



*Annual Assessment of the  
Business Systems Modernization Program*

**August 2005**

**Reference Number: 2005-20-102**

This report has cleared the Treasury Inspector General for Tax Administration disclosure review process and information determined to be restricted from public release has been redacted from this document.



TREASURY INSPECTOR GENERAL  
FOR TAX ADMINISTRATION

DEPARTMENT OF THE TREASURY  
WASHINGTON, D.C. 20220

August 10, 2005

**MEMORANDUM FOR CHIEF INFORMATION OFFICER**

*Pamela J. Gardiner*

**FROM:** Pamela J. Gardiner  
Deputy Inspector General for Audit

**SUBJECT:** Final Audit Report – Annual Assessment of the Business Systems  
Modernization Program (Audit # 200520011)

This report presents our annual assessment of the Business Systems Modernization (BSM) program. The overall objective of this review was to assess the progress of the BSM program for Fiscal Year (FY) 2005 as required by the Internal Revenue Service (IRS) Restructuring and Reform Act of 1998.<sup>1</sup>

*Synopsis*

The BSM program is a complex effort to modernize the IRS' technology and related business processes. According to IRS estimates, this effort involves integrating thousands of hardware and software components over 15 years, with PRIME contractor<sup>2</sup> costs of over \$8 billion. The program is in its seventh year and has allocated approximately \$1.9 billion for contractor and integrator activities. Additionally, the IRS has provided \$213 million in funding to the Business Systems Modernization Office (BSMO) since FY 1999.<sup>3</sup>

The IRS and its contractors have deployed projects that provide value to taxpayers and have built the infrastructure needed to support these projects. In addition, the IRS has developed an Enterprise Architecture that includes all IRS business units, processes, programs, and operations

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<sup>1</sup> Pub. L. No. 105-206, 112 Stat. 685 (codified as amended in scattered sections of 2 U.S.C., 5 U.S.C. app., 16 U.S.C., 19 U.S.C., 22 U.S.C., 23 U.S.C., 26 U.S.C., 31 U.S.C., 38 U.S.C., and 49 U.S.C.).

<sup>2</sup> The PRIME contractor heads an alliance of leading technology companies brought together to assist with the IRS' efforts to modernize its computer systems and related information technology.

<sup>3</sup> The BSMO stated approximately 25 percent of its noncontractor budget since FY 2001 was used to support non-BSM program activities in the IRS.



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and provides details to help guide current and future modernization initiatives. New releases<sup>4</sup> of BSM projects that have delivered value to taxpayers in the past year include the Modernized e-File (MeF),<sup>5</sup> the Customer Account Data Engine (CADE),<sup>6</sup> and the e-Services.<sup>7</sup> In addition, new capabilities for the IRS' internal use were provided in the Integrated Financial System (IFS).<sup>8</sup> The BSM program has also taken steps to improve its management processes. For example, the Release Management Office and the Requirements Management Office are developing guidelines and processes to fulfill modernization program management needs.

Since its inception, the BSM program has experienced management problems at both the program and project levels, as well as problems between the IRS and the PRIME contractor. In recognition of this condition, key IRS executives and stakeholders developed the BSM Challenges Plan. The Associate Chief Information Officer (ACIO), BSM, reviewed the Challenges Plan, as well as various reports prepared by the Treasury Inspector General for Tax Administration (TIGTA) and the Government Accountability Office. As a result, the ACIO, BSM, determined what the IRS believed to be the key barriers to success in the BSM program and created a plan to address these barriers.

In the past year, we reported weaknesses continue to exist in critical program management and system development processes. These processes involve requirements management, contract management, software testing, and security controls. BSM project accomplishments did not include all intended capabilities, were not delivered on schedule, and exceeded proposed costs.

Since the start of the modernization effort, the BSM program has experienced cost overruns and schedule delays in its project development and deployment. In early 2005, the IRS reported project deliveries were within budget and schedule estimates for projects delivered since August 2004. This assessment was based on cost and schedule estimates in the IRS' May 2004 BSM Expenditure Plan.

Our comparison of project cost estimates and schedules for ongoing project releases in the IRS' May 2004 and February 2005 BSM Expenditure Plans showed increases in costs for 4 project releases totaling \$28,300,000 (48 percent increase for these releases) and delays in scheduled completion dates ranging up to 14 months. The \$28,300,000 increase represents a cost increase of 20 percent for all ongoing project releases. The IRS funded these project cost increases through expenditure plan additions and funding previously obtained through project risk

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<sup>4</sup> A release is a specific edition of software.

<sup>5</sup> The MeF project is developing the modernized, web-based platform for electronically filing approximately 330 IRS forms.

<sup>6</sup> The CADE project is the foundation for managing taxpayer accounts in the IRS modernization plan.

<sup>7</sup> The e-Services allows third parties to interact with the IRS via the Internet.

<sup>8</sup> The IFS project includes the accounts payable, accounts receivable, general ledger, budget execution, cost management, and financial reporting activities.



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adjustments.<sup>9</sup> IRS management advised these changes were caused by factors outside their control, such as additional requirements and Congressional delays in passing legislation.

In September 2004, when we reported<sup>10</sup> concerns about the assignment of modernization program integrator responsibilities, the Chief Information Officer (CIO) responded that some of the responsibility for the implementation would move to the recently created position of ACIO, Enterprise Services. In January 2005, the IRS began taking over the role of systems integrator from the PRIME contractor due to reductions in funding by the Congress for the BSM program and concerns about the PRIME contractor's performance. The IRS is in the process of assuming some of these responsibilities.

The assumption of the integrator role by the IRS is recognized in the BSM program as a high priority and is included in its list of Highest Priority issues for March 1, 2005, to September 1, 2005. Many of these issues revolve around program management transition from the PRIME contractor to the IRS. BSM officials have focused these issues into the key areas of staffing and skill sets, contractor management, requirements and demand management, and project management disciplines.

Over the past 3 fiscal years, our annual BSM program assessments have cited 4 primary challenges the IRS and its contractors must meet to achieve program success: 1) implement planned improvements in key management processes and commit necessary resources to enable success, 2) manage the increasing complexity and risks of the BSM program, 3) maintain the continuity of strategic direction with experienced leadership, and 4) ensure contractor performance and accountability are effectively managed.

Although the IRS has taken a number of actions in response to our recommendations, recent TIGTA findings show these four challenges still exist. Therefore, we remain cautious about looking forward based on FY 2004 results, due to uncertainties related to BSM roles and responsibilities and the challenges facing the IRS that could affect future accomplishments.

### Response

The CIO stated appreciation for acknowledgement of the BSM program's ability to meet short-term goals during the past, the complexity of the BSM program, and the progress made. The CIO also agreed with our observation that the BSM has a lot of work ahead.

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<sup>9</sup> To allow for changes around cost estimates, the IRS has included a "risk adjustment" amount for each project or activity area.

<sup>10</sup> *The Office of Release Management Can Improve Controls for Modernization Program Coordination* (Reference Number 2004-20-157, dated September 2004).



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The CIO cited progress in four key areas that align with the primary challenges the IRS and its contractors must meet to achieve program success outlined in this report.

1. The 2005 modernization budget reflects a portfolio that more closely aligns the BSM workload with the IRS' and PRIME contractor's management capacity.
2. The IRS assigned a business unit leader to each project with responsibility for leading the related BSM Governance Committee and sharing accountability for delivering the modernization project as stated in his or her annual performance commitments.
3. The IRS Commissioner meets monthly with the Chief Operating Officer of the Computer Sciences Corporation (the PRIME contractor) to reinforce the accountability of the contractor to the IRS. By restructuring BSM project contracts with the PRIME contractor, the IRS has shifted an appropriate amount of financial risk to the contractor and tied costs to performance. These steps have resulted in improved contractor performance, as demonstrated in the deliverables in 2004 and the general adherence to costs and schedules.
4. The IRS has made great progress in hiring experienced executives and seasoned managers from outside the agency who have expertise in running large-scale information technology programs and projects. A little over a year ago the mix of leadership at the top of the BSM program consisted of one outside expert and six internal IRS executives. Today, that mix is four outside experienced experts and three internal IRS executives. This mix is a much better balance of the project management and technology talent and tax administration experience needed to successfully run the BSM program.

The CIO is very confident the IRS and the BSMO have the management focus and discipline in place to ensure they are "doing things right" as opposed to "doing things fast," such as exiting milestones prematurely. The ongoing challenge will be balancing the scope and pace of projects consistent with capacity, ensuring the right people are in place before launching a project, and setting realistic delivery schedules and cost estimates. Management's complete response to the draft report is included as Appendix X.

Copies of this report are also being sent to the IRS managers affected by the report observations. Please contact me at (202) 622-6510 if you have questions or Margaret E. Begg, Assistant Inspector General for Audit (Information Systems Program), at (202) 622-8510.



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## *Background*

The Internal Revenue Service (IRS) Restructuring and Reform Act of 1998<sup>1</sup> requires the Treasury Inspector General for Tax Administration (TIGTA) to annually evaluate the adequacy and security of the IRS' information technology. This report provides our assessment of the IRS Business Systems Modernization (BSM) program for Fiscal Year (FY) 2005.

The BSM program is a complex effort to modernize the IRS' technology and related business processes. According to the IRS, this effort will involve integrating thousands of hardware and software components. All of this must be done while replacing outdated technology and maintaining the current tax system.

To facilitate the success of its modernization efforts, the IRS hired the Computer Sciences Corporation as the PRIME contractor<sup>2</sup> and integrator for the BSM program and created the Business Systems Modernization Office (BSMO) to guide and oversee the work of the PRIME contractor. Additional contractors have been hired to supplement the design and development of modernization projects.<sup>3</sup>

The IRS estimates this effort will last up to 15 years and incur PRIME contractor costs of over \$8 billion. The program is in its seventh year and has allocated approximately \$1.9 billion in expenditures for contractor and integrator activities. Additionally, the IRS has provided \$213 million<sup>4</sup> in funding to the BSMO since FY 1999.<sup>5</sup>

This review was performed at the BSMO facilities in the IRS National Headquarters in Washington, D.C., and New Carrollton, Maryland, and the TIGTA office in Laguna Niguel, California. The information presented in this report is derived from current and previous TIGTA and Government Accountability Office (GAO) audits and discussions with the appropriate BSM officials. Compilation of this information was conducted during the period January through May 2005. The previous audits and our limited analyses were conducted in accordance with *Government Auditing Standards*. Detailed information on our audit objective, scope, and methodology is presented in Appendix I. Major contributors to the report are listed in Appendix II.

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<sup>1</sup> Pub. L. No. 105-206, 112 Stat. 685 (codified as amended in scattered sections of 2 U.S.C., 5 U.S.C. app., 16 U.S.C., 19 U.S.C., 22 U.S.C., 23 U.S.C., 26 U.S.C., 31 U.S.C., 38 U.S.C., and 49 U.S.C.).

<sup>2</sup> The PRIME contractor heads an alliance of leading technology companies brought together to assist with the IRS' efforts to modernize its computer systems and related information technology.

<sup>3</sup> See Appendix IV for a list of BSM projects and descriptions.

<sup>4</sup> The BSMO stated approximately 25 percent of its noncontractor budget since FY 2001 was used to support non-BSM program activities in the IRS.

<sup>5</sup> See Appendix V for details.



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## *Results of Review*

### ***The Internal Revenue Service and Its Contractors Are Continuing to Make Progress***

The IRS and its contractors have deployed projects that provide value to taxpayers and have built the infrastructure needed to support these projects. In addition, the IRS has developed an Enterprise Architecture that includes all IRS business units, processes, programs, and operations and provides details to help guide current and future modernization initiatives.

New releases<sup>6</sup> of BSM projects that have delivered value to taxpayers in the past year include the Modernized e-File (MeF), the Customer Account Data Engine (CADE), and the e-Services.

- **MeF** – The MeF project is developing the modernized, web-based platform for electronically filing approximately 330 IRS forms. The MeF project currently consists of several releases.
  - Release 1 developed the infrastructure, application base, and support for 53 forms filed by corporations and 6 forms filed by exempt organizations. This release was deployed in February 2004.
  - Release 2 added the remaining 44 forms associated with corporations and the public disclosure capabilities required by the Tax Exempt and Government Entities Division. This release was deployed in August 2004.
  - Release 3.1 incorporated the Return of Private Foundation or Section 4947(a)(1) Nonexempt Charitable Trust Treated as a Private Foundation (Form 990-PF) and the ability to file extensions for a U.S. Corporation Income Tax Return (Form 1120) and a U.S. Income Tax Return for an S Corporation (Form 1120S). This release was deployed in January 2005.
- **CADE** – The CADE project is the foundation for managing taxpayer accounts in the IRS modernization plan. The CADE will consist of databases and related applications to replace the IRS' existing Master File processing systems.<sup>7</sup> In July 2004, the IRS delivered CADE Release 1.1, which successfully processed refund and even-balance

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<sup>6</sup> A release is a specific edition of software.

