United States General Accounting Office

GAO

Report to Congressional Committees

June 2001

BUSINESS SYSTEMS MODERNIZATION

Results of Review of IRS' March 2001 Expenditure Plan

GAO

Accountability * Integrity * Reliability

GAO-01-716

Contents

Abbreviations

IRS	Internal Revenue Service
ITIA	Information Technology Investments Account
OMB	Office of Management and Budget
STIR	Security and Technology Infrastructure Release

United States General Accounting Office
Washington, D.C. 20548

June 29, 2001

The Honorable Byron L. Dorgan
Chairman
The Honorable Ben Nighthorse Campbell
Ranking Minority Member
Subcommittee on Treasury and General Government
Committee on Appropriations
United States Senate

The Honorable Ernest J. Istook, Jr.
Chairman
The Honorable Steny H. Hoyer
Ranking Minority Member
Subcommittee on Treasury,
Postal Service and General Government
Committee on Appropriations
House of Representatives

Pursuant to the Department of the Treasury's fiscal year 1999 and 2001 appropriations acts, the Internal Revenue Service (IRS) submitted to the Congress in March 2001 its fourth expenditure plan, requesting $128 million from its systems modernization appropriations account, which is referred to as the Information Technology Investments Account (ITIA).[1] As required by the acts, we reviewed the plan. Our objectives were to (1) determine whether the plan satisfied the conditions specified in the acts,[2] (2) determine IRS' progress in implementing modernization management controls and capabilities, and (3) provide any other observations about the plan and IRS' Business Systems Modernization program.

[1]The Omnibus Consolidated and Emergency Supplemental Appropriations Act, 1999 (Public Law 105-277) and the Department of Transportation and Related Agencies Appropriations Act, 2001 (Public Law 106-346).

[2]The acts specify that ITIA funds are unavailable until IRS submits to the Congress for approval a modernization expenditure plan that (1) implements IRS' Modernization Blueprint (IRS' enterprise architecture); (2) meets the Office of Management and Budget's (OMB) system investment guidelines; (3) meets IRS life-cycle management requirements; (4) is reviewed and approved by IRS, Treasury, and OMB, and is reviewed by GAO; and (5) meets federal acquisition requirements and management practices.

On April 20, 2001, and April 23, 2001, we briefed your respective offices on the results of our review. This report transmits this briefing and reiterates the recommendations to the Commissioner of Internal Revenue that we specified in the briefing. The full briefing, including our scope and methodology, is reprinted in appendix I. In summary, we made four major points:

- IRS' March 2001 expenditure plan satisfied the conditions specified in the appropriation acts.
- IRS continued to make important progress in implementing modernization management controls and capabilities. Nevertheless, IRS' modernization management capacity is still not where it should be, given (1) the number of system acquisition projects that the March 2001 plan identifies as underway and planned and (2) the fact that several of the ongoing projects are entering critical stages in their life cycles. Examples of modernization management controls and capabilities that are not yet implemented are (1) having a sufficiently defined version of the enterprise architecture[3] to guide and constrain projects and (2) employing rigorous configuration management practices.[4]
- As we have concluded in our past reports on IRS' expenditure plans, attempting to acquire modernized systems before having the requisite management capacity increases the risk that systems will experience cost, schedule, and performance shortfalls. These risks escalate as projects move from preliminary design into detailed design and development—a point in IRS' system life-cycle methodology that is called Milestone 3. Key IRS projects are beginning to experience these shortfalls against the commitments IRS made in its third expenditure plan.[5] For example, IRS reports that for the Customer Communications 2001 project, deployment of the system is 3 months behind schedule, and promised system capabilities and associated benefits have been deferred. Also, IRS reports that a critical infrastructure project (called the Security and Technology Infrastructure Release—STIR) was 1.5

[3]An enterprise architecture defines the critical attributes of an agency's collection of information systems in both business/functional and technical/physical terms.

[4]Configuration management is the means for ensuring the integrity and consistency of system modernization program and project products throughout their life cycles. Through effective configuration management, for example, integration among related projects and alignment between projects and the enterprise architecture can be achieved.

[5]IRS submitted its third plan on October 10, 2000, and it was approved on November 20, 2000.

months late in attempting to complete its preliminary design phase (Milestone 3), and, as of mid-April 2001, IRS was still working to finalize 6 of 19 work products needed to complete this phase; thus, the project is actually almost 5 months late.

- IRS officials recognized the need to address its modernization management capacity before key ongoing projects move into critical life-cycle phases, and before additional projects are started. Accordingly, IRS planned or had initiated steps to address these weaknesses. For example, in response to our findings, the Commissioner decided in April 2001 to slow ongoing and new projects, giving priority to putting in place missing management capacity. We believed that these decisions were prudent and appropriate, and we made the following recommendations to ensure that IRS followed through on each decision.

Recommendations for Executive Action

Our open recommendations to the Commissioner of Internal Revenue remain operative and applicable until IRS completes and implements its enterprise architecture and other missing modernization management controls and capabilities.

We further recommend that the Commissioner, consistent with his commitments,

- slow ongoing projects and delay and stagger new project starts until the requisite controls and capabilities are fully implemented and
- not approve projects exiting Milestone 3 until IRS
  - demonstrates, through the use of traceability matrices, that projects align with a sufficiently defined enterprise architecture version and
  - has fully implemented rigorous configuration management practices across its portfolio of modernization projects.

Agency Comments

In commenting on a draft of this report, the Commissioner of Internal Revenue agreed with our recommendations and stated that IRS would continue working to implement key management controls needed to ensure the success of the Business Systems Modernization program. The Commissioner’s written comments are reprinted in appendix II.

We are sending copies of this report to the Chairmen and Ranking Minority Members of other Senate and House Committees and Subcommittees that have appropriations, authorization, and oversight responsibilities for the Internal Revenue Service. We are also sending copies to the Commissioner of Internal Revenue, the Secretary of the Treasury, the Chairman of the IRS Oversight Board, and the Director of the Office of Management and Budget. Copies will also be made available to others upon request.

Should you or your staff have any questions on matters discussed in this report, please contact me at (202) 512-3439. I can also be reached by e-mail at *hiter@gao.gov*. Key contributors to this report are listed in appendix III.

Randolph C. Hite
Director, Information Technology
Systems Issues

Briefing Slides From April 20, 2001, and April 23, 2001, Briefings of the Senate and House Appropriations Subcommittee Staffs

GAO
Accountability * Integrity * Reliability

Information Technology

Results of Review of IRS' March 2001 ITIA Expenditure Plan

Briefing to the Staffs of
the Senate Committee on Appropriations,
Subcommittee on Treasury and General Government
(on April 23, 2001)
and
the House Committee on Appropriations,
Subcommittee on Treasury, Postal Service,
and General Government
(on April 20, 2001)

1

GAO
Accountability * Integrity * Reliability

Briefing Overview

- Introduction
- Objectives
- Scope and Methodology
- Background
- Results in Brief
- Results
- Conclusions
- Recommendations

2

GAO
Accountability * Integrity * Reliability

Introduction

- Per IRS' FY 1999 and 2001 appropriations acts, Information Technology Investments Account (ITIA) funds are unavailable until IRS submits to the Congress for approval, a modernization expenditure plan that:
  - Implements IRS' Modernization Blueprint (IRS' enterprise architecture;
  - Meets OMB information technology (IT) investment guidelines;
  - Meets IRS life cycle management requirements;[1]
  - Is reviewed and approved by IRS, Treasury, and OMB, and is reviewed by GAO; and
  - Meets federal acquisition requirements and management practices.
- Since mid-1999, IRS has submitted a series of expenditure or "spending" plans requesting release of ITIA appropriated funds.

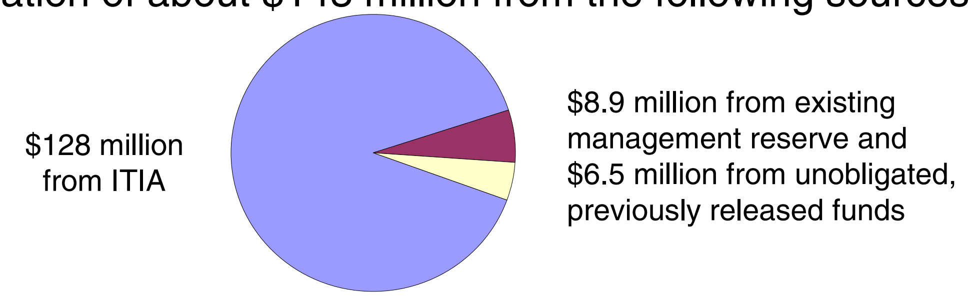
[1]IRS refers to its life cycle management program as the Enterprise Life Cycle (ELC), which is graphically depicted in the Background Section.

3

GAO
Accountability * Integrity * Reliability

Introduction

- To date, about $578 million has been appropriated for ITIA, and $449 million has been released, leaving approximately $128 million, as shown on the following page.
- On March 16, 2001, IRS submitted for approval, its fourth plan for obligation of about $143 million from the following sources

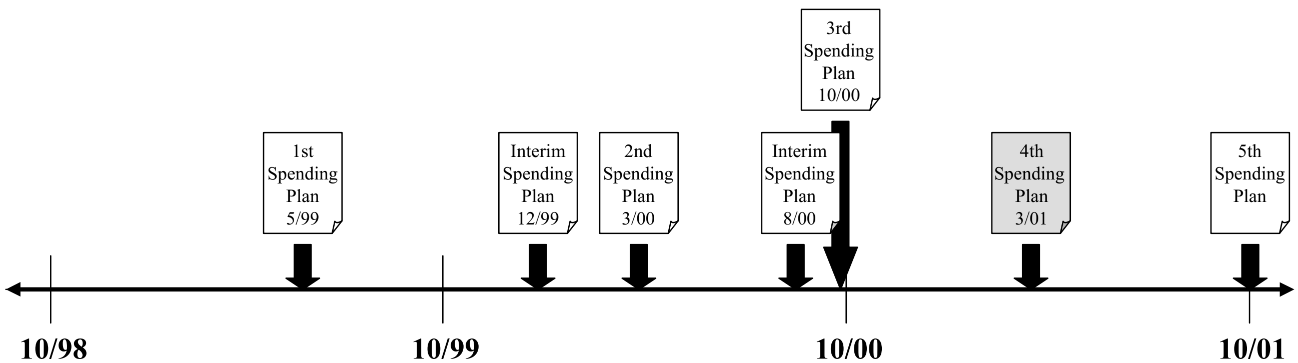


- If the plan is approved, ITIA will have a zero balance. To replenish the fund, IRS has requested $397 million for its ITIA via its fiscal year 2002 budget request.
- In anticipation of the 2002 request being approved, IRS plans to submit another expenditure plan by October 2001.

4

GAO
Accountability * Integrity * Reliability

Introduction



	1st (5/99)	Interim (12/99)	2nd (3/00)	Interim (8/00)	3rd (10/00)	4th (3/01)	5th
ITIA Funds Requested For Release (millions)	**$35**	**$33**	**$176**	**$33**	**$200**	**$128**	**?**
ITIA Funds Released Per Plan (millions)	**$35**	**$33**	**$148**	**$33**	**$200**	**?**	**?**
Cumulative Release of ITIA Funds (millions)	**$35**	**$68**	**$216**	**$249**	**$449**	**?**	**?**

? - Amount to be determined

5

GAO
Accountability * Integrity * Reliability

Objectives

- As agreed, our objectives were to
  - determine whether the fourth expenditure plan satisfies the legislative conditions,
  - determine what progress IRS has made in implementing modernization management controls and capabilities, and
  - provide any other observations about the fourth plan and IRS' Business Systems Modernization (BSM) program.
- We agreed to provide our results to IRS' appropriations subcommittees on or before April 23, 2001.

6

GAO
Accountability * Integrity * Reliability

Scope and Methodology

- To accomplish our objectives, we
  - Reviewed the fourth expenditure plan and met with IRS program officials to understand the scope and content of the plan;
  - Analyzed the plan against the legislative conditions to identify any variances;
  - Reviewed program and project management reports and briefings to assess progress in implementing modernization management controls and capabilities;
  - Observed modernization executive steering committee and subcommittee meetings to, among other things, document how the plan was developed and reviewed;
  - Interviewed program and project management officials to corroborate our understanding of the plan and other BSM activities.

7

GAO
Accountability * Integrity * Reliability

Scope and Methodology

- Analyzed available evidence on recent efforts to implement modernization management controls and capabilities. Specifically, we analyzed progress and plans for
  - Business Systems Modernization Office (BSMO) implementation,
  - enterprise architecture (EA) definition,
  - ELC definition and implementation,
  - investment management definition and implementation,
  - software acquisition maturity, as defined by the Software Engineering Institute's (SEI) Software Acquisition Capability Maturity Model™(SA-CMM), and
  - key projects such as the Security Technology and Infrastructure Release (STIR), the Customer Account Data Engine (CADE), and the Custodial Accounting Project (CAP).

8

GAO
Accountability * Integrity * Reliability

Scope and Methodology

- Collaborated with the Treasury Inspector General for Tax Administration (TIGTA) to avoid duplication of effort in reviewing program and project initiatives and incorporated TIGTA's results in this briefing where appropriate. Project-level initiatives addressed by TIGTA included Customer Communications, e-Services, the Telecommunications Enterprise Strategic Program, and Customer Relationship Management-Exam.

- As agreed with your offices, we did not independently validate planned initiatives' cost estimates or confirm, through system and project management documentation, the validity of IRS-provided information on the initiatives' content and progress.

9

GAO
Accountability * Integrity * Reliability

Scope and Methodology

- We provided a draft of this briefing on April 19, 2001, to IRS' Chief Information Officer (CIO), Associate Commissioner for Business Systems Modernization, and other executives and have incorporated their comments where appropriate.

- We performed our work from March through mid-April 2001 in accordance with generally accepted government auditing standards.

10

GAO
Accountability * Integrity * Reliability

Background

Summary of Fourth Expenditure Plan[2]

Program Management and Architecture Activities	
Prime Program Management Office	$2,236
ELC Enhancements and Maintenance	$3,673
Configuration Management	$240
Systems Engineering and Technical Assistance Contractor	$2,498
Architecture Engineering Office	$4,000
Subtotal	*$12,647*
Project Level and Infrastructure Activities	
Core Infrastructure Support Projects	$6,621
Customer Account Data Engine	$40,038
Custodial Accounting Project - Enterprise Data Warehouse	$8,500
Core Financial Systems	$5,116
Other Business Projects	$70,508
Subtotal	*$130,783*
Total	**$143,430**

[2] Dollars in thousands. See appendix I for a more detailed summary of the plan.

11

GAO
Accountability * Integrity * Reliability

Background

- The fourth plan (1) continues ongoing program-level initiatives through mid-November 2001 and ongoing projects to their next milestones and (2) establishes five new projects:
  - Customer Account Management, planned to enable IRS customer service representatives to access taxpayer data in CADE to service taxpayers;
  - Filing and Payment Compliance, planned to enable IRS business users to access taxpayer data in CADE and CAP to ensure compliance and allow taxpayers to resolve accounts issues electronically;
  - Reporting Compliance, planned to, among other things, extract data from modernized databases for use in selecting returns for examination;

12

GAO
Accountability * Integrity * Reliability

Background

- Taxpayer Education, planned to develop taxpayer education training systems and engage third parties, such as tax practitioners, to deliver the training to their customers.
- Workload Planning & Control, an enterprise-wide system planned to, among other things, produce enterprise-wide management information reports and assign work to support management processes. (Since submitting the plan, IRS incorporated this system into its Integrated Financial Services system.)

- Like its previous plans, IRS' fourth expenditure plan covers contractor costs, such as the Prime Systems Integration Support (PRIME) contractor and the systems engineering and technical assistance contractor (MITRE), and not IRS internal costs, such as IRS BSMO staff costs.

13

GAO
Accountability * Integrity * Reliability

Background

Summary of Prior GAO Expenditure Plan Reviews

- To date, GAO has reviewed and reported on three expenditure plan and two "stopgap" spending requests for ITIA funding releases.[3]
    - In short, since mid-1999, we have reported on the risks associated with IRS' approach of concurrently building systems while developing and implementing program management capabilities (e.g., program management office, EA, and ELC, including configuration management and software acquisition management).[4]

[3]For details on our past review results, see appendix II.
[4]For example, see *Internal Revenue Service: Progress Continues But Serious Management Challenges Remain* (GAO-01-562T, April 2, 2001) and *Internal Revenue Service: 2001 Tax Filing Season, Systems Modernization, and Security of Electronic Filing* (GAO-01-595T, April 3, 2001).

14

GAO
Accountability * Integrity * Reliability

Background

- An EA is an institutional blueprint defining how an enterprise operates today, in both business and technology terms, and how it wants to operate at some point in the future. An EA also includes a roadmap for transitioning between these “as is” and “to be” business and systems environments.

- Configuration management is the means for ensuring the integrity and consistency of system modernization program and project products throughout their life cycles.

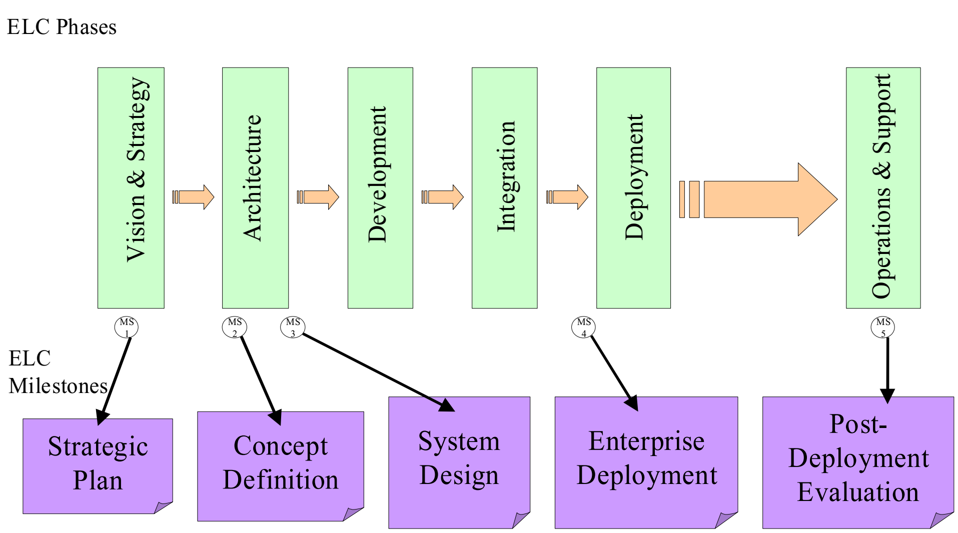
- EA and configuration management are but two of many management controls required under IRS’ ELC, which is a structured method for managing system modernization program initiatives and projects throughout their life cycles (see below simplified diagram of ELC).

15

GAO
Accountability * Integrity * Reliability

Background

IRS' Enterprise Life Cycle Phases and Milestones



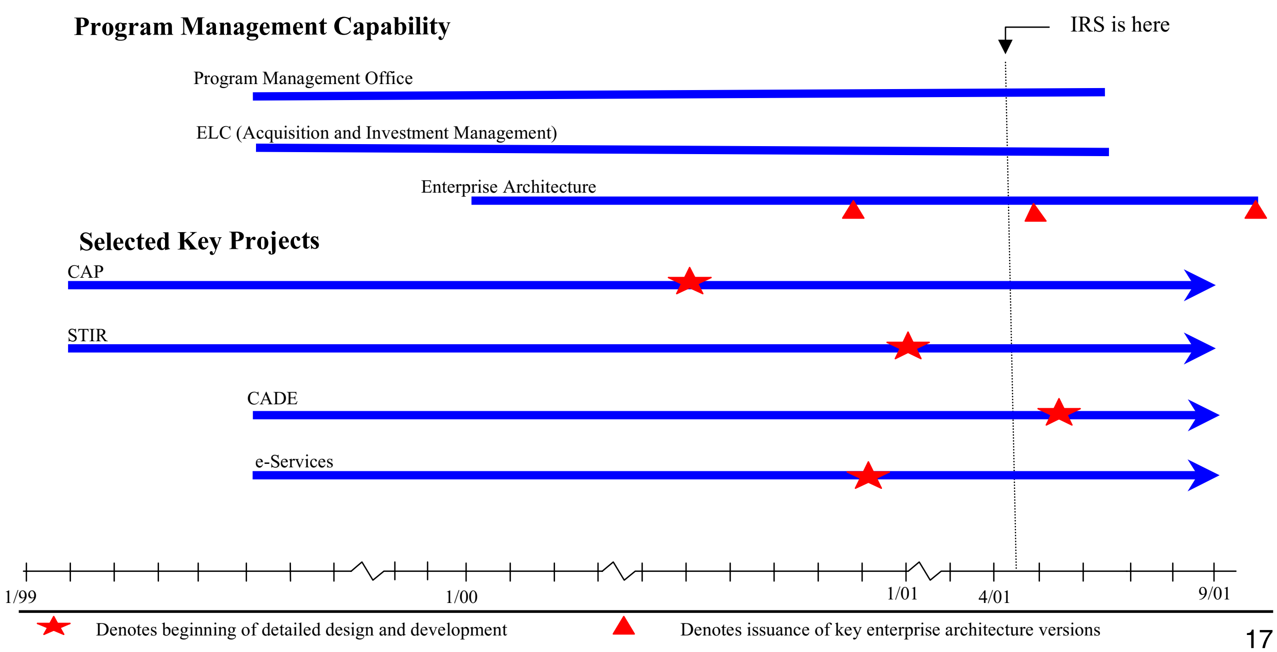
16

GAO

Accountability * Integrity * Reliability

Background

Timeline Illustrating Concurrency of Building Systems and Implementing Program Management Controls/Capabilities



17

GAO
Accountability * Integrity * Reliability

Background

- We have also reported[5] that the risks associated with building systems without the requisite management controls are not as severe early in projects' life cycles when they are being planned (project definition and preliminary system design), but escalate as projects are built (detailed design and development). In the case of IRS and its ELC, this point of risk escalation is ELC Milestone 3, as is shown in the following graphic.

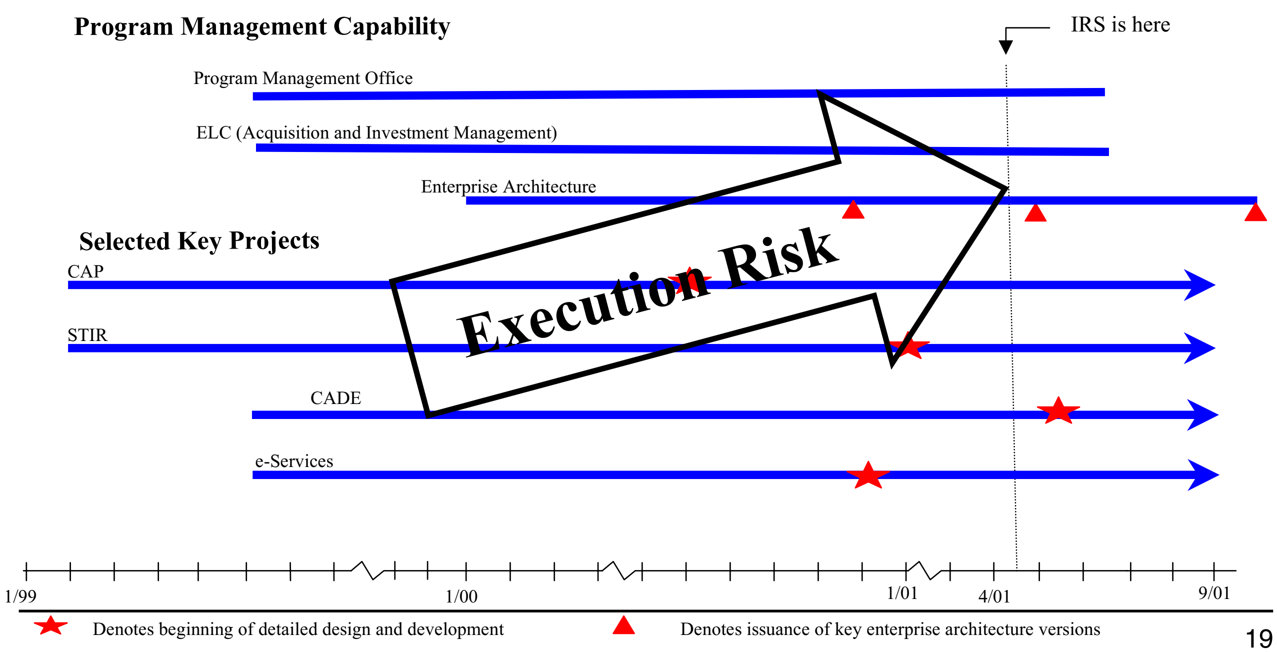
[5]For example, see *Tax Systems Modernization: Results of Review of IRS' Third Expenditure Plan* (GAO-01-227, January 22, 2001).

18

GAO
Accountability * Integrity * Reliability

Background

Previous Timeline Depicting Escalating Program Execution Risk



19

GAO
Accountability * Integrity * Reliability

Results in Brief

- IRS' fourth plan satisfies each of five legislative conditions.

Legislative Conditions	Satisfies	Does Not Satisfy
1. Implements IRS' enterprise architecture.	✓	
2. Meets the requirements of IRS' life cycle program.	✓	
3. Meets OMB information systems investment guidelines.	✓	
4. Reviewed and approved by IRS, Treasury, and OMB, and reviewed by GAO.	✓	
5. Complies with federal acquisition requirements and management practices.[6]	✓	

- IRS continues to make important progress in implementing modernization management controls and capabilities. Nevertheless, IRS' modernization management capacity is still not where it should be given (1) the number of system acquisition projects that the fourth plan identifies as underway and planned and (2) the fact that several of the ongoing projects are entering critical stages in their life cycles.

[6]These acquisition requirements and practices are intended to establish acquisition management rigor and discipline, such as those defined in the Software Engineering Institute's acquisition model. Our analysis of the plan focused on satisfaction of this model's tenets.

20

GAO
Accountability * Integrity * Reliability

Results in Brief

- Examples of modernization management controls and capabilities that are not yet implemented are
  - Having a sufficiently defined version of the EA to guide and constrain projects, and
  - Employing rigorous configuration management practices.

- As we have concluded in our past reports on IRS' expenditure plans, attempting to acquire modernized systems before having the requisite management capacity increases the risk that systems will experience cost, schedule, and performance shortfalls. These risks increase as projects move from their planning phases into their design and development phases. Key IRS projects are now beginning to experience these shortfalls. For example, IRS reports that

21

GAO
Accountability * Integrity * Reliability

Results in Brief

- the Customer Communications 2001 project is 3 months behind schedule and promised system capabilities and associated benefits have been deferred.

- STIR was 1.5 months late in reaching its ELC Milestone 3 commitments. However, these shortfalls are understated because not all commitments were fully satisfied in exiting Milestone 3 in January 2001. Specifically, 6 of 19 ELC-required Milestone 3 work products were only conditionally approved, and STIR is still working to finalize them.

22

GAO
Accountability * Integrity * Reliability

Results in Brief

- Since IRS submitted its fourth expenditure plan, we shared our positions with IRS, and IRS has acknowledged the need to address its modernization management capacity needs before key ongoing projects move into critical life cycle phases, and before additional new projects are started.

- Accordingly, IRS has committed to pulling back on the pace of ongoing planned projects and giving priority to putting in place missing management capacity. We believe that these decisions are prudent and appropriate, and are making recommendations to ensure that IRS follows through on each.

23

GAO
Accountability * Integrity * Reliability

Results

Objective 1: Fourth plan satisfies the conditions in IRS' FY 1999 and 2001 appropriations acts.

Legislative Conditions	Expenditure Plan Provisions
1. Implements IRS' enterprise architecture.	The fourth plan provides funds to continue definition and implementation of the enterprise architecture. For example, it provides for ▪ addressing issues raised during review and approval of EA release 1.0, ▪ completing and issuing EA release 1.1, ▪ developing release architectures for 2002 and for 2003-04, ▪ completing and issuing EA 2.0; and ▪ operation of the Architecture Engineering Office
2. Meets the requirements of IRS' life cycle program.	The plan provides funds for meeting the requirements in IRS' life cycle management program. For example, the plan calls for ▪ maintaining responsibility for coordinating, tracking, and integrating all program-wide costs, schedules, releases, issues, and risks; ▪ maintaining and institutionalizing IRS' ELC; ▪ updating configuration management procedures and establishing and maintaining configuration management repositories.

24

GAO
Accountability * Integrity * Reliability

Results

Legislative Conditions	Expenditure Plan Provisions
3. Meets OMB investment guidelines.	▪ IRS' expenditure plan provides for refining and implementing Investment Decision Management processes to ensure that OMB guidelines are met.
4. Reviewed and approved by IRS, Treasury, and OMB, and reviewed by GAO.	▪ IRS—March 8, 2001 ▪ Treasury—March 9, 2001 ▪ OMB—March 15, 2001 ▪ GAO—April 20, 2001 (House) and April 23, 2001 (Senate)
5. Complies with federal acquisition requirements and management practices.	▪ As part of the ELC, IRS has defined processes, roles, responsibilities, etc. for implementing selected Software Engineering Institute (SEI) Software Acquisition Capability Maturity Model™ level 2 key process areas.[7] These processes are consistent with federal acquisition requirements and management practices. The plan, for example, provides funds to make the process improvement efforts needed to increase software acquisition discipline. It also provides for an internal compliance assessment by September 2001 to assess progress in implementing key processes followed by a more "formal" independent assessment of this progress early next year.

[7]These are Acquisition Planning, Solicitation, Requirements Development and Management, Project Management, Contract Tracking and Oversight, Evaluation, and Transition to Support.

25

GAO
Accountability * Integrity * Reliability

Results

Objective 2: Despite important progress, key controls and capabilities have not yet been implemented.

- Since we reported[8] on IRS' last plan, IRS has made important progress in implementing modernization controls and capabilities and addressing our recommendations for implementing such controls and capabilities.
- However, key controls and capabilities are still missing.

Commitments Made in September 2000 Plan to Address Weaknesses	Completed	On Schedule	Not Completed
Mature software acquisition capabilities			
▪ Train staff in SA CMM level 2 key process areas.	✓		
▪ Have all projects follow SA CMM level 2 processes by January 2001.			✓ (See pg. 29)
▪ Have an evaluation performed by independent assessor in September 2001 to ensure compliance with SEI's level 2 requirements.			✓ (See pg. 29)
IRS and contractor roles and responsibilities			
▪ Implement defined IRS-PRIME roles and responsibilities by December 2000.	✓		
▪ Define roles and responsibilities of other modernization support contractors vis-à-vis those of the PRIME contractor.	✓		

[8] *Tax Systems Modernization: Results of Review of IRS' Third Expenditure Plan* (GAO-01-227, January 22, 2001).

26

GAO
Accountability * Integrity * Reliability

Results

Commitments Made in September 2000 Plan to Address Weaknesses	Completed	On Schedule	Not Completed
ELC definition and implementation			
▪ Develop/ finalize parts of the ELC, including ▪ program control policies and procedures ▪ 75-80 change requests ▪ legacy system impact supplement ▪ enterprise architecture management supplement	✓		
▪ Provide training on ELC processes and procedures by January 2001.	✓		
▪ Incorporate IT investment management controls into the ELC.	✓		
▪ Fully define and implement configuration management procedures.			✓ (See pg. 30)
Enterprise architecture completion and use			
▪ Complete remaining 14 (out of 23) key concepts.	✓		
▪ Submit the enterprise architecture products comprising release 1.0 for review to IRS business and other stakeholders.	✓		
▪ Have the PRIME complete review of the quality of architecture products.	✓		
▪ Have MITRE complete an assessment of release 1.0 completeness and adequacy.	✓		
▪ Obtain Core Business Systems Executive Systems Committee's approval of EA 1.0.	✓		
▪ Approve EA 1.0.			✓ (See pg. 34)
▪ Approve EA 1.1 in April 2001.		✓	
▪ Approve EA 2.0 in September 2001.		✓	
▪ Ensure ongoing projects are aligned with EA.			✓ (See pg. 37)

27

GAO
Accountability * Integrity * Reliability

Results

Commitments Made in September 2000 Plan to Address Weaknesses	Completed	On Schedule	Not Completed
BSMO implementation			
▪ Develop charters for the 8 units within BSMO.	✓		
▪ Complete training on BSMO roles, responsibilities, policies, procedures by January 2001.	✓		
▪ Fill vacant positions.	✓		
▪ Hire contractor to support BSMO quality assurance.	✓		
Portfolio investment management			
▪ Develop, analyze and prioritize project hypotheses.	✓		
▪ Determine project formation.	✓		
▪ Prioritize, sequence and revise portfolio.	✓		
▪ Create project cases for action.	✓		

28

GAO
Accountability * Integrity * Reliability

Results

IRS Has Not Ensured SA-CMM Level 2 Processes Are Being Followed

- In December 2000, IRS completed staff training on the Level 2 key process areas of SEI's Software Acquisition Capability Maturity Model™.
- However, it did not implement the practices by January 2001 as planned. IRS found via an internal compliance assessment that projects were not yet following these practices. IRS officials attributed the delay to the fact it was taking IRS longer than estimated to implement the practices.
- IRS' new schedule is to complete implementation and have another internal assessment by September 2001, with the goal of having an independent assessment by March 2002.

29

GAO
Accountability * Integrity * Reliability

Results

IRS Has Not Fully Implemented Configuration Management Practices

- In response to our inquiries, IRS reviewed PRIME configuration management of selected projects, including CADE and STIR, and found that key project deliverables were not under configuration control because the contractor was not following procedures. In response, IRS tasked the PRIME to develop a “get well” plan, which it did on March 1, 2001.
- IRS also found that its configuration management function was not operating effectively. While IRS has since identified and taken steps to address this problem, it acknowledges that it has not yet implemented or completed certain critical corrective actions. For example,
  - Baselines for all approved products prepared by the PRIME have not been established.

30

GAO
Accountability * Integrity * Reliability

Results

- IRS and PRIME change control boards have been created and are meeting regularly but roles and responsibilities have not been fully defined, and therefore the boards are not yet fully functional.
- Definition of all configuration items are not to be completed until May 15, 2001.

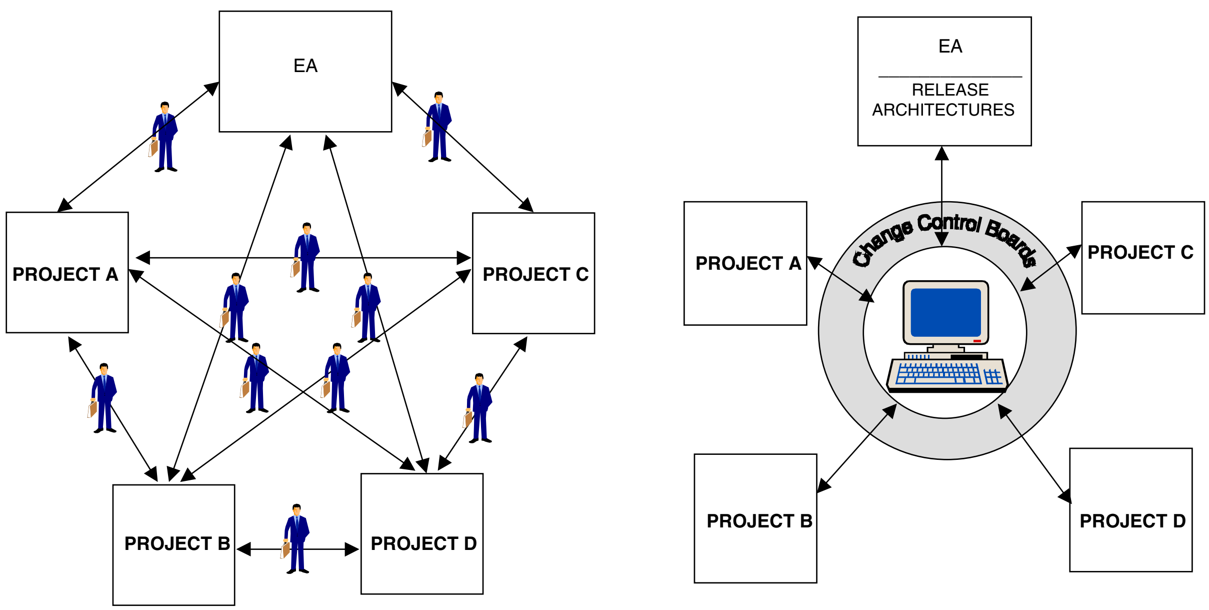
- In the interim, IRS will be relying on informal communication among modernization project and enterprise architecture teams. For example, IRS is relying on individuals working on the projects to remember the nature and content of relationships, to update this information to reflect changes, and to share changes with all affected parties on the other project teams.
- IRS and PRIME officials recognize the weaknesses associated with this control approach. They also have stated that (1) they are working to implement the requisite controls to ensure such a complex task is effectively managed and (2) progress to date places the current level of configuration control “between” the interim and desired states depicted in the following graphic.

31

GAO
Accountability * Integrity * Reliability

Results

Simplified Diagram Characterizing Interim and Desired Configuration Management Approaches



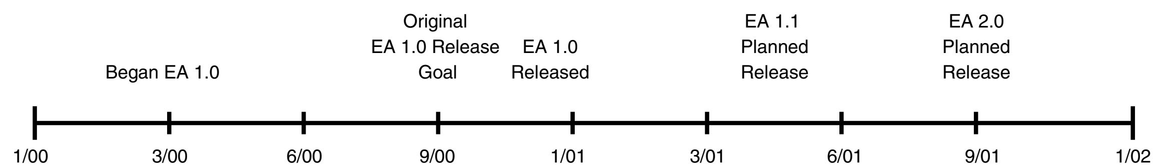
32

GAO
Accountability * Integrity * Reliability

Results

IRS Has Only Conditionally Approved EA 1.0

- IRS is developing its EA in 3 releases (1.0, 1.1, and 2.0)



- Prior to IRS approving EA 1.0, IRS circulated a draft internally for comment (see appendix IV for description of framework being used to develop the EA) and engaged a contractor (MITRE) to evaluate 1.0's completeness and correctness.
- IRS obtained over 1,100 issues from internal reviewers, some of which were significant. In addition, MITRE found that the draft was neither complete nor adequate, and did not meet its stated objectives. Nevertheless, senior IRS officials conditionally approved EA 1.0 in December 2000, without addressing all these known limitations, and added 127 other conditions for approval.

33

GAO
Accountability * Integrity * Reliability

Results

- Since December 2000, IRS has been working to address these open issues and reports that it has made significant changes to the EA to address them. IRS plans to resolve all the open issues and conditions via (1) EA 1.1 and EA 2.0 which are planned for issuance on April 30, 2001, and September 30, 2001, respectively, and (2) other architecture-related guidance.

  - Specifically, of the 127 conditions, IRS has not determined the disposition of 8 and plans to address 81 in EA 1.1 and 38 in EA 2.0, respectively. In addition, IRS assessed and aggregated the 1,100 issues and from them, identified 30 corrective actions. Four of the 30 will be addressed in EA 1.1 and the remaining 26 will be addressed in EA 2.0.

34

GAO
Accountability * Integrity * Reliability

Results

- To address its immediate needs for having sufficient architecture definition to allow "near term" projects to proceed, IRS officials stated that it has recently decided to produce a "near-term projects" or "release 2002" architecture that will be used to guide and constrain near-term modernization project investments.

- According to IRS, the "release 2002" architecture is to be completed by the end of June 2001.

35

GAO
Accountability * Integrity * Reliability

Results

IRS Has Not Assured BSM Projects Are Aligned with EA

- IRS' ELC requires that projects be mapped to the EA by developing traceability matrices between ELC-required project requirements and design products and the ELC-required EA products.
- The ELC requires these mappings to ensure the projects are built in accordance with the EA, which reduces the risk of expensive rework, especially after projects have begun detailed design and development.
- However, our review of two key IRS projects (STIR and CADE) found that IRS had not yet mapped the projects to a current version of the EA because the EA and the projects were in a state of change.
- To address this weakness, IRS officials stated that after they have completed the projects' designs, they will map the projects to the "release 2002" architecture, and then map the "release 2002" architecture to EA.

36

GAO
Accountability * Integrity * Reliability

Results

IRS Recognizes Weaknesses and Has Initiated Steps to Address Them

- IRS has initiated steps aimed to
  - complete definition of the EA and complete project designs,
  - implement configuration management control practices,
  - map the projects to the EA, and thereby
  - ensure project alignment with the EA and integration with other modernization projects.

- In addition, in early April 2001, the Commissioner committed to slow ongoing and new projects, giving priority to first putting in place missing management capacity and then building systems. For example,

37

GAO
Accountability * Integrity * Reliability

Results

- CADE's Milestone 3 date is being delayed to a yet to be determined time to ensure that CADE's design is sufficiently defined and the integration of this design with other modernized projects is effectively accomplished via, among other things, alignment with the EA and adherence to rigorous configuration management.

- The start date for the five new projects planned to begin in April 2001 is being delayed. In addition, the start dates for these projects are to be staggered, rather than initiating them all at once, with the first to begin in May 2001.

38

GAO
Accountability * Integrity * Reliability

Results

Objective 3: Other observations about IRS' fourth plan and its BSM program

Observation 1: Plan Discloses and Explains Project Cost and Schedule Changes, But Omits Changes to Project Capabilities and Expected Benefits

- In our June 1999 report on IRS' first plan,[9] we recommended that IRS, in future expenditure plans, report progress against incremental project commitments. We reported in January 2001 that IRS' third plan did not do this.
- IRS disclosed that 12 projects have experienced cost increases and/or schedule delays against commitments made in its third and other prior plans.

[9] *Tax Systems Modernization: Results of Review of IRS' Initial Expenditure Plan* (GAO/AIMD-99-206, June 15, 1999).

39

GAO
Accountability * Integrity * Reliability

Results

- Examples include[10]

Program/ Project Management Initiative	Commitment Date and Funding as of 9/2000 ($000)	Revised Commitment Date and Funding ($000)	Change (%)
E-Services Milestone 3	2/28/01 $6,918	06/30/01 $17,879	+4 Months +$10,961 (158%)
Integrated Financial Services/Core Financial Systems Milestone 2,3	03/01/01 $3,449	03/01/02 $8,565	+12 Months +$5,116 (148%)
Customer Communications Milestone 3 (release 2002)	2/28/01 $3,509	07/31/01 $17,787	+4 months +$14,278 (406%)

- However, the fourth plan does not provide the level of specificity needed to identify changes, if any, to projects' scopes. For example, while the plan discusses the impact of the schedule and cost variances on each project, it generally does not specify (1) changes to project scopes and related benefit expectations or (2) effects on interdependent projects and their benefits.

[10]A list of 12 is in appendix IV.

40

GAO
Accountability * Integrity * Reliability

Results

- In addition, the plan does not include all slippages. For example, STIR Milestone 3 was moved from November 2000 to January 2001. Moreover, Milestone 3 approval was conditional, and STIR has still not yet completed essential Milestone 3 work products, although it has begun to perform Milestone 4 tasks.

41

GAO
Accountability * Integrity * Reliability

Results

Observation 2: Plan Is Based on Contractor Estimates That Have Not Been Validated by IRS

- As has been the case in the prior plans, the cost estimates in IRS' fourth plan are contractor-provided, "rough order of magnitude" estimates, and are not based on detailed work breakdown structures of tasks and deliverables.
- IRS plans to validate these estimates as part of its task order definitization process with its PRIME and other contractors. Under this process, the contractor submits task order proposals that include costs, IRS assesses the proposals and develops independent cost estimates, and IRS negotiates a final task order cost.

42

GAO
Accountability * Integrity * Reliability

Results

- To date, only task orders for 11 of the 16 projects funded with the third plan have been definitized, resulting in negotiated costs for 3 projects being more than 35 percent above or below plan estimates. Cumulative negotiated costs so far are about $7 million less than plan estimates.

43

GAO
Accountability * Integrity * Reliability

Conclusions

- IRS' fourth plan satisfies the legislative conditions. In addition, IRS continues to make important progress in implementing needed modernization management capacity, and in doing so, recognizes the need to slow ongoing and new projects until all controls are fully addressed. However, until that time, key modernization controls will continue to be missing, putting IRS at risk of building systems that may not perform as intended, and/or cost more and take longer to complete.

- These risks are not as severe early in projects' life cycles when they are being planned, but escalate as projects begin to be built after passing ELC Milestