. LEVITAN. It is not a "keep going with everybody doing what they have been doing," or "fire the contractors and start all over again."

Mr. PORTMAN. Yes. There is plenty of blame to go around.

Mr. LEVITAN. There are a myriad of options.

Mr. PORTMAN. Part of the blame rests right here, I believe, in Congress, because we have not been perhaps as good at oversight as we should have been over the last few years in following this, being sure the requirements were appropriate, being sure there weren't over-promises, being sure that the IRS had the management systems. There is certainly blame at the IRS and I think you, Mr. Palmquist and Mr. Dacey, have all outlined that. I think Mr. Pomeroy just referenced one, which is lack of expertise both on management and with regard to technical expertise.

I still pose that question. I am not suggesting it is black or white, but I do think that is something that as a fiduciary, being a Member of Congress representing a lot of people who pay taxes, some of which have now been used for a program that has had huge cost overruns, I think it is an appropriate question to ask. Mr. Palmquist, could you answer my question?

Mr. PALMQUIST. Congressman, we, as a federally funded research and development center, are also prohibited from making direct source selection decisions, but we do, in fact provide counsel. We did provide Commissioner Everson our thoughts in general on a replacement of a PRIME contractor on a contract of this nature and magnitude. The fact is, unfortunately in the state of affairs today, many programs, with many different PRIMES, are experiencing similar problems. In other words, a new PRIME is not necessarily going to change a program radically. Also, a change in PRIME at this juncture would result in a tremendous loss of experience that has been gained, some good experience, some bad experience.

So, while we did not and cannot directly advise that, we did tell Commissioner Everson that there are a good number of issues that would come up in the change of the PRIME. We felt it would be a setback in the program of several years.

Mr. PORTMAN. I won't attempt to paraphrase what you just said, but it sounds like what you are saying is you identified problems, again, that can be shared, but certainly with the contractor, and yet you believe from your experience with other agencies and departments that these problems are not unique to the IRS. You are not sure there is another PRIME out there that has done much better, and that you believe that given their experience, it would be a mistake at this point for them to pull this contractor.

Mr. PALMQUIST. Again, sir, without directly making a comment that would directly affect the source selection decision that this would be, we see a lot of benefit in staying the course. We also do see benefit in a change. We see a lot of evidence indicating that the

team that is in place is a capable team, and if corrections are made, can, in fact, deliver for the IRS.

Mr. PORTMAN. Mr. Dacey?

Mr. DACEY. In terms of—

Mr. PORTMAN. You are not constrained by any of these procurement issues, I know.

[Laughter.]

Mr. DACEY. No, but I won't be making a recommendation today either on that account. I think the issues raised are valid, and certainly SEI in their report raised a number of the issues that would have to be considered. Certainly Commissioner Everson this morning had indicated an approach to moving some of the other contracts away to potentially other contractors until it can be demonstrated that CSC can carry out the current contracts, and I think those are all valid considerations.

I think the other issue, too, which hasn't been highlighted yet is that a lot of the issues are going to need to be resolved by IRS itself and switching contractors isn't going to fix that. So, there is a heavy amount of effort that I think IRS needs to accomplish, and they have set about doing that would have to be done regardless of the PRIME.

So, I think there are just a lot of issues there. Again, I don't have a bottom-line analysis. I won't give one today. We haven't studied it in any great detail, but there are substantial issues that would need to be addressed and considered before any consideration like that were made.

I would highlight, too, that the Commissioner's announcement of looking to other contractors is, from a personal standpoint, a little bit of competition, which is healthy in that regard. I would, however, warn that it would be important to make sure that those efforts, to the extent that they interact with the systems that are being developed by CSC, are well coordinated and also reiterate our concern which we have made for several years that IRS needs to have the internal capacities and management capabilities to manage the contracts, whether it be by PRIME or someone else.

So, simply taking that to another contractor may not be the full solution. The IRS really needs to make sure they have got their house in order and don't take on too many projects that exceed their capabilities.

Mr. PORTMAN. My time is ending and I wish I had much more time, but let me just, if I could, ask another general question, Mr. Chairman, with your leave. Mr. Cofoni, would you like to comment on any of the other three comments?

Mr. COFONI. No, thank you.

Mr. PORTMAN. I don't want to put you in that position if you are not comfortable.

Mr. COFONI. We do feel that the right thing for the government and the IRS, and this will sound self-serving, but we honestly believe that the body of knowledge we have accumulated in the last 4 years has enormous value to us going forward, so we would obviously—we would like to continue.

Mr. PORTMAN. It seems to me that, Mr. Levitan, you are somewhat optimistic about IRS making some of the changes that Mr. Dacey just outlined and that, in fact, you think some of those

changes have been made even in the short term. Certainly the announcement today that the Commissioner is looking to other contractors for some of the other projects would be consistent with the general advice that the Oversight Board has given. You have also, though, given some very specific advice on limiting these projects, in fact, even postponing some, focusing on, it seems to me, some of the more important ones. Do you think the IRS is making progress, and then let me ask a general question of the whole panel.

One of my concerns about this process of contracting on information technology is that it seems to me when you go through the request for proposal process, which is where these companies are competing for this business, that there is often an issue with requirements. As we have said, the IRS did not perhaps spell out the requirements and some of the data surprises may relate to that. Also in the nature of competition, there is over-promising.

I would just like to get, once Mr. Levitan has a chance to answer that earlier question, just a general sense, because this is important going forward, how much of it is due to the requirements not being spelled out properly and true surprises, to the extent those can be identified as separate from what should have been in the requirements, and how much of it is just contractors want this business so they make promises they can't keep. Once they get halfway or two-thirds of the way through the project, it is their project, understanding that on IFS, Mr. Cofoni, you are willing to pick up some of these costs yourself. That is just a general question that I have about this that I think is relevant going forward. Mr. Levitan?

Mr. LEVITAN. As I mentioned, the project fell in a ditch this summer. I was very impressed with the way the Commissioner reacted to that and the way he stepped back and said we have got to do a thorough study, we have got to put in a plan of improvement.

Going back to our nine specific recommendations, eight of which had nothing really to do with the PRIME, we have seen some significant progress on that. Business unit management of the program is well underway. Putting John Dalrymple in charge of that for the IRS is a very positive step.

Creating an environment of trust and confidence and teamwork is another responsibility of the Deputy Commissioner. That is going to take time because it is a cultural issue, and even the very—and what I am talking about here is the various units of the IRS working together in an effective and trusting way. That, I think, is starting to happen. It needs a lot more work.

They have made changes to the systems development life cycle to make it more effective and putting in place steps to make sure that they are following that, which they didn't always do in the past. The contracting process continues to be an issue and needs a lot more work.

The experience of the IRS management team is very important. They have started searches for people to bring in and strengthen that team. They are doing the right thing, but that effort is moving glacially slow and needs to be moved ahead much more quickly.

So, I think a lot of the right steps are underway. They are just underway and will require a lot more work to really put them in the position that they need to be in to manage the program and work with the PRIME in an effective manner.

Mr. PORTMAN. I know you will continue your oversight to make sure that happens, Mr. Levitan. We appreciate what the Board does and your expertise.

On that general question, are there any comments? My time is ending here, so you will have to be brief. Mr. Dacey, you have got some experience with this.

Mr. DACEY. In terms of the issues in going forward, again, there are a number of challenges. I think that the recommendations that were contained in this number of studies were good things, and I think IRS's intent to continue to use outside folks with expertise to help look at their processes in carrying those forward is another important element. These studies, which were commissioned in 2003, were fairly extensive relative to the work that had been done before from an outside viewpoint, and I think continuing that is a very positive thing, to keep watching the process as it goes forward and keep seeing if it is progressing as IRS plans.

Mr. PORTMAN. Mr. Palmquist?

Mr. PALMQUIST. Yes, just to echo, the improvement effort itself needs to be treated as a project. It needs to be planned. It needs to be budgeted quite honestly and monitored. It can't be assumed to happen just by good intent. It needs to be its own separate effort.

Mr. PORTMAN. I thank my colleagues for their deference.

Chairman HOUGHTON. Thank you. Mr. Weller?

Mr. WELLER. Thank you, Mr. Chairman. I appreciate this opportunity. I direct my question to Mr. Palmquist, Mr. Levitan, and Mr. Dacey, if each of you would respond. In its report, the SEI identified two cases where the primary contractor, Mr. Cofoni's company, attempted to develop software in-house instead of acquiring it from companies with expertise. These decisions later proved to be costly. I was wondering, what would you recommend to avoid a recurrence of this kind of decision making?

Mr. PALMQUIST. Congressman Weller, I assume you are talking about TRW and also to the first attempt at a business rules engine. The business rules engine effort that failed in early 2001 turned out to be—we did not investigate this extensively—but turned out to be a combination of business factors that simply weren't understood at the time and, also I think, requirements. The effort to use TRW to do the legacy to the computer—excuse me, the interface to the legacy environment—we understand that the proposal that was delivered did not meet the schedule as envisioned and, therefore, was not accepted. In retrospect, that appears to have been a decision that cost the program.

The CSC has worked to invigorate their development environment. The use of the business rules engine is part of that, but the development environment does need to—is improving, but does have some issues still remaining, again, with respect to the testing element, and contract and requirements management.

Mr. WELLER. Mr. Dacey or Mr. Levitan, do you have a comment, please?



Mr. DACEY. Again, we haven't done a significant analysis of those particular issues that were just discussed, but I would like to say that it is important to have appropriate amounts of information when these decisions are made, as the TRW example, I believe, was a situation where there was, I think, an overly optimistic expectation of when this software would be delivered and the decision was made, well, TRW can't deliver in that timeframe. As it turns out, it has taken much longer to develop the product, and as was just mentioned, had that been known in the beginning, it could have been factored in most likely.

So, I think the key gets back to fixing some of these fundamental issues of understanding the projects and coming up with reasonable cost estimates and processes that will yield those. I do think, as said before and we have said before, there have been overly optimistic expectations, too, in setting these up, as well as the issues having to do with some of the other problems that have delayed it, like system requirement understanding and things of that nature.

Mr. WELLER. Thank you. Mr. Levitan?

Mr. LEVITAN. Systems projects fail or have significant overruns for one or a combination of three reasons. Number one is we don't have the appropriate methodology. In this particular case, we had a pretty good methodology, but it needed some improvements. Those improvements have now been made, positive factor.

The second reason projects run into trouble is the project teams just don't follow the methodology. They try to take shortcuts. That was done over and over again in this particular case. We now have a commitment that that will not happen again, that we will have the appropriate discipline and management. That is yet to be proven, needs to be monitored very carefully.

The third factor is the skills, capability, and experience of the people who are actually doing the work. We think that that has been demonstrated, that that has been inadequate and has not been fulfilled and that is still to be proven going forward, and we are very concerned about that.

Mr. WELLER. Thank you. Mr. Cofoni, I hope you respect my questioning. I am one of those who believes in giving the private sector the opportunity to participate and contribute because I believe there are efficiencies in the private sector, so I hope you realize my questioning was friendly regarding that particular issue.

The other question I would like to direct to you, Mr. Cofoni, and you have already addressed part of it, you indicated the earlier issue of off-shoring of various types of government contracting jobs, that potential, and I know you answered earlier that you have no workers outside the United States performing any work for this IRS contract. Are you aware of any subcontractors or any other contractors to the IRS that have that work performed offshore?

Mr. COFONI. No, sir. All of the work we are doing and our PRIME Alliance team members are doing under this contract is being performed within the United States.

Mr. WELLER. Okay. Mr. Levitan and Mr. Dacey, from your perspective, there has been some concern that I have heard from constituents that I have that there is potential that tax preparers may be using workers outside of the United States to do tax preparation work and their concern is there is personal security, their privacy

regarding someone who may have access to their personal data when it comes to tax preparation.

Number one, are you aware of any tax preparation firms that today are using workers outside of the United States to do tax preparation work, and then from your perspective, are there any personal security concerns that we should be aware of or sensitive to?

Mr. LEVITAN. Mr. Weller, the Board has not looked into that issue so we really don't know the answer to that. It obviously is a concern and could be a concern and deserves looking into, but we have no knowledge of this at the present time.

Mr. WELLER. Okay. Mr. Dacey?

Mr. DACEY. I would echo Mr. Levitan's comments. We also have not done any work in that area to look at it. I am not familiar with those tax practices necessarily, but it is an issue that does need to be considered, I think, as well.

Mr. WELLER. Thank you. Thank you, Mr. Chairman.

Chairman HOUGHTON. One of the things that I guess baffles me is that here we are. We are the Subcommittee on Oversight, and we can't get into the management here. We can ask questions. We can make suggestions. We can, I suppose, hold up money for the IRS, but that is a tough issue because it is such a vast operation, and in general, they are doing a great job.

The Oversight Board that you are in charge of, isn't that part of management? You can make some recommendations, but you don't really get into the works. Carnegie Mellon and Mr. Dacey, you can do analysis. You can help, but you are not really in there.

I would like to ask you, Mr. Cofoni, not trying to pin the tail on you or your excellent organization, at what time do you cancel the contract with a PRIME contractor? What prompts you to do that?

Mr. COFONI. I would say certainly if we don't take the recommendations that have come from these studies that are root cause analysis and corrective actions, if we don't implement those actions and see improvement, then that would be a cause. If we don't deliver the end products of CADE and IFS, it seems to me those would be indicators. We are committed to doing all those things.

Chairman HOUGHTON. At what point would you go to the Commissioner and say, it is impossible for us to operate here. The conditions are such that we cannot do the work which you expect of us and therefore we want to resign our contract.

Mr. COFONI. We have begun to take positions—in the past—I want to correct a possible perception that we might take, continue doing work for revenue purposes. In all cases where we continued doing work before having a good set of requirements, it was with the best interests of the IRS at heart, people trying to be accommodating, trying to meet commitments, schedules that were necessary for internal performance or commitments externally.

So—but we have had a bit of an epiphany. We really understand we can no longer do that, and we have put a stake in the ground and we have stopped work on projects when we thought we didn't have the right prerequisites to do a quality job. That is going to be the new pattern and that will be our behavior going forward.

So, at what point, it is going to be at the point where we don't have clearly defined, detailed requirements, and it is okay. If we together don't understand what they are, then we should continue to explore, and if at the end of exploring we are still not convinced we know what they are, then we need to provide adequate reserve to deal with the unknown unknowns. So, I would say if we don't have detailed requirements, we are not going to go forward on any new work.

Chairman HOUGHTON. When you deal with a consultant or with anyone from outside your shop and you buildup a body of knowledge, it is very difficult to cut the string because it is expensive, there is lack of education and personal contacts and things like that. Yet at the same time, it is important to look very firmly at whether people are doing the right job.

Equally important as what a contractor has done, and we have touched on this all along, is what happens inside the shop. Mr. Levitan, you said that there is glacial progress as far as management getting a hold of this thing and squeezing it. Break it down a little bit, will you?

Mr. LEVITAN. The specific area that I mentioned was improving the capability of the IRS to manage this program, and they just do not have people—the numbers of people or people with the depth of experience of managing programs of this scale to be able to do that. They are not capable of doing that at the present time. They have recognized it. They have initiated some searches. They have search firms working for them, trying to identify and then hire people that can bring that added competence. It has been moving very slowly and we have been urging them to make that move as quickly as possible.

Chairman HOUGHTON. Let me just cut in here a minute. I see an almost impossible situation out there. If you are right and there is a lack of management ability to direct and enforce and monitor what is going on in terms of the PRIME contractor, and yet on the other hand in terms of the IRS internally there is a lack of confidence in what the PRIME contractor is doing, how do we get out of this mess?

Mr. LEVITAN. That is the crux of the issue. Again, we get out of the mess by improving the capabilities of the IRS through process improvement and people and experience improvement, by working with the PRIME team, trying to make sure that we get the right people doing the right work that have the right skills, and that needs a lot more attention. It is going to take time, it is going to take a lot of work, and there will continue to be significant risks in that.

Chairman HOUGHTON. We all know it ought to be done. The question is, will it be done and who does it and what part does this group play in this thing? We can ask questions. We can sit here, and we can be interested in your particular expertise. Is there a confidence that the next step will be taken so we are really going to get our hands around this thing so that next year when we have a session like this, a hearing, we are not going to be talking about the same issues? This has been going on a long, long time.

Would any of the rest of you have any comments on that, Mr. Palmquist, Mr. Dacey?

Mr. PALMQUIST. Mr. Chairman, one of the recommendations—the fundamental recommendations we made in our report—was that at this point, there is no coherent systems engineering process on CADE which takes care of looking at CADE long term. The CADE has been allowed to focus on the short term because of the problems. To echo Mr. Levitan, the IRS itself does not have a dedicated systems engineer. They don't have a dedicated software architect or software engineer. They don't at this point have the technical staff to work with the program.

The recommendation that we would have is to treat this improvement itself as a project along with the delivering of the deliverables. It needs to be measured, it needs to be agreed to by all stakeholders, so as you said, we don't arrive here a year from now. There have to be points along the way where you are looking and say, where are we? If this is not working, to have the defined actions in place that I will take step A or step B at this point, which, as you said, could include a change, could include a continuation.

Chairman HOUGHTON. What chance would you have, before we move back to Mr. Dacey, what are the odds you would give to this thing working and getting back on track, 1 out of 10?

Mr. PALMQUIST. As we told Commissioner Everson, we gave a 60 percent chance that Release 1 would be delivered by the end of this year. That was Release 1 as defined to us back in the fall. I don't know if that functionality or design has changed. I understand that there are elements that have. I would probably—as an engineer, I am going to have to pick a deliverable—and so I will go with that. We predicted a 60 percent chance of delivering CADE Release 1, which is fundamentally the infrastructure.

The CADE Release 1 is actually viewed, in our opinion, incorrectly. It is far more complex than simply the small group of 1040EZs. When Release 1 is there, the infrastructure is there for the rest of the releases, but we went with 60 percent, Mr. Chairman.

Chairman HOUGHTON. How about you, Mr. Dacey?

Mr. DACEY. In terms of the issues that we started to talk about, Mr. Levitan and Mr. Palmquist, there certainly is the human capital element of this which needs to go on. I think an important point that Mr. Palmquist made was you need to manage the process of fixing these issues almost as a separate project, and I think that is important. Again, one of the concerns we have had all along has been that the projects continue to roll on in the hope that some of these other things will get resolved, but there wasn't a separate process there to make sure they all got fixed.

I would also like to say that in looking at this modernization process at IRS for quite a number of years now, it was only in the recent couple of years that some of the very foundational elements of system development were in place in enterprise architecture, a life cycle which specified how these processes were to take place and implementation of some of these improvements in the management practices. That is, again, a relatively short period of time.

So, I think that those have been very positive steps in getting some of these foundational elements in place, but again, as we are finding in some of the testing, there are still risks that some of the

things that weren't dealt with very early on in the program project development are creeping back in and causing problems today.

I would like also to say that our relationship with the IRS has been positive. They have been open and candid and sharing very openly in our experience with these processes, which is a very positive step in my mind. They haven't tried to, in our mind, hide anything or do anything that would obfuscate our efforts. So, I think that is a very positive step in their acceptance of that. I don't know what the experience is of the other folks, but I assume it is similar.

Chairman HOUGHTON. Okay. Mr. Pomeroy, do you have any further questions?

Mr. POMEROY. I want to thank the panel. It has been a very interesting hearing, Mr. Chairman. I particularly have enjoyed Mr. Levitan's laying it right out there very straight. Having heard a lot of witnesses, I found your take on all of this to be very helpful.

I also thought Mr. Palmquist's comments on managing the improvements as a separate project has an ongoing role for this Committee, Mr. Chairman. I would think we would probably want to reconvene this forum in a number of months, to be discussed in terms of what would be an appropriate time frame, but if we manage it as a separate project, I think there is an ongoing oversight role in seeing how we are coming. Thank you.

Chairman HOUGHTON. Thank you. Gentlemen, thank you very much for your time and your wisdom and your advice. Thank you. Meeting adjourned.

[Whereupon, at 11:20 a.m., the hearing was adjourned.]