<sup>7</sup> Master File processing systems consist of the Master Files that contain taxpayer account and return data for individuals, businesses, and employer retirement plans. A non-Master File also exists for taxpayer data that cannot be stored in the other Master Files due to data format and space limitations.



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Income Tax Returns for Single and Joint Filers With No Dependents (Form 1040EZ)<sup>8</sup> for single taxpayers with no pending tax issues. The CADE Release 1.2 started processing these same types of tax returns in January 2005 and is estimated to process approximately 1.3 million returns during the 2005 Filing Season.<sup>9</sup>

- **e-Services** – The e-Services project allows third parties to interact with the IRS via the Internet. The first release was deployed in August 2003. An FY 2004 release included Disclosure Authorization and Electronic Account Resolution. The Disclosure Authorization tool gives eligible tax professionals an online option for submitting Power of Attorney and Declaration of Representative (Form 2848) or Taxpayer Information Authorization forms. Electronic Account Resolution allows tax professionals to electronically correspond with the IRS. During 2003 and 2004, over 61,000 participants registered to use e-Services. Also, over 130,000 electronic return originator applications were received.

In addition, the IRS and its contractors released new capabilities for the IRS' internal use in the Integrated Financial System (IFS).

- **IFS** – The IFS was developed to address administrative financial management weaknesses in the IRS accounting systems. The first release of the IFS became fully operational in January 2005 and included the accounts payable, accounts receivable, general ledger, budget execution, cost management, and financial reporting activities. A future IFS release was planned to include property, performance, and procurement management, but work was suspended on this release in early 2005 due to budget constraints.

The BSM program has also taken steps to improve its management processes. The Release Management Office and Requirements Management Office are developing guidelines and processes to fulfill modernization program management needs.

- **Release Management Office** – The Release Management Office obtains services from the PRIME contractor and other BSM program contractors, coordinates the delivery of those services, and resolves problems with and between the contractors and the IRS. The Release Management Office includes two subordinate offices.
  - The Release Scheduling Office obtains services from the PRIME contractor's Release Management Office, including the Integrated Master Schedule, which provides a schedule for project development and integration of all BSM projects; attends and hosts various meetings with the BSMO, IRS, and BSM contractors to assist in communicating project status and to facilitate problem resolution; and coordinates

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<sup>8</sup> The initial release of the CADE will not process Forms 1040EZ for joint filers.

<sup>9</sup> The period from January through mid-April when most individual income tax returns are filed.



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- project hardware and software requirements and project development services between the BSM contractor staff and the IRS.
- The Integration Test and Deployment Office provides an integrated testing<sup>10</sup> and deployment program to verify that business and systems requirements will be met by the BSM projects.
  - **Requirements Management Office** – The Associate Chief Information Officer (ACIO), BSM, recognized the significance of continued and recurring requirements development and management problems and established a Requirements Management Office in March 2005. This Office will work to resolve the requirements development and management problems affecting the BSM program. This includes providing oversight for all participants involved in modernization requirements development and management activities.

### **The IRS recognized its modernization program problems and identified challenges to address them**

Since its inception, the BSM program has experienced management problems at both the program and project levels, as well as problems between the IRS and the PRIME contractor. Due to continuing BSM project cost overages and schedule delays, the IRS and the PRIME contractor initiated the following four studies in mid-2003 to help identify the root causes of the problems hindering the BSM effort and to make recommendations on remedying the problems identified:

- **CADE Study** – The Software Engineering Institute (SEI)<sup>11</sup> conducted a study of the CADE project.
- **PRIME Contractor Internal Study** – Bain and Company conducted an internal study of the PRIME contractor.
- **IRS Root Cause Study** – The BSMO conducted an internal study of the BSM program.
- **High-Level Assessment of the IRS Office of Procurement Study** – Acquisition Solutions, Incorporated, conducted a study of the IRS acquisition program.<sup>12</sup>

Key IRS executives and stakeholders reviewed the results of the 4 studies in October 2003 and created 46 actions to address the study recommendations. These 46 actions collectively became known as the BSM Challenges Plan. In December 2003, the IRS Oversight Board issued a

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<sup>10</sup> Integration testing ensures all system components (hardware and software) are working correctly and collectively with other related or dependent systems.

<sup>11</sup> The SEI is a Federally Funded Research and Development Center whose purpose is to help others make measured improvements in their software engineering capabilities.

<sup>12</sup> While the main focus of the study was not on the BSM program, BSM acquisition weaknesses were addressed.



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special report<sup>13</sup> containing 9 recommendations, 2 of which were added to the 46 actions already identified. The IRS is continuing to address the BSM Challenges Plan.

The ACIO, BSM, reviewed the four studies, as well as various reports prepared by the TIGTA and GAO. As a result, the ACIO, BSM, determined what the IRS believed to be the key barriers to success in the BSM program and created a plan to address these barriers. This plan initially included 7 high-level key focus areas and 16 detailed high-priority issues that are updated periodically to deal with the root causes that are creating the barriers.

### ***Although Progress Has Been Made, Modernization Achievements Have Not Met All Expectations***

While the IRS and the PRIME contractor have made progress in the BSM efforts, the achievements have not met all expectations. The unmet expectations included efforts to improve overall program management activities and delivering project capabilities within planned cost and schedule budgets.<sup>14</sup> The IRS is addressing and monitoring corrective actions to address our findings.

#### ***The BSM did not implement and measure BSM program management improvement efforts***

The BSMO recognized the need to improve program management activities, as discussed above. However, the activities did not include actions to ensure the program development activities were adequately planned and implemented.

**BSM Challenges Plan** – The BSM Challenges Plan identified program actions needed to improve management of the modernization program. However, recommendations were not fully addressed by the BSM Challenges Plan; a measurement plan was not created to determine if the actions taken resulted, or will result, in actual improvements in the BSM program; and many BSM Challenges Plan actions were closed before all significant activities were completed. For example, a BSM Challenges Plan action item was created to ensure projects strictly follow the Enterprise Life Cycle (ELC)<sup>15</sup> and appropriate alternatives within the ELC are selected. While we identified actions taken to ensure appropriate alternatives within the ELC are selected, we could not identify any actions to ensure projects strictly follow the ELC. Since issuance of our

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<sup>13</sup> *Independent Analysis of IRS Business Systems Modernization* (dated December 2003).

<sup>14</sup> Appendix VI presents a list of the TIGTA report findings on the BSM program.

<sup>15</sup> See Appendix VII for an overview of the ELC.



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prior report,<sup>16</sup> the ACIO, BSM, has incorporated several of the closed BSM challenges into the ongoing high-priority issues and is in the process of creating measures to track the success of the IRS' actions.

**Weaknesses in critical system development and program management processes continue to exist**

While the BSMO continues efforts to improve overall program management processes, weaknesses continue to exist in requirements management, contract management, software testing, and security controls.

**Requirements Management** – Continuing requirements development and management problems encouraged the ACIO, BSM, to establish a Requirements Management Office. We provided industry guidance and a summary of prior audit results<sup>17</sup> to assist the proposed Requirements Management Office in developing processes and procedures to effectively develop and manage project requirements. The Office was established in March 2005 and is currently identifying staffing needs and developing its mission and guidance to operate the program.

**Contract Management** – The BSMO is not consistently using contract provisions and negotiations that would protect the best interest of the Federal Government.<sup>18</sup> Contract award justifications did not always provide adequate detail for not using firm fixed-price contract provisions. Contracting provisions that could balance risk between the IRS and the contractor were used inconsistently. Additionally, consistent application of best practices could further improve the contract negotiations process.

**Software Testing** – Testing responsibilities were not always defined clearly in the Integration Test and Deployment Office's testing procedures,<sup>19</sup> and testing practices showed they continued to need improvement.<sup>20</sup> Also, controls needed improvement to ensure all selected system requirements were tested prior to system deployment.<sup>21</sup>

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<sup>16</sup> *The Internal Revenue Service Should Ensure the Root Causes of Business Systems Modernization Performance Problems Are Successfully Addressed* (Reference Number 2005-20-014, dated December 2004).

<sup>17</sup> *The Modernization Program Is Establishing a Requirements Management Office to Address Requirements Development and Management Problems* (Reference Number 2005-20-023, dated January 2005).

<sup>18</sup> *While Many Improvements Have Been Made, Continued Focus Is Needed to Improve Contract Negotiations and Fully Realize the Potential of Performance-Based Contracting* (Reference Number 2005-30-083, dated May 2005).

<sup>19</sup> *The Office of Release Management Can Improve Controls for Modernization Program Coordination* (Reference Number 2004-20-157, dated September 2004).

<sup>20</sup> *The Integrated Financial System Project Team Needs to Resolve Transition Planning and Testing Issues to Increase the Chances of a Successful Deployment* (Reference Number 2004-20-147, dated August 2004).

<sup>21</sup> *System Requirements Were Not Adequately Managed During the Testing of the Custodial Accounting Project* (Reference Number 2005-20-019, dated December 2004).



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**Security Controls** – Additional emphasis is needed by the BSMO, the PRIME contractor, and the Mission Assurance and Security Services organization to ensure security controls are adequately considered during development of new information systems. In our review<sup>22</sup> of five modernization systems, we identified security weaknesses that could have been addressed during the design of these systems if appropriate attention had been devoted to security. IRS organizations have advised us increased emphasis is now being given to ensure adequate security requirements are considered during the design of systems.

***The IRS reported it has successfully met rebaselined project cost and delivery schedule estimates; however, current project work shows increased costs, delayed schedules, and deferred systems capabilities***

Since the start of the modernization effort, the BSM program has experienced cost overruns and schedule delays in its project development and deployment. In early 2005, the IRS reported project deliveries were within budget and schedule estimates for projects delivered since August 2004. This assessment was based on cost and schedule estimates in the IRS' May 2004 BSM Expenditure Plan.

Our analysis of the rebaselined project deliveries confirms the IRS' assessment that project releases (CADE Releases 1.1 and 1.2, e-Services Release 2.1.2, and MeF Releases 1, 2, and 3.1) were generally within budget and on time based on estimates from the May 2004 BSM Expenditure Plan. In the May 2004 Expenditure Plan, 4 projects allocated risk adjustment<sup>23</sup> funding of \$21,500,000 to cover anticipated additional costs (14 percent of planned costs).

We compared project cost estimates and schedules for ongoing project releases in the IRS' May 2004 and February 2005 BSM Expenditure Plans and found increases in costs for 4 project releases totaling \$28,300,000 (48 percent increase for these releases) and delays in scheduled completion dates ranging up to 14 months. The \$28,300,000 increase represents a cost increase of 20 percent for all ongoing project releases. The IRS funded these project cost increases through expenditure plan additions and funding previously obtained through project risk adjustments. IRS management advised these changes were caused by factors outside their control such as additional requirements and Congressional delays in passing legislation.<sup>24</sup>

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<sup>22</sup> *Security Controls Were Not Adequately Considered in the Development and Integration Phases of Modernization Systems* (Draft report, dated June 24, 2005).

<sup>23</sup> Available funding for changes to cost estimates. To allow for changes around cost estimates, the IRS has included a "risk adjustment" amount for each project or activity area.

<sup>24</sup> Our detailed analysis of all ongoing projects is shown in Appendix VIII.



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In addition, there are significant cost increases and schedule delays over the life of the projects. Table 1 presents an overall project cost and schedule analysis.<sup>25</sup>

**Table 1: BSM Project Delivery and Cost Analysis**

<b>Project</b>	<b>Reported/Revised Estimated Cost (in thousands)</b>	<b>Cost Variance (in thousands)</b>	<b>Schedule Variance (in months)</b>
MeF Release 1	\$50,303	+\$21,057	+6.5
e-Services	\$148,820	+\$102,271	+18
CADE Release 1	\$182,774	+\$118,129	+30
CADE Business Rules	\$38,102	+\$11,902	+18
IFS Release 1	\$173,580	+\$73,710	+15 <sup>26</sup>
CAP Release 1	\$138,950	+\$91,789	+33 <sup>27</sup>

*Source: GAO Review of the BSM expenditure plans.*

Additionally, systems capabilities planned for specific project releases have been deferred until later releases. For example:

- System capabilities planned for the CADE Release 1.1 to manage taxpayer accounts with address changes have been deferred to Release 1.3.1.
- System capabilities for the MeF project to timely display large-file tax returns for IRS employee use and to timely process U.S. Corporation Short-Form Income Tax Returns (Form 1120-A) have been deferred.

The deferral of system capabilities to later releases may increase the costs and schedules of subsequent releases.

While the ability to meet short-term goals is a noteworthy accomplishment, the IRS has not proven its ability to meet longer-term cost and schedule estimates. The ability of the BSM

<sup>25</sup> Further detail about the project costs and schedules are presented in Appendix IX, which includes a summary analysis of the BSM program cost overruns and schedule delays.

<sup>26</sup> Work on the IFS has been suspended.

<sup>27</sup> Work on the CAP has been canceled.



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program to sustain its FY 2004 accomplishments with projects in earlier stages of the life cycle remains to be seen.

### **The IRS is scaling back and refocusing the modernization program to adjust to reduced budgets**

During FY 2004, the IRS had to scale back the scope of development activities due to budget reductions by the Congress.<sup>28</sup> The available budget resulted in scoping development activity to focus primarily on the CADE, MeF, and Filing and Payment Compliance projects.

For example, the CADE project's plans to process individual taxpayer accounts have been revised several times to accommodate development delays and uncertainty in program direction. Decisions are still to be made about incorporating the use of a business rules engine<sup>29</sup> and using a business rules approach.<sup>30</sup> The IRS is also considering integrating some existing tax return processing systems with the CADE to expedite and expand its capabilities. These decisions will affect how the CADE will process segments of individual tax return populations (e.g., Form 1040EZ, U.S. Individual Income Tax Return (Form 1040A), U.S. Individual Income Tax Return (Form 1040), and supporting schedules<sup>31</sup> with refund, even-balance, or balance-due accounts).

The refocus of the CADE project also affects related modernization project integration activity such as the Customer Account Management (CAM)<sup>32</sup> project. The uncertainty of the CADE development, along with reductions in available funding, will determine when the CAM can be developed to provide taxpayers improved customer service with more accurate and timely account maintenance and analysis. Without an application such as the CAM, the CADE can act only as a system to process tax returns requiring no account adjustments.

In addition, the budget reduction prompted the IRS to suspend further development of the IFS project and cancel the use of the CAP. The cancellation of the CAP made the initial releases

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<sup>28</sup> Appendix V presents an analysis of the history of modernization program funding.

<sup>29</sup> A business rules engine translates business rules, or processing criteria, into executable computer code that processes transactions related to a tax form and selects and executes correct rules based on the tax year and tax form.

<sup>30</sup> A business rule is a statement that defines or constrains some aspect of the business. A business rules approach manages and automates an organization's business rules so business people know where to find out what the rules are and how business people can initiate or steward changes in the rules. For the IRS, business rules are principally representations of tax laws, tax administration procedures, and tax forms.

<sup>31</sup> Form 1040A is a short version tax form. Form 1040 can have supporting schedules such as Itemized Deductions (Schedule A), Interest and Ordinary Dividends (Schedule B), etc.

<sup>32</sup> The CAM project is intended to provide improved technology and business processes to better manage customer service functions, use customer data to improve customer interactions, provide account and tax law assistance to customers, manage case workflow for customer inquiries, and support other modernization efforts by providing access to comprehensive, timely, and accurate customer and account information.



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unusable for accounting work, which was the CAP's intended purpose. The IRS has indicated it will leverage the knowledge gained and work products from the CAP in other modernization initiatives, potentially reducing their costs or making other projects better. For instance, the IRS reported the data models developed for the CAP can be used on the CADE project, data segmentation and analysis can be performed in a more modernized way, and the analysis and requirements developed for dozens of reports prepared to support GAO audits can be used as the basis for a new system. While there may be some residual benefit from the CAP work, a significant portion of the \$135 million spent on this canceled project will result in unrecoverable costs.

The CAP project was designated to use an additional \$20 million to complete Release 1 development in FY 2005 and an estimated \$110 million for remaining life cycle costs that will not be incurred. The project cancellation allowed these funds to be put to better use on other modernization activities.

### ***The Internal Revenue Service Is Assuming Modernization Program Management Responsibilities From Its PRIME Contractor***

In February 2004, the Commissioner testified the IRS would carefully assess the PRIME contractor's performance on current projects and the results of the PRIME contractor's overall program management and integration efforts before awarding any follow-on work for existing projects, due to concerns with the contractor's performance.

Following this reconsideration of the PRIME contractor's performance, we reviewed the status of the role of integrator for the IRS' modernization effort. Our reviews found the BSM program has gone beyond the exclusive assignment of the PRIME contractor as its integrator. For example, the BSMO acted as the integrator for the MeF project, and the Northrop Grumman Corporation was serving as the integrator for the CAP. Diversifying the development activities of the overall BSM program required the BSMO to consider how to assign responsibility for integrating these projects.

In September 2004, when we reported<sup>33</sup> concerns about the assignment of modernization program integrator responsibilities, the Chief Information Officer (CIO) responded that some of the responsibility for the implementation would move to the recently created position of ACIO, Enterprise Services. The CIO planned for this ACIO to ultimately manage, direct, and oversee cross-cutting areas that involve highly complex, mission critical, information system initiatives such as demand analysis, Enterprise Architecture, configuration management, project reporting, ELC management, and systems engineering.

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<sup>33</sup> *The Office of Release Management Can Improve Controls for Modernization Program Coordination* (Reference Number 2004-20-157, dated September 2004).



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In January 2005, the IRS began taking over the role of systems integrator from the PRIME contractor due to reductions in funding by the Congress for the BSM program and concerns about the adequacy of the PRIME contractor's performance at the program level. In the IRS' new operating model, the IRS will now be responsible for program-level activities such as:

- Systems integration.
- Business requirements management/validation.
- Procurement administration.
- Integrated cost, schedule, and dependency management.
- Process management.
- Risk management.
- Configuration and change management.
- ELC management and enhancement.
- Release management.
- Transition management.
- Engineering.
- Architecture.

The IRS will continue to use the Development, Integration, and Test Environment (DITE)<sup>34</sup> and the modernized infrastructure from the PRIME contractor. The PRIME contractor's new primary function is to deliver business solutions (projects) and to provide support services to the IRS. On new projects, the PRIME contractor will compete for the contracts with other contractors.

To be able to provide effective modernization program management, the IRS is in the process of identifying and assigning staffing and responsibilities. The ACIO, BSM, is refining the BSM staffing model to cover all of the BSMO activities and estimates staffing will require approximately 350 positions (the BSM program is currently authorized 314 positions). Some of these responsibilities may migrate from the BSMO to the newly created ACIO, Enterprise Services. Responsibilities envisioned to migrate include configuration and change management, business requirements management/validation, and ELC management and enhancement.

Skills needed to perform these responsibilities have been an issue of concern. Specialized skill positions, such as systems architects and engineers, have been difficult to fill. As an example, one of the BSM Challenges was to "strengthen IRS systems engineering capability through external hiring." Since this Challenge was issued in October 2003, the BSMO has been able to identify eight systems engineers for hiring as of April 28, 2005. The BSMO had plans to fill a total of 10 systems engineer positions.

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<sup>34</sup> The DITE provides a system development and testing environment for BSM projects.



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The assumption of the integrator role by the IRS is recognized in the BSM program as part of its highest priority needs and is included in its March 14, 2005, list of the BSM Highest Priority issues for March 1, 2005, to September 1, 2005. Many of the issues proposed for this emphasis revolve around program management transition from the PRIME contractor to the IRS. BSM officials have focused these issues into the key areas of staffing and skill sets, contractor management, requirements and demand management, and project management disciplines.

### ***Because of Continuing Transition in the Modernization Program, Previously Reported Challenges Still Exist***

The IRS has reported in Congressional testimony it substantially met its FY 2005 plans for the BSM program based on delivery of the planned CADE, MeF, e-Services, and IFS project releases. In addition, the IRS Oversight Board's March 2005 report<sup>35</sup> states, "The IRS' once deeply troubled BSM program has recently experienced an important turnaround. Due to improved management focus, BSM in 2004 delivered on schedule important technology products that will generate greater efficiencies throughout the agency and create tangible benefits for taxpayers."

Although these releases went operational on or close to revised cost estimates and delivery dates, they exceeded overall project cost and schedule estimates and did not provide all intended system capabilities, as discussed above. The IRS has recognized its program shortfalls and begun another year of transition for the BSM program. The program transition is in response to continuing problems with key modernization program processes, staffing, and budget constraints resulting in suspension of work on BSM projects and assumption of program management responsibilities from the PRIME contractor.

Over the past 3 fiscal years, our annual BSM program assessments have cited 4 primary challenges the IRS and its contractors must meet to achieve program success:

- 1) Implement planned improvements in key management processes and commit necessary resources to enable success.
- 2) Manage the increasing complexity and risks of the BSM program.
- 3) Maintain the continuity of strategic direction with experienced leadership.
- 4) Ensure contractor performance and accountability are effectively managed.

Although the IRS has taken a number of actions in response to our recommendations, our recent audit findings show these four challenges still exist. Issues confronting the BSM program include the following:

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<sup>35</sup> *IRS Oversight Board FY 2006 IRS Budget* (dated March 2005).



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- Key management processes such as requirements management and configuration management continue to need attention and implementation, and testing processes continue to need program guidance and effective implementation. For example, the IRS and the CAP contractor did not track system requirements during testing, and the IRS accepted the system without knowing or reviewing how many requirements were successfully verified during testing.
- Managing the complexity and risks of the BSM program is a challenge the IRS has recognized. In our FY 2004 Annual BSM program assessment,<sup>36</sup> we reported the BSM Challenges Plan appeared to be an appropriate set of actions to take, and the IRS and PRIME contractor needed to complete the corrective actions to address the root causes identified. However, a measurement plan, including specific measurement criteria, was not created to determine whether the activities are leading to improvements in the BSM program. These activities now need to be managed through the key focus areas and high-priority issues of the ACIO, BSM.
- Maintaining the continuity of strategic direction with experienced leadership has continued to challenge the BSM program. The IRS has recently hired a number of executives from outside the IRS to increase the management capabilities and skills available to the BSM program. This effort continues prior initiatives but is difficult to sustain, due to the turnover of executives in these positions. Therefore, maintaining the continuity of strategic direction with experienced leadership has continued to challenge the BSM program.

For example, the current ACIO, BSM, started in early 2004 and is the fifth person to hold this executive position in the 7 years of the program. Project management has also experienced leadership changes. For example, the CADE Program Director retired in February 2004, and actors have filled the position since then. A candidate for the CADE Program Director was appointed in May 2005 and is in the process of relocating to this position. In addition, the Modernization and Information Technology Services organization is realigning responsibilities with the establishment of the ACIO, Enterprise Services. These changes all require time to develop program direction and processes to effectively manage the assigned responsibilities.

- The effective management of contractor performance and accountability will become even more important and difficult for the IRS because it is now functioning as the

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<sup>36</sup> *Annual Assessment of the Business Systems Modernization Program* (Reference Number 2004-20-107, dated June 2004).



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systems integrator for all contractors. In addition, during the previous Tax Systems Modernization (TSM)<sup>37</sup> efforts, the IRS had difficulties with this responsibility.

While the IRS has taken steps to address these areas, continued management attention will be required for the IRS to be successful in its modernization activities. The GAO also recognized the need for continued management attention and has included the BSM program as a high-risk area in its 2005 High-Risk Report,<sup>38</sup> as it has since 1995. The GAO high-risk program identifies and helps resolve serious weaknesses in areas that involve substantial resources and critical services to the public.

Therefore, we remain cautious about looking forward based on FY 2004 results, due to uncertainties related to BSM roles and responsibilities and the challenges facing the IRS that could affect future accomplishments.

**Management's Response:** The CIO stated appreciation for acknowledgement of the BSM program's ability to meet short-term goals during the past, the complexity of the BSM program, and the progress made. The CIO also agreed with our observation that the BSM has a lot of work ahead.

The CIO cited progress in four key areas that align with the primary challenges the IRS and its contractors must meet to achieve program success outlined in this report.

1. The 2005 modernization budget reflects a portfolio that more closely aligns the BSM workload with the IRS' and PRIME contractor's management capacity.
2. The IRS assigned a business unit leader to each project with responsibility for leading the related BSM Governance Committee and sharing accountability for delivering the modernization project as stated in his or her annual performance commitments.
3. The IRS Commissioner meets monthly with the Chief Operating Officer of the Computer Sciences Corporation (the PRIME contractor) to reinforce the accountability of the contractor to the IRS. By restructuring BSM project contracts with the PRIME contractor, the IRS has shifted an appropriate amount of financial risk to the contractor and tied costs to performance. These steps have resulted in improved contractor performance, as demonstrated in the deliverables in 2004 and the general adherence to costs and schedules.
4. The IRS has made great progress in hiring experienced executives and seasoned managers from outside the agency who have expertise in running large-scale

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<sup>37</sup> In late 1986, the IRS produced plans for a modernization effort, known as TSM, that was expected to be the key to the IRS' vision of a virtually paper-free work environment where taxpayer account updates would be rapid and taxpayer information would be readily available to IRS employees to respond to taxpayer inquiries.

<sup>38</sup> *HIGH-RISK SERIES: An Update* (GAO-05-207, dated January 2005).



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information technology programs and projects. A little over a year ago the mix of leadership at the top of the BSM program consisted of one outside expert and six internal IRS executives. Today, that mix is four outside experienced experts and three internal IRS executives. This mix is a much better balance of the project management and technology talent and tax administration experience needed to successfully run the BSM program.

The CIO is very confident the IRS and the BSMO have the management focus and discipline in place to ensure they are “doing things right” as opposed to “doing things fast,” such as exiting milestones prematurely. The ongoing challenge will be balancing the scope and pace of projects consistent with capacity, ensuring the right people are in place before launching a project, and setting realistic delivery schedules and cost estimates.



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## **Appendix I**

### *Detailed Objective, Scope, and Methodology*

The overall objective of this review was to assess the progress of the Business Systems Modernization (BSM) program for Fiscal Year (FY) 2005 as required by the Internal Revenue Service (IRS) Restructuring and Reform Act of 1998.<sup>1</sup> To accomplish this objective, we:

- I. Determined the current condition of the BSM program.
  - A. Obtained and reviewed the following documents:
    1. Treasury Inspector General for Tax Administration (TIGTA) reports issued from April 2004 through March 2005 and three previous BSM annual assessment reports (issued in 2002, 2003, and 2004).<sup>2</sup>
    2. The IRS Oversight Board documents related to the 2004 and 2005 reports on the BSM program to identify current Oversight Board issues and concerns.
    3. Government Accountability Office reports related to BSM program activities issued between April 2004 and March 2005.
  - B. Identified the status of cost and schedule adherence for open BSM projects.
- II. Determined the expected accomplishments for the BSM program during FY 2005.
  - A. Obtained the current status of the 48-point action plan, known as the BSM Challenges Plan.
  - B. Obtained and reviewed the Status of Highest Priority Issues in Current Remediation Plans document to determine progress in correcting areas identified by the new Associate Chief Information Officer, BSM.
  - C. Identified the BSM program capabilities released and planned for release during FY 2005.

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<sup>1</sup> Pub. L. No. 105-206, 112 Stat. 685 (codified as amended in scattered sections of 2 U.S.C., 5 U.S.C. app., 16 U.S.C., 19 U.S.C., 22 U.S.C., 23 U.S.C., 26 U.S.C., 31 U.S.C., 38 U.S.C., and 49 U.S.C.).

<sup>2</sup> See Appendix VI for a detailed listing of recent TIGTA reports and associated findings.



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**Appendix II**

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**Appendix III**

*Report Distribution List*

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Associate Chief Information Officer, Enterprise Services OS:CIO:E  
Director, Stakeholder Management Division OS:CIO:SM  
Deputy Associate Chief Information Officer, Business Integration OS:CIO:B:BI  
Deputy Associate Chief Information Officer, Program Management OS:CIO:B:PM  
Deputy Associate Chief Information Officer, Systems Integration OS:CIO:B:SI  
Chief Counsel CC  
National Taxpayer Advocate TA  
Director, Office of Legislative Affairs CL:LA  
Director, Office of Program Evaluation and Risk Analysis RAS:O  
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Audit Liaisons:  
    Associate Chief Information Officer, Business Systems Modernization OS:CIO:B  
    Manager, Program Oversight Office OS:CIO:SM:PO



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**Appendix IV**

*Internal Revenue Service Modernization  
Projects and Status*

Table 1 presents the modernization projects initiated by the Internal Revenue Service (IRS) and the IRS' status of these projects as of June 6, 2005.

**Table 1: IRS Modernization Projects**

<b>Project Name</b>	<b>Year Initiated/ Year Launched</b>	<b>Project Description</b>	<b>Project Status per the IRS</b>
Custodial Accounting Project	Initiated 1999/ Not Launched	Uses a data warehousing approach for storing, analyzing, and reporting taxpayer accounts and collections information.	Canceled February 2005.
Infrastructure Shared Services:  Security and Technology Infrastructure Release	Initiated 1999/ Launched 2002	Provides a customer-focused technical infrastructure for secure telephony and electronic interaction among employees, tax practitioners, and taxpayers.	<ul style="list-style-type: none"> <li>• Provides secure Internet solutions for registered and employee users' and related registration processes, security access controls, intrusion detection, and audit trail processing.</li> <li>• Is critical to the success of the Integrated Financial System (IFS), e-Services, Internet Refund/Fact of Filing (IRFoF), Modernized e-file (MeF), and Internet Employee Identification Number projects that rely on secure, robust portal access.</li> <li>• Supports the acquisition, installation, and operation of the development and test environments that support all modernization initiatives. The increased stability of the Development, Integration, and Test Environment and timely acquisition</li> </ul>



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Project Name	Year Initiated/ Year Launched	Project Description	Project Status per the IRS
Security and Technology Infrastructure Release (continued)			of hardware/software to support project schedules has contributed significantly to improved project performance.
Enterprise Systems Management	Initiated 2000/ Launched 2002	Executes a strategy to provide network and systems management to improve the information technology infrastructure availability and performance.	<ul style="list-style-type: none"> <li>• Provides enterprise systems management and monitoring of the e-Services, IFS, MeF, and IRFoF projects and core infrastructure systems.</li> <li>• Gathers information and provides appropriate response through monitors at the component, business, and enterprise levels.</li> <li>• Provides reliability, high availability, and optimal performance of complex e-business infrastructure and applications, helping to meet and exceed both internal and external service level agreements and reducing total cost of ownership.</li> <li>• Allows for proactive identification and resolution of information technology problems before they affect business performance.</li> </ul>
Customer Communications	Initiated 1999/ Launched 2001	Improves communications infrastructure, including telephone call management, call routing, and customer self-service applications.	<ul style="list-style-type: none"> <li>• 68,000 calls in one 3-minute period during initial week (coincided with start of Advanced Tax Refund of 2001).</li> <li>• 50 percent reduction in waiting time for assistants to answer calls.</li> <li>• 50 percent reduction in abandoned calls.</li> <li>• More accurate prerouting of calls.</li> </ul>



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Project Name	Year Initiated/ Year Launched	Project Description	Project Status per the IRS
Customer Relationship Management Exam	Initiated 1999/ Launched 2001	Provides standard tax computation software to Large and Mid-Size Business (LMSB) Division revenue agents.	<ul style="list-style-type: none"> <li>• Deployed to almost 4,000 Large/Medium/Small Business revenue agents.</li> <li>• Taxpayers can independently verify a revenue agent's computations.</li> <li>• Allows for "what-if" computations to better use the examiners' and taxpayers' time.</li> </ul>
Customer Account Data Engine (CADE)	Initiated 2000/ Launched 2004	Provides an online, modernized data infrastructure that will house the authoritative taxpayer account and return data.	<ul style="list-style-type: none"> <li>• CADE Release 1.1 went into production the week of July 12, 2004, processing a subcomponent of Income Tax Returns for Single and Joint Filers With No Dependents (Form 1040EZ) from the 2004 Filing Season<sup>1</sup> and issuing refunds over 50 percent faster than the legacy Master File.<sup>2</sup></li> <li>• The processing of returns in the CADE marks the first time in 40 years that American tax returns have been processed in a system other than the Master File.</li> <li>• CADE Release 1.2 went into production on January 18, 2005, for the 2005 Filing Season. It was delivered on time and on budget, and it is currently stable and processing as expected.               <ul style="list-style-type: none"> <li>○ Cycle time from filing to refund issuance has been significantly reduced to less than 5 days for electronically filed Forms 1040EZ.</li> </ul> </li> </ul>

<sup>1</sup> The period from January through mid-April when most individual income tax returns are filed.

<sup>2</sup> The IRS database that stores various types of taxpayer account information. This database includes individual, business, and employee plans and exempt organizations data.



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Project Name	Year Initiated/ Year Launched	Project Description	Project Status per the IRS
CADE (continued)			<ul style="list-style-type: none"> <li>○ Over 1.4 million returns have been posted to CADE Release 1.2, with over \$424,000,000 in refunds generated (as of 5/27/2005).</li> <li>● Have begun to quantify taxpayer savings due to decreased cycle time in CADE processing.               <ul style="list-style-type: none"> <li>○ \$47,000 in potential earned interest for direct deposit (3.5 days v. 7 days).</li> <li>○ \$144,000 in potential earned interest for paper processing (on average 7 days quicker).</li> <li>○ \$1.73 million in Refund Anticipation Loan fees eliminated by CADE processing.</li> </ul> </li> </ul>
e-Services	Initiated 2000/ Launched 2003-2004	Focuses on revolutionizing the way taxpayers transact and communicate with the IRS.	<ul style="list-style-type: none"> <li>● Over 87,000 online registration participants of the Registered User Portal.</li> <li>● Over 133,000 Electronic Return Originator applications for <i>e-file</i>.</li> <li>● Increase in <i>e-filing</i> by practitioners in 2004 above expected growth trend, and operational efficiencies through use of online services through the Registered User Portal, amounted to nearly \$5 million in process savings for the IRS.</li> <li>● Over 197,000 online requests for Preparer Taxpayer Identification Numbers (TIN).</li> <li>● Over 42 million bulk TIN match requests processed.</li> <li>● Over 1.5 million interactive TIN match requests since launch.</li> <li>● The TIN matching tool in the current suite of e-Services applications has uncovered over \$8M in unpaid taxes on Miscellaneous Income (Form 1099 series).</li> </ul>



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Project Name	Year Initiated/ Year Launched	Project Description	Project Status per the IRS
e-Services (continued)			<ul style="list-style-type: none"> <li>• The Transcript Delivery System has processed over 80,000 requests for transcripts via the Registered User Portal and approximately 22,000 via the Employee User Portal (EUP) since launch on May 16, 2005.</li> <li>• Over 20,000 Power of Attorney and Declaration of Representative (Form 2848) requests have been received through Disclosure Authorization.</li> <li>• Over 9,000 users are now using the EUP for handling transcript requests.</li> <li>• Received and processed over 5,200 requests via Electronic Account Resolution.</li> <li>• Total operational savings (print/mail/labor costs) of over \$668,000 (as of 6/6/2005).</li> </ul>
Human Resources (HR) Connect	Initiated 2001/ Launched 2002	Delivers an enterprise solution to allow IRS employees to access and manage their human resources information online.	<ul style="list-style-type: none"> <li>• All 109,000 IRS employee accounts are now on HR Connect; 56,703 employees have authenticated (registered) on the system.</li> <li>• Accessible by kiosks for campus<sup>3</sup> employees who do not have desktop access. All kiosks are to be in place by January 2006.</li> <li>• HR Connect has recently upgraded the software platform to PeopleSoft 8.3<sup>®</sup>; enhancements include increased employee self-service functionality and additional management reports.</li> <li>• HR Connect Workforce Analytics offers management information to each business unit based on its organizational requirements (e.g., the status of the workforce, vacancies,</li> </ul>

<sup>3</sup> The campuses are the data processing arm of the IRS. They process paper and electronic submissions, correct errors, and forward data to the Computing Centers for analysis and posting to taxpayer accounts.



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Project Name	Year Initiated/ Year Launched	Project Description	Project Status per the IRS
Human Resources (HR) Connect (continued)			<p>upcoming retirements, and pending personnel actions are available at each management level).</p> <ul style="list-style-type: none"> <li>• Cited by the IRS Commissioner as a factor in the redirection of roughly 750 staff years to enforcement.</li> <li>• The Department of the Treasury was selected as 2004 Computerworld Honors Laureate for HR Connect development and implementation.</li> </ul>
Integrated Financial System (IFS)	Initiated 2001/ Release 1 launched in 2004	Operates as the new IRS accounting system, replacing the IRS' core financial systems, including expenditure controls, accounts payable, accounts receivable, general ledger, budget formulation, and purchasing controls.	<ul style="list-style-type: none"> <li>• Achieved initial operating capability on November 10, 2004, and achieved full operating capability on January 31, 2005.</li> <li>• Prior year data have been converted, and over 1,700 end users have been trained and are using the IFS daily.</li> <li>• 100 percent of the backlogged invoices created during the cutover period have been paid.</li> <li>• Successfully processed payroll data for the first 12 pay periods. All IFS databases retain current payroll information.</li> <li>• Over 89,000 procurement commitments, obligations, and receipt/acceptance documents had been processed through May 30, 2005.</li> <li>• The monthly Statement of Transactions (Form SF-224) has been submitted to the Department of the Treasury on time since going live in November 2004.</li> <li>• The monthly accounting report has been submitted to the Department of the Treasury on time, within the 3-day close time period, since the IFS went live in November 2004.</li> </ul>



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<b>Project Name</b>	<b>Year Initiated/ Year Launched</b>	<b>Project Description</b>	<b>Project Status per the IRS</b>
Internet Refund/Fact of Filing (IRFoF)	Initiated 2001/ Launched 2002	Improves customer self-service to the taxpayer by providing instant refund status information and instructions for resolving refund problems to taxpayers with Internet access.	<ul style="list-style-type: none"> <li>• Processed 26 million refund status/fact of filing inquiries this year (as of 5/25/2005); successful completion rate of 78.4 percent.</li> <li>• For the 2005 Filing Season, “Where’s My Refund” reduced telephone refund call volumes by nearly 24 percent.</li> <li>• Thirty-two percent of all refund inquiry contacts are handled by the IRFoF application via the Internet.</li> <li>• Modest reduction of IRS telecommunications costs (about \$250,000).</li> <li>• Every 1,000 IRFoF contacts eliminate 1,500 – 2,000 refund assistance calls.</li> </ul>
Advance Child Tax Credit	Initiated 2002/ Launched 2003	Modifies the IRFoF application to provide taxpayers with Advance Child Tax Credit refund status on the Internet.	<ul style="list-style-type: none"> <li>• 15.5 million inquiries in 2003; 12.3 million inquiries from October 2003 to October 2004.</li> <li>• Peak date 1.1 million inquiries.</li> <li>• Application served intended purpose and life cycle ended December 31, 2004.</li> </ul>
Internet Employee Identification Number (EIN)	Initiated 2002/ 2003	Allows businesses and taxpayers to apply for and receive EINs over the Internet.	<ul style="list-style-type: none"> <li>• 3.42 million Internet EIN applications received as of 05/21/2005.</li> </ul>
Customer Account Management	Initiated 2002/ Not Launched	Interfaces the redesigned business processes to be used on a daily basis by IRS customer service representatives. Due to budget constraints, the project has not been funded since Fiscal Year (FY) 2003.	<ul style="list-style-type: none"> <li>• Suspended.</li> </ul>



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<b>Project Name</b>	<b>Year Initiated/ Year Launched</b>	<b>Project Description</b>	<b>Project Status per the IRS</b>
Filing and Payment Compliance (F&PC)	Initiated 2001/ Not Launched	Improves the processes and technologies that support the IRS' filing compliance and collection activities and manages the associated organizational change.	<ul style="list-style-type: none"> <li>• Release 1 will provide infrastructure, processes, and organizational structure to implement the law authorizing private debt collection.<sup>4</sup></li> <li>• Release 1.1, scheduled for January 2006, will require primarily manual processes, given the development time and requirements for the F&amp;PC system. A contract was awarded for the software systems support on March 24, 2005; operations sites were selected on March 31, 2005; Request for Proposal was issued to vendors on April 27, 2005.</li> <li>• Release 1.2 will move the Commercial Off-the-Shelf application from a stand-alone server into the IRS Enterprise Architecture.</li> <li>• Release 1.3 will provide expanded functionality that enables delivery of the full volume of casework.</li> <li>• Release 2 will provide new collection tools to call centers and campuses.</li> <li>• Release 3 will provide new collection tools to field operations.</li> </ul>

<sup>4</sup> American Jobs Creation Act of 2004, Pub. L. No. 108-357, 118 Stat. 1418 (2004).



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Project Name	Year Initiated/ Year Launched	Project Description	Project Status per the IRS
Modernized e-File (MeF)	Initiated 2002/ Launched 2004	Develops the modernized, web-based platform for filing IRS forms electronically.	<ul style="list-style-type: none"> <li>• Launched Release 1 February 2004 covering the U.S. Corporation Income Tax Return (Form 1120) and U.S. Income Tax Return for an S Corporation (Form 1120S) with 53 forms and schedules and the U.S. Income Tax Return for Certain Political Organizations (Form 1120-POL), Return of Organization Exempt From Income Tax (Form 990), Short Form Return of Organization Exempt From Income Tax (Form 990-EZ), and Application for Extension of Time To File an Exempt Organization Return (Form 8868).</li> <li>• Launched Release 2 August 2004 enabling the electronic filing of 43 additional forms and schedules submitted by the largest corporations.</li> <li>• Release 3.1 was delivered January 2005, for second season of <i>e-filing</i>, accommodating new LMSB Division forms the Income (Loss) Reconciliation for Corporations With Total Assets of \$10 Million or More (Schedule M-3), the Return of Private Foundation or Section 4947(a)(1) Nonexempt Charitable Trust Treated as a Private Foundation (Form 990-PF), and Application for Automatic Extension of Time To File Corporation Income Tax Return (Form 7004). Release 3.1 moved to the Information Technology Services function on April 1, 2005.</li> <li>• Over 192,000 accepted MeF project return submissions were received – twice the number of projected receipts.</li> <li>• Over 11,000 participating Electronic Return Originators (Forms 1120 and 990).</li> </ul>



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Project Name	Year Initiated/ Year Launched	Project Description	Project Status per the IRS
MeF (continued)			<ul style="list-style-type: none"> <li>• Error fallout rates for the MeF project are significantly lower than those for paper processing. For corporate returns alone, the MeF project has a fallout rate of 6 percent as compared to a 17 percent fallout rate for paper processing.</li> <li>• Over \$9 million of real business savings to the American taxpayers and to the IRS for FY 2005 (as of June 6, 2005):               <ul style="list-style-type: none"> <li>○ Savings to the taxpayer in tax preparation fees, postage, and storage.</li> <li>○ Savings to the IRS in operational efficiencies in return processing, storage, and international duplicate matching.</li> </ul> </li> <li>• In January 2005, the MeF project was selected as one of the “Top 25 Finalists” for the fifth annual Excellence.Gov awards sponsored by Industry Advisory Group’s eGov Shared Interest Group.</li> </ul>

*Source: The IRS Business Systems Modernization Office and its online web site.*



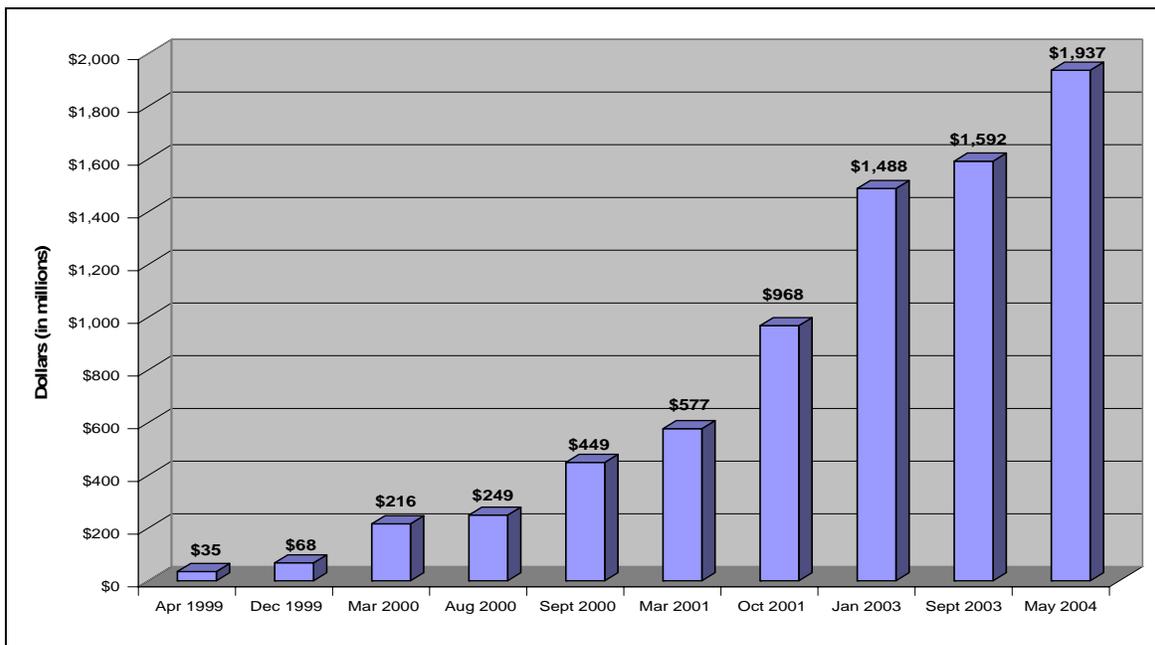
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Appendix V

Business Systems Modernization Funding Timeline

Chart 1 depicts cumulative funding received by the Internal Revenue Service (IRS) Business Systems Modernization (BSM) program for contractor costs.

Chart 1: BSM Program Funding Timeline (dollars are cumulative)



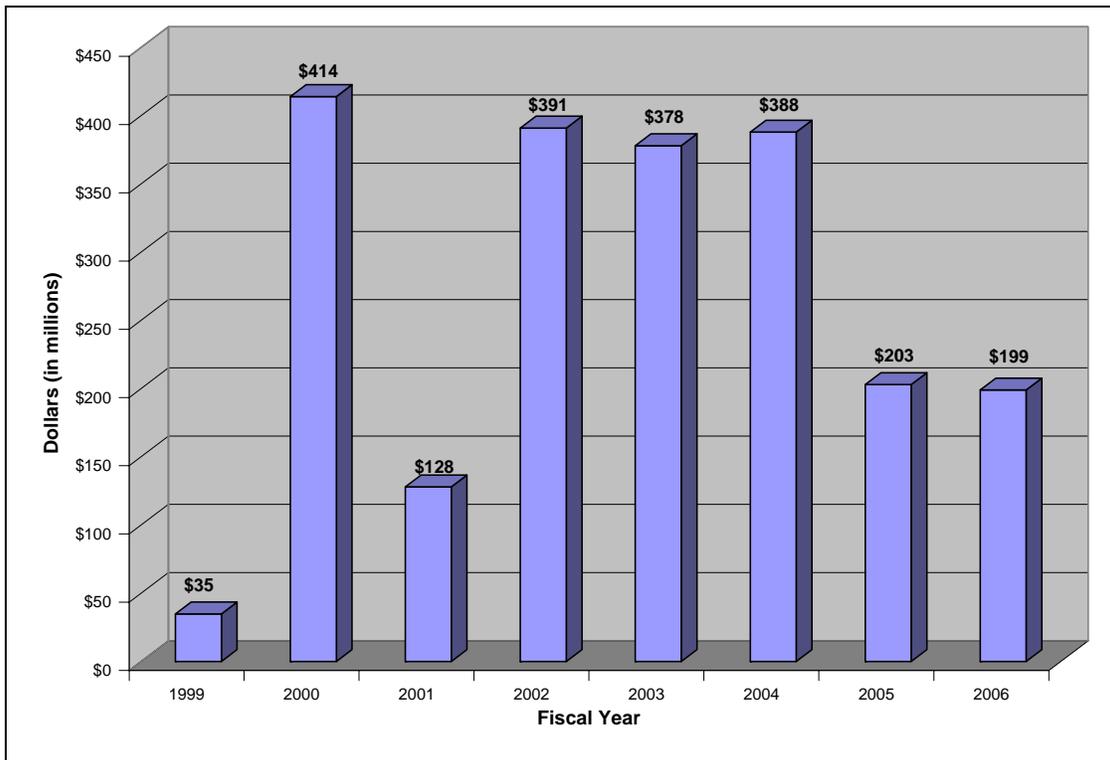
Source: BSM expenditure plans.



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Chart 2 depicts a timeline of the funding received annually by the BSM program for program management and development of business and infrastructure projects.

**Chart 2: BSM Program Funding by Fiscal Year**



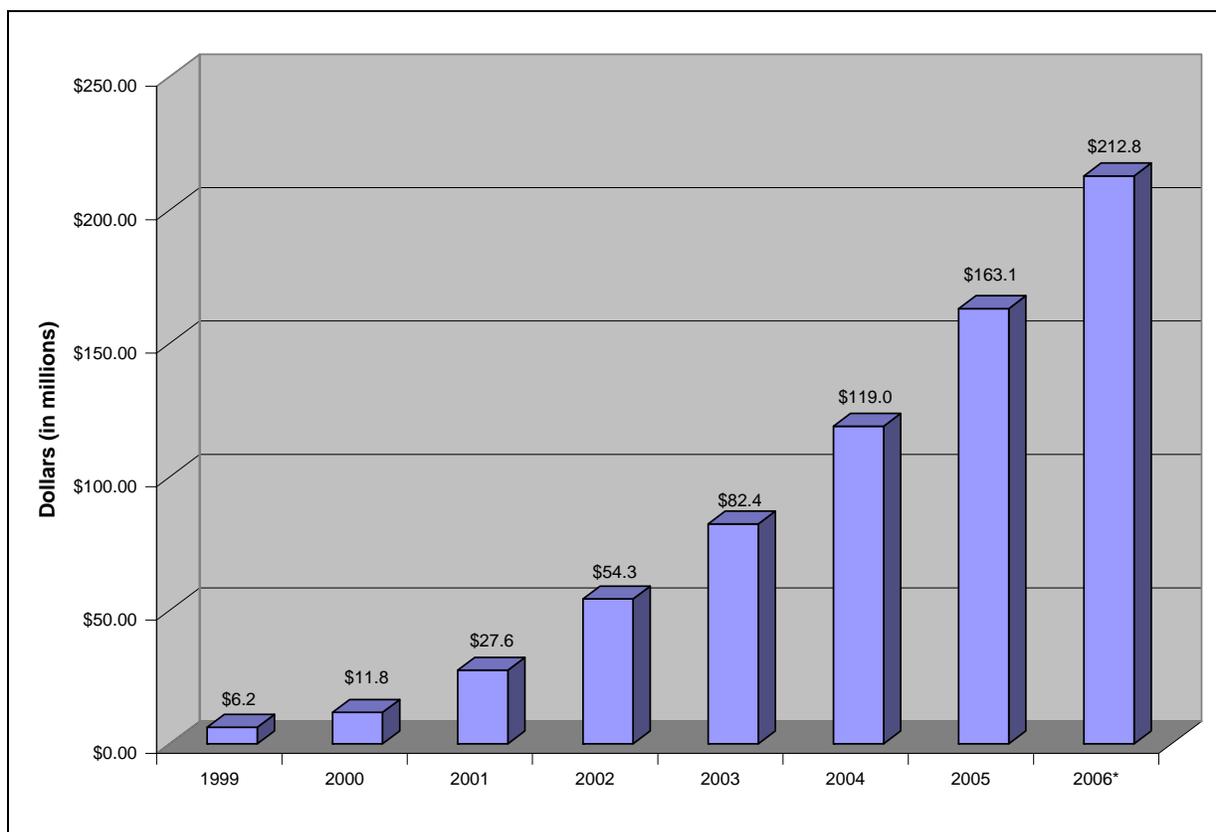
*Source: BSM expenditure plans. NOTE – The 2006 amount has not yet been appropriated; the figure is from the 2006 IRS Congressional Justification.*



## Annual Assessment of the Business Systems Modernization Program

Chart 3 depicts the cumulative funding received by the BSM program for internal (noncontractor) costs of managing BSM activities. The BSM Office (BSMO) stated approximately 25 percent of its noncontractor budget since Fiscal Year (FY) 2001 was used to support non-BSM program activities in the IRS.

**Chart 3: Internal (noncontractor) BSM Funding Timeline (dollars are cumulative)**



Source: FY 2005 IRS Congressional Justification and BSM budget records. \* NOTE – The 2006 estimate is based on the March 9, 2005, BSM Program Management Review (314 Full-Time Equivalents (FTE))<sup>1</sup> multiplied by the 2005 cost per FTE of \$158,097).

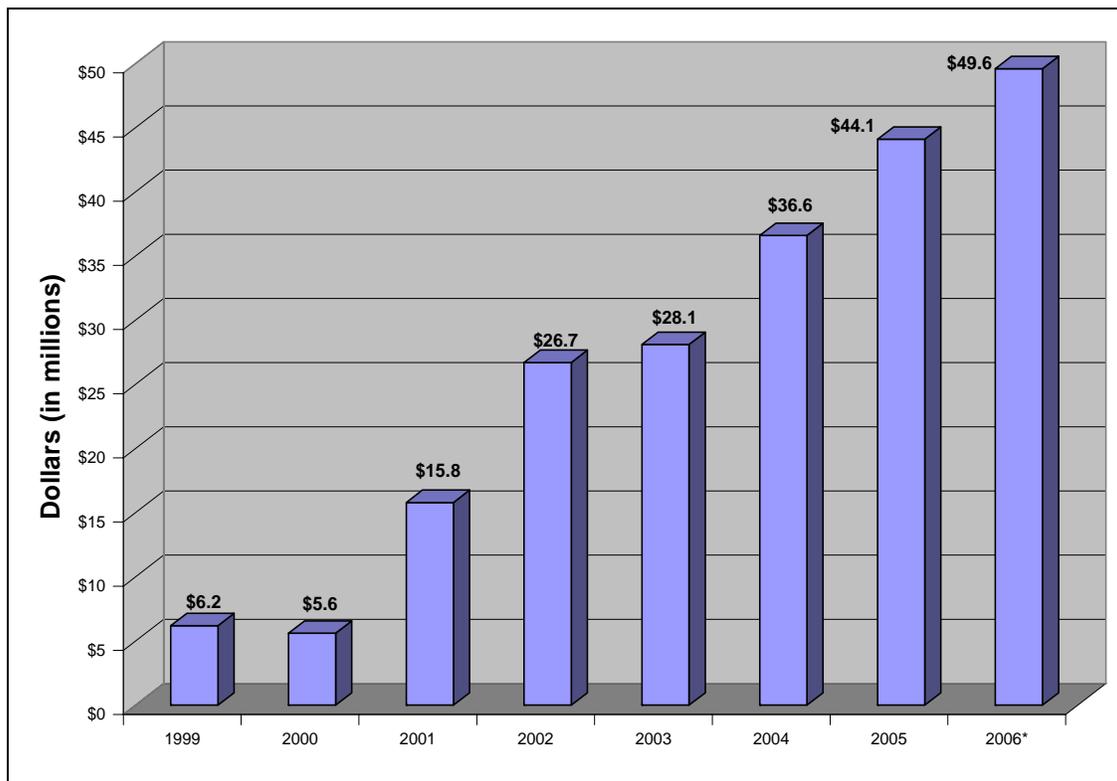
<sup>1</sup> An FTE is a measure of labor hours in which 1 FTE is equal to 8 hours multiplied by the number of compensable days in a particular fiscal year. For FY 2004, 1 FTE was equal to 2,096 staff hours. For FY 2005, 1 FTE is equal to 2,088 staff hours.



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Chart 4 depicts a timeline of the funding received annually by the BSM program for internal (noncontractor) costs of managing BSM activities.

**Chart 4: Internal (noncontractor) BSM Costs by Fiscal Year**



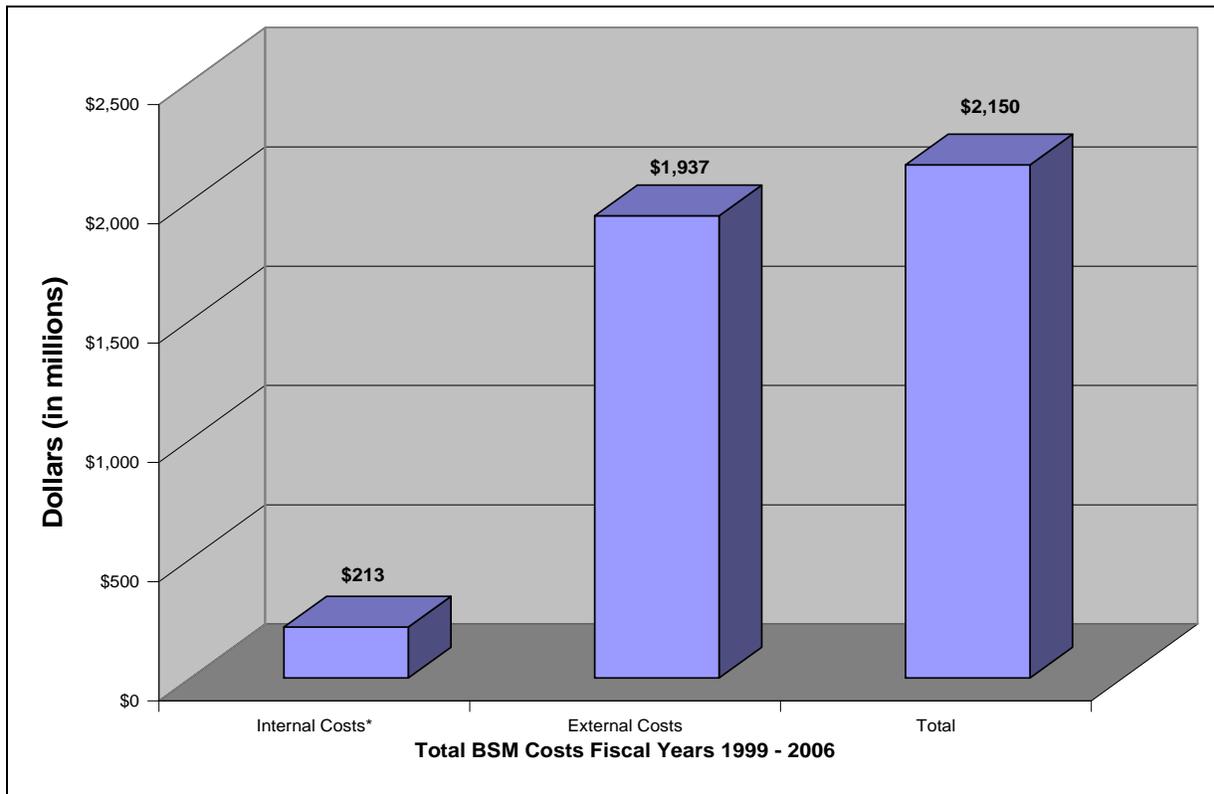
Source: FY 2005 IRS Congressional Justification and BSMO budget estimates. \* NOTE – The 2006 estimate is based on the March 9, 2005, BSM Program Management Review (314 FTEs multiplied by the 2005 cost per FTE of \$158,097).



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Chart 5 depicts the funding received by the BSM program for internal (noncontractor) and external (contractor) costs of managing BSM activities.

**Chart 5: Internal and External BSM Program Costs (in millions)**



Source: *BSM Spending Plan; Transportation, Treasury, Independent Agencies, and General Government Appropriations Act, 2005, H.R. 5025; FY 2005 IRS Congressional Justification; and February 14, 2005, discussion with the Associate Chief Information Officer, BSM.* \*NOTE – The BSMO stated approximately 25 percent of its noncontractor budget since FY 2001 was used to support non-BSM program activities in the IRS.



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**Appendix VI**

*Recent Treasury Inspector General for Tax  
Administration Reports and Associated Findings on  
Business Systems Modernization*

Table 1 lists Treasury Inspector General for Tax Administration (TIGTA) reports issued from August 2004 through May 2005 and associated findings.

**Table 1: Recent TIGTA Reports With Findings**

Report Title	Findings			
<i>The Integrated Financial System Project Team Needs to Resolve Transition Planning and Testing Issues to Increase the Chances of a Successful Deployment</i> (Reference Number 2004-20-147, dated August 2004)	Project testing practices can be improved.	Additional improvements in transition planning are needed.		
<i>The Office of Release Management Can Improve Controls for Modernization Program Coordination</i> (Reference Number 2004-20-157, dated September 2004)	The integrator role is not clearly defined in the modernization program.	The Release Scheduling Office does not have formally documented procedures to direct its activities.	Testing responsibilities are not always defined clearly in the Integration Test and Deployment Office's testing procedures.	
<i>To Ensure the Customer Account Data Engine's (CADE) Success, Prescribed Management Practices Need to Be Followed</i> (Reference Number 2005-20-005, dated November 2004)	Significant software changes were added to the CADE Release 1.1 and were not adequately tested.	Improvements to the CADE Operator's Guide need to be completed.	Manual processes within the CADE Release 1.1 need to be automated for future releases.	The CADE program does not have a dedicated system architect, and disaster recovery capabilities were not tested.
<i>The Internal Revenue Service Should Ensure the Root Causes of Business Systems Modernization Performance Problems Are Successfully Addressed</i> (Reference Number 2005-20-014, dated December 2004)	The Business Systems Modernization (BSM) Challenges Plan did not address all study recommendations.	The BSM Challenges Plan did not include measures to determine whether actions taken were successful.		



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Report Title	Findings			
<i>System Requirements Were Not Adequately Managed During the Testing of the Custodial Accounting Project</i> (Reference Number 2005-20-019, dated December 2004)	System requirements were not adequately managed during testing.	The main system performance requirement will not be tested prior to deployment.	Recommendations for improvement have not been implemented.	
<i>The Modernization Program Is Establishing a Requirements Management Office to Address Requirements Development and Management Problems</i> (Reference Number 2005-20-023, dated January 2005)	Industry guidance and prior audit results will assist the proposed Requirements Management Office in effectively developing and managing project requirements.	Detailed cost and resource analyses will help the proposed Requirements Management Office determine the extent of services it can offer.		
<i>The Internal Revenue Service Has Appropriate Processes to Accept Modernization Program Software From Developers</i> (Reference Number 2005-20-024, dated February 2005)	The IRS' rights to modernization source code material are protected.			
<i>The Chief Information Officer Is Taking Steps to Timely Complete Corrective Actions to Treasury Inspector General for Tax Administration Reports</i> (Reference Number 2005-20-071, dated April 2005)	Some corrective actions are not being resolved timely.	All open corrective actions are significant and can be prioritized.		
<i>While Many Improvements Have Been Made, Continued Focus Is Needed to Improve Contract Negotiations and Fully Realize the Potential of Performance-Based Contracting</i> (Reference Number 2005-20-083, dated May 2005)	Justifications did not always provide adequate detail for choosing a nonfirm fixed-price contract type.	Contracting provisions that could balance risk between the Internal Revenue Service and the contractor were used inconsistently.	Consistent application of best practices could further improve the contract negotiations process.	

Source: TIGTA audit reports issued from April 2004 through March 2005.



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## **Appendix VII**

### *Enterprise Life Cycle Overview*

The Enterprise Life Cycle (ELC) defines the processes, products, techniques, roles, responsibilities, policies, procedures, and standards associated with planning, executing, and managing business change. It includes redesign of business processes; transformation of the organization; and development, integration, deployment, and maintenance of the related information technology applications and infrastructure. Its immediate focus is the Internal Revenue Service (IRS) Business Systems Modernization (BSM) program. Both the IRS and the PRIME contractor<sup>1</sup> must follow the ELC in developing/acquiring business solutions for modernization projects.

The ELC framework is a flexible and adaptable structure within which one plans, executes, and integrates business change. The ELC process layer was created principally from the Computer Sciences Corporation's Catalyst<sup>®</sup> methodology.<sup>2</sup> It is intended to improve the acquisition, use, and management of information technology within the IRS; facilitate management of large-scale business change; and enhance the methods of decision making and information sharing. Other components and extensions were added as needed to meet the specific needs of the IRS BSM program.

#### **ELC Processes**

A process is an ordered, interdependent set of activities established to accomplish a specific purpose. Processes help to define what work needs to be performed. The ELC methodology includes two major groups of processes:

**Life-Cycle Processes**, which are organized into phases and subphases and address all domains of business change.

**Management Processes**, which are organized into management areas and operate across the entire life cycle.

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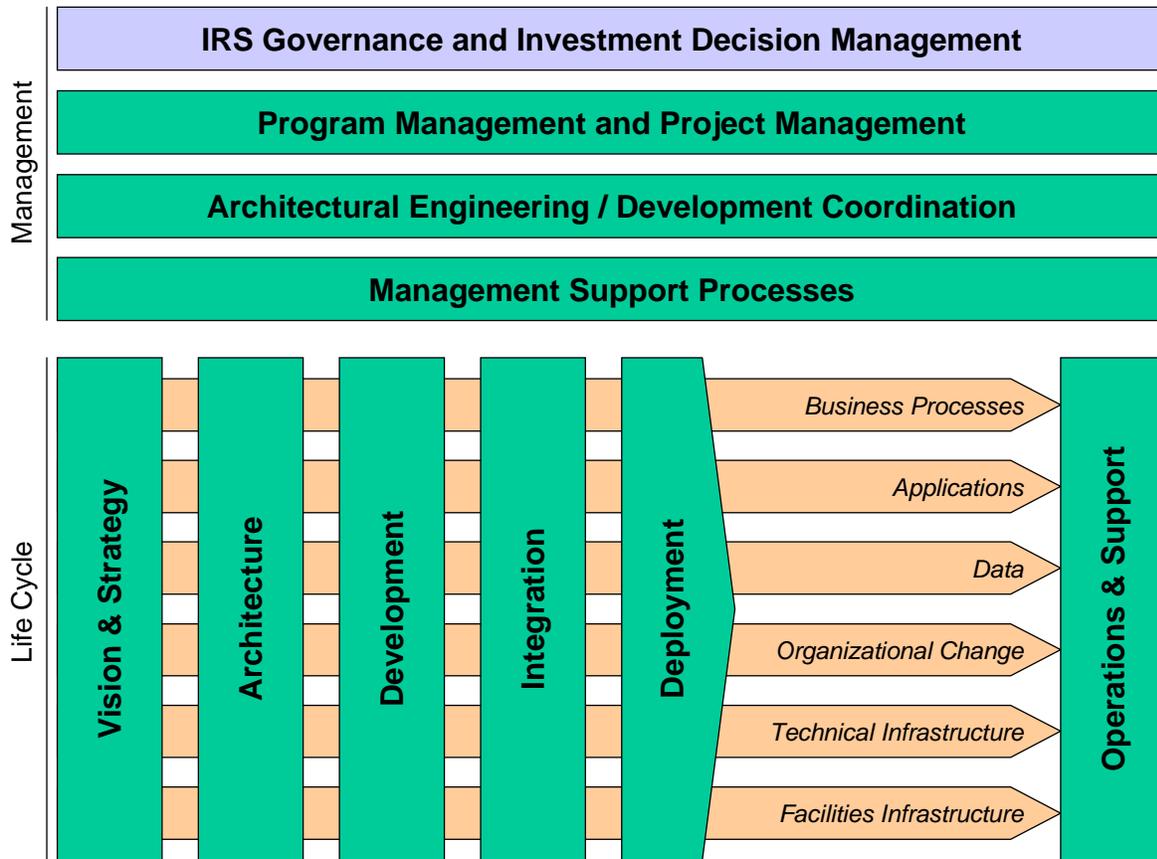
<sup>1</sup> The PRIME contractor is the Computer Sciences Corporation (CSC), which heads an alliance of leading technology companies brought together to assist with the IRS' efforts to modernize its computer systems and related information technology.

<sup>2</sup> The IRS has acquired a perpetual license to Catalyst<sup>®</sup> as part of the PRIME contract, subject to certain restrictions. The license includes rights to all enhancements made to Catalyst<sup>®</sup> by the CSC during the contract period.



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**Enterprise Life-Cycle Processes**



Source: ELC Guide, Page 2-16.

**Life-Cycle Processes**

The life-cycle processes of the ELC are divided into six phases, as described below:

- **Vision and Strategy** - This phase establishes the overall direction and priorities for business change for the enterprise. It also identifies and prioritizes the business or system areas for further analysis.



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## *Annual Assessment of the Business Systems Modernization Program*

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- **Architecture** - This phase establishes the concept/vision, requirements, and design for a particular business area or target system. It also defines the releases for the business area or system.
- **Development** - This phase includes the analysis, design, acquisition, modification, construction, and testing of the components of a business solution. This phase also includes routine planned maintenance of applications.
- **Integration** - This phase includes the integration, testing, piloting, and acceptance of a release. In this phase, the integration team brings together individual work packages of solution components developed or acquired separately during the Development phase. Application and technical infrastructure components are tested to determine if they interact properly. If appropriate, the team conducts a pilot to ensure all elements of the business solution work together.
- **Deployment** - This phase includes preparation of a release for deployment and actual deployment of the release to the deployment sites. During this phase, the deployment team puts the solution release into operation at target sites.
- **Operations and Support** - This phase addresses the ongoing operations and support of the system. It begins after the business processes and system(s) have been installed and have begun performing business functions. It encompasses all of the operations and support processes necessary to deliver the services associated with managing all or part of a computing environment.

The Operations and Support phase includes the scheduled activities, such as planned maintenance, systems backup, and production output, as well as the nonscheduled activities, such as problem resolution and service request delivery, including emergency unplanned maintenance of applications. It also includes the support processes required to keep the system up and running at the contractually specified level.

### ***Management Processes***

Besides the life-cycle processes, the ELC also addresses the various management areas at the process level. The management areas include:

- **IRS Governance and Investment Decision Management** - This area is responsible for managing the overall direction of the IRS, determining where to invest, and managing the investments over time.
- **Program Management and Project Management** - This area is responsible for organizing, planning, directing, and controlling the activities within the program and its



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subordinate projects to achieve the objectives of the program and deliver the expected business results.

- **Architectural Engineering/Development Coordination** - This area is responsible for managing the technical aspects of coordination across projects and disciplines, such as managing interfaces, controlling architectural changes, ensuring architectural compliance, maintaining standards, and resolving issues.
- **Management Support Processes** - This area includes common management processes, such as quality management and configuration management that operate across multiple levels of management.

### ***Milestones***

The ELC establishes a set of repeatable processes and a system of milestones, checkpoints, and reviews that reduce the risks of system development, accelerate the delivery of business solutions, and ensure alignment with the overall business strategy. The ELC defines a series of milestones in the life-cycle processes. Milestones provide for “go/no-go” decision points in the project and are sometimes associated with funding approval to proceed. They occur at natural breaks in the process where there is new information regarding costs, benefits, and risks and where executive authority is necessary for next phase expenditures.

There are five milestones during the project life cycle:

- **Milestone 1 - Business Vision and Case for Action.** In the activities leading up to Milestone 1, executive leadership identifies the direction and priorities for IRS business change. These guide which business areas and system development projects are funded for further analysis. The primary decision at Milestone 1 is to select BSM projects based on both the enterprise-level Vision and Strategy and the Enterprise Architecture.
- **Milestone 2 - Business Systems Concept and Preliminary Business Case.** The activities leading up to Milestone 2 establish the project concept, including requirements and design elements, as a solution for a specific business area or business system. A preliminary business case is also produced. The primary decision at Milestone 2 is to approve the solution/system concept and associated plans for a modernization initiative and to authorize funding for that solution.



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- **Milestone 3 - Business Systems Design and Baseline Business Case.** In the activities leading up to Milestone 3, the major components of the business solution are analyzed and designed. A baseline business case is also produced. The primary decision at Milestone 3 is to accept the logical system design and associated plans and to authorize funding for development, test, and (if chosen) pilot of that solution.
- **Milestone 4 - Business Systems Development and Enterprise Deployment Decision.** In the activities leading up to Milestone 4, the business solution is built. The Milestone 4 activities are separated by two checkpoints. Activities leading up to Milestone 4A involve further requirements definition, production of the system's physical design, and determination of the applicability of fixed-price contracting to complete system development and deployment. To achieve Milestone 4B, the system is integrated with other business systems and tested, piloted (usually), and prepared for deployment. The primary decision at Milestone 4B is to authorize the release for enterprise-wide deployment and commit the necessary resources.
- **Milestone 5 - Business Systems Deployment and Postdeployment Evaluation.** In the activities leading up to Milestone 5, the business solution is fully deployed, including delivery of training on use and maintenance. The primary decision at Milestone 5 is to authorize the release of performance-based compensation based on actual, measured performance of the business system.



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**Appendix VIII**

*Modernization Project Cost and Schedule Estimates  
and Revisions*

Table 1 provides a comparison of the estimates in the Internal Revenue Service (IRS) Business Systems Modernization (BSM) Expenditure Plans dated May 2004 and February 2005. The IRS revised 6 cost estimates (5 increases and 1 decrease for a net increase of \$28,300,000), and 4 cost estimates remained unchanged. In addition, the IRS revised 8 schedule estimates (increases ranging from 4 months to 14 months), and 2 schedule estimates remained unchanged. The IRS funded these project cost increases through expenditure plan additions and funding previously obtained through project risk adjustments.<sup>1</sup>

**Table 1: Treasury Inspector General for Tax Administration Comparison of BSM Cost and Schedule Estimates Between May 2004 and February 2005**

Project Name	Commitments in May 2004 Expenditure Plan		Commitments in February 2005 Expenditure Plan		Comparison of May 2004 and February 2005 Expenditure Plans	
	Cost (thousands)	Schedule	Cost (thousands)	Schedule	Additional Cost (thousands)	Schedule Revision
Modernized e-File (MeF) Release 3, Milestone 4	\$17,612	03/31/2005	\$33,912	03/31/2006	\$16,300 93 percent	12 mos.
IRS Comment: IRS management advised the MeF cost and schedule increases were due to adding systems requirements at the direction of the Department of the Treasury and Office of Management and Budget to allow for the filing of State tax returns.						
MeF Release 4, Milestone 3	\$8,000	06/30/2005	\$8,000	10/31/2005	\$0 0 percent	4 mos.

<sup>1</sup> To allow for changes around cost estimates, the IRS has included a “risk adjustment” amount for each project or activity area.



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Project Name	Commitments in May 2004 Expenditure Plan		Commitments in February 2005 Expenditure Plan		Comparison of May 2004 and February 2005 Expenditure Plans	
	Amount	Due Date	Amount	Due Date	Amount	Change
e-Services Milestone 5	\$32,500	04/30/2005	\$32,500	08/31/2005	\$0 0 percent	4 mos.
IRS Comment: IRS management advised the e-Services cost and schedule increases were due to adding significant scope to the project such as a software upgrade and expanded requirements.						
e-Services (level of effort)	\$7,400	04/30/2005	\$12,100	08/31/2005	\$4,700 64 percent	4 mos.
IRS Comment: See above e-Services comment.						
Collection Contract Support (CCS), Milestones 3 and 4A	\$7,250	01/31/2005	\$13,250	03/31/2006	\$6,000 83 percent	14 mos.
IRS Comment: IRS management advised the CCS cost and schedule increases were caused by the need to reduce original estimates due to budget cuts and the Congress passing the Private Collection Agency legislation late in Fiscal Year 2004, which delayed work on the project.						
CCS Milestone 4B	\$8,250	05/01/2006	\$0	01/01/2007	\$0	8 mos.
IRS Comment: See above CCS comment.						
Customer Account Data Engine (CADE) Release 1, Milestone 5	\$17,450	12/31/2004	\$17,450	12/31/2005	\$0 0 percent	12 mos.
CADE 2006 Filing Season <sup>2</sup>	\$27,000	12/31/2005	\$28,300	12/31/2005	\$1,300 5 percent	0 mos.

<sup>2</sup> The period from January through mid-April when most individual income tax returns are filed.



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Project Name	Commitments in May 2004 Expenditure Plan		Commitments in February 2005 Expenditure Plan		Comparison of May 2004 and February 2005 Expenditure Plans	
CADE Release 2, Milestone 4A	\$15,000	11/30/2005	\$7,000	06/30/2006	-\$8,000	7 mos.
IRS Comment: IRS management advised the decision was made to move \$8 million to a level of effort contract.						
CADE Release 2, (level of effort)			\$8,000	12/31/2005	\$8,000	0 mos.
IRS Comment: See above CADE comment.						
<b>Total Dollar Increase for Ongoing Projects</b>	<b>\$140,462</b>		<b>\$160,512</b>		<b>\$28,300 20 percent</b>	

Source: May 2004 and February 2005 BSM Expenditure Plans.



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**Appendix IX**

*Schedule Delays and Cost Increases*

Table 1 lists schedule delays and cost increases for various Internal Revenue Service (IRS) Business Systems Modernization (BSM) projects included in the Government Accountability Office's November 2004 report.

**Table 1: IRS BSM Project Cost/Schedule Variance Summary**

Project	Reported/Revised Estimated Cost (in thousands)	Cost Variance (in thousands)	Schedule Variance (in months)
Security and Technology Infrastructure Release 1	\$45,401	+\$8,450	+5
Customer Communications 2001	60,762	+14,562	+9
Customer Relationship Management Exam	9,245	-721	+3
Internet Refund/Fact of Filing	26,432	+12,923	+14
Human Resources (HR) Connect Release 1	10,200	+200	0
Enterprise Systems Management Release 1	26,053	+12,818	+3.5
Modernized e-File Release 1	50,303	+21,057	+6.5
e-Services	148,820	+102,271	+18
Customer Account Data Engine (CADE) Release 1	182,774	+118,129	+30
CADE Business Rules	38,102	+11,902	+18
Integrated Financial System (IFS) Release 1	173,580	+73,710	+15 <sup>1</sup>
Custodial Accounting Project (CAP) Release 1 (Canceled)	138,950	+\$91,789	+33 <sup>2</sup>

*Source: Business Systems Modernization: IRS's Fiscal Year 2004 Expenditure Plan (GAO-05-46, dated November 2004).*

<sup>1</sup> Project schedule under review. Work on the IFS has been suspended.

<sup>2</sup> Project schedule under review. Work on the CAP has been suspended.



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**Appendix X**

*Management's Response to the Draft Report*



CHIEF INFORMATION OFFICER

DEPARTMENT OF THE TREASURY  
INTERNAL REVENUE SERVICE  
WASHINGTON, D.C. 20224

July 22, 2005

RECEIVED  
JUL 22 2005

MEMORANDUM FOR DEPUTY INSPECTOR GENERAL FOR AUDIT

FROM: W. Todd Grams *WTB*  
Chief Information Officer

SUBJECT: Management Response to Draft Audit Report – Annual  
Assessment of the Business Systems Modernization Program –  
Audit #200520011 (ECMS-0506-6DRNWNMW)

Thank you for the opportunity to review the subject draft audit report dated June 24, 2005. We appreciate the additional meetings we had with your audit team to discuss some of the report's observations. As a result of these meetings, some of our suggested changes were incorporated into the draft report.

We appreciate you acknowledging our capability to meet our short-term goals, and we are grateful for your ability to recognize the complexity of the Business Systems Modernization (BSM) program as well as the progress we have made in areas such as:

- Deploying projects that provide value to taxpayers.
- Building the infrastructure needed to support our modernization projects.
- Developing an enterprise architecture that includes all IRS business units, processes, programs and operations; and provides details to help guide current and future modernization initiatives.

We would like to offer the following observations regarding the schedule and cost of the projects during fiscal year 2004. We had the most successful year ever for BSM. While we agree with your observation that we have a lot of work ahead of us, our success in 2004 can be measured by:

- The number of projects we delivered.
- The schedule and cost targets we hit.
- The substantial program management improvements we made.



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We delivered the first release of the Customer Account Data Engine (CADE) project, allowing the IRS to process an initial set of the simplest tax returns on a new computer system for the first time in 40 years. We launched our new Integrated Financial System (IFS), and declared it the IRS' financial accounting system of record. We deployed a full suite of e-Services products, which provide tax professionals and businesses with new Web-based tools that dramatically improve their interface with the IRS. Additionally, we released Modernized e-File, whereby corporations and tax-exempt organizations can file their annual income tax and information returns electronically.

We made significant improvements in our cost estimating and scheduling. In the Fall/Winter of 2003 (during the annual program planning process), we re-baselined the cost estimates and delivery schedules for some of the BSM projects, setting realistic deadlines and cost estimates based on known conditions which affect development activities and which are under our span of control. Since then, we have dramatically improved both our cost and scheduling performance. With the exception of one (the Integrated Financial System), we delivered all projects on time (either early or within a few weeks of schedule) and within budget – a major accomplishment.

Despite much discussion over methodologies, we want to emphasize that the re-scoping and subsequent re-baselining of some of our projects were driven by project changes that were out of BSM's span of control, e.g., legislation delays, budget cuts, project release revisions, and OMB mandates. Attachment 1 provides the data to support these observations.

We also continue to make significant progress in four key areas that align with the primary challenges that the IRS and its contractors must meet to achieve the program success outlined in the audit report. For example:

- The 2005 modernization budget reflects a portfolio which more closely aligns the BSM workload with the IRS' and PRIME contractor's management capacity.
- The IRS assigned a business unit leader to each project with responsibility for leading the related BSM governance committee, and sharing accountability for delivering the modernization project as stated in their annual performance commitments.
- Commissioner Everson meets monthly with the Chief Operating Officer of Computer Sciences Corporation (CSC) to reinforce the accountability of the contractor to the IRS. By restructuring BSM project contracts with the PRIME, we have shifted an appropriate amount of financial risk to the contractor and tied costs to performance. These steps have resulted in improved contractor performance, as demonstrated in the deliverables in 2004 and the general adherence to costs and schedules.
- We have made great progress in hiring experienced executives and seasoned managers from outside the agency who have expertise in running large-scale IT



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programs and projects. A little over a year ago the mix of leadership at the top of the BSM program consisted of one outside expert and six internal IRS executives. Today, that mix is four outside experienced experts and three internal IRS executives. This mix is a much better balance of the project management and technology talent and tax administration experience needed to successfully run the BSM program.

The progress in these key areas, and our improved cost estimating practices demonstrates that the steps we took in 2004 to improve program performance are having a positive impact. Thus, due to the successful implementation of numerous program management improvements, 2004 did not follow the pattern of cost overruns that had occurred from 1999 through 2003. We also showed a marked improvement in significantly reducing our variances between cost estimates and actual delivery costs from 33 percent in 2002 to 4 percent in 2004.

Additionally, we also took the following steps:

- We established a Requirements Management Office to provide structure, documentation, and methodologies in building and maintaining requirements for each of our projects. With better-developed requirements, we will be able to increase the opportunities for the use of fixed-price contracts.
- We implemented a Resource Capacity Model to maintain appropriate staff levels on project teams during the project's entire acquisition life cycle.
- We updated the Performance Based Contract Statement of Work templates to align with Enterprise Life Cycle changes to Milestone (MS) 4 (i.e., 4A/4B split). MS 4A is the checkpoint at the end of the physical design phase and serves as the point in the project life cycle where fixed price task orders can be negotiated for business systems development and deployment (MS 4B). However, we still face barriers to fixed-price contracting because the IRS cannot control the manner in which funding is released; as funds are incrementally released throughout the year. These barriers inhibit the award of fixed-price task orders since the full funding must be available for commitment and obligation.
- We created a Program Engineering Office and placed engineers on all the projects.
- We expanded our configuration management processes and procedures to include all of the MITS systems, and we built a change control board structure and implemented an Engineering Review Board to manage change for both modernized and legacy systems.
- We developed and implemented a more robust approach to post-milestone and post-implementation reviews. In addition to extending the post-implementation review process, we also look at lessons learned at the end of each project



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milestone. We then retain the results of these comprehensive reviews in a repository that is available to everyone involved with the BSM program.

- We undertook and developed the initial steps to identify and validate the approaches and processes used to better integrate PRIME and IRS test teams. The Combined Systems Integration Testing approach was validated, updated with lessons learned from its first implementation, and it is in execution in the second testing effort.
- We conducted regular monthly reviews of the full BSM program with all accountable parties in the room, including all projects, functional divisions, management process areas, enterprise architecture, and infrastructure projects.
- We began a planning effort to reset our Information Technology Modernization Strategy and approach. As part of this effort, we will be updating the Enterprise Transition Strategy and Release Architectures that are part of the IRS Enterprise Architecture. Our intent is to have the high-level strategy, goals, and plans in place by the end of this fiscal year.

We appreciate your report's Appendix IV which clearly outlines the value delivered by our projects throughout the years. We continue to address the observations and recommendations of your office, and those of the Government Accountability Office, as it is critical that we continue this level of performance in 2005 and beyond.

We are very confident that we have the management focus and discipline in place to ensure that we are "doing things right" as opposed to "doing things fast", such as exiting milestones prematurely. Our ongoing challenge will be balancing the scope and pace of projects consistent with capacity, ensuring that the right people are in place before launching a project, and setting realistic delivery schedules and cost estimates.

We appreciate your continued support and the valuable assistance and guidance from your staff. If you have any questions, please contact me at (202) 622-6800, or members of your staff may contact Judy Mills, Director of the Program Oversight office at (202) 283-4915.



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**Attachment I**

**Comparison of BSM Cost and Schedule Estimates  
between May 2004 and February 2005**

Project Name	Commitments in May 4		Current Estimates/Actual Results Listed in the February 2005		Comparison of May 2004 and Feb-05 Expenditure Plans	
	Cost (thousands)	Schedule	Cost (thousands)	Schedule	Cost Variance (thousands)	Schedule Variance
MeF Release 3.1, Milestone 4	\$17,612	3/31/2005	\$7,539	3/31/2005	(\$10,073)	0 mos. The \$10.1M was reallocated to Rel. 3.2 MS4. Adding Fed/State late in the process for Release 3 required splitting the Release into two separate implementation dates. Release 3.1, Milestone 4 funding of \$17.612M was realigned. \$7.539M remained in Release 3.1 MS 4 and \$10.073M was to Release 3.2, Milestone 4 portion, excluding Fed/State. In FY 2005, IRS allocated an additional \$13.7M to Rel. 3.2 MS 4 for Fed/State capability. The added scope (Fed/State) was approved by all stakeholders.
MeF Release 3.2 Milestone 4	\$0		\$10,073	3/31/2006	\$ 10,073	\$23.8M includes \$10.1M transferred from Rel. 3.1 MS 4 and new FY 2005 funding of \$13.7M for Rel. 3.2 MS4.
MeF Release 3.2 Milestone 4	\$0		\$13,700	3/31/2006	\$0	
MeF Release 4, Milestone 3	\$ 8,000	6/30/2005	\$8,000	10/31/2005	\$0	4 mos. Start date for Release 4 Milestone 3 delayed until FY 2005 funding is approved by Congress.
e-Services Milestone 5	\$32,500	4/30/2005	\$32,500	8/31/2005	\$0	4 mos.
e-Services (level of effort)	\$7,400	4/30/2005	\$12,100	8/31/2005	\$4,700	4 months Significant scope was added to the project that resulted in additional time to the project schedule. Upgrade to software (to PeopleSoft 8.8 as well as People Tools), the expansion of the application process to include Modernized e-File (MeF) roles to grant accessibility to those users, and the Electronic Data Accessing Solution (EDAS) are the significant additions. The government and contractor executed a re-plan to address schedule increases. 4 mos.



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Business Systems Modernization Program*

e-Services Risk Adjustment	\$4,700		\$0		(\$4,700)	As agreed to, project risk adjustment does not count as a variance.
Collection Contract Support (CCS), Milestones 3 and 4A	\$7,500	1/31/2005	\$13,250	3/31/2006	\$0	14 mos. The original F&PC projection was reduced as a result of budget cuts. Congress passed legislation allowing the use of PCAs very late in FY 2004. Subsequently, OMB directed IRS to find additional funding forcing IRS to allocated funding from the Management Reserve.
CCS Milestone 4B	\$8,250	5/1/2006	\$0	1/1/2007	\$0	8 mos. IRS deferred these project activities until FY 2006 due to budget constraints.
CADE Release 1, Milestone 5	\$17,450	6/30/2005	\$17,450	12/31/2005	\$0	6 mos.
CADE Filing Season 2006	\$27,000	12/31/2005	\$28,300	12/31/2005	\$1,300	0 mos.
CADE Risk Adjustment	\$4,600		\$3,300		(\$1,300)	As agreed to, project risk adjustment does not count as a variance.
CADE Release 2, Milestone 4A	\$15,000	11/30/2005	\$7,000	6/30/2006	(\$8,000)	7 mos. \$8 million moved to level of effort contract.
CADE Release 2, (level of effort)			\$8,000	12/31/2005	\$8,000	0 mos. See above.
<b>Total Dollar Increase for Ongoing Projects</b>	<b>\$150,012</b>		<b>\$161,212</b>		<b>\$0</b>	<b>0.0%</b>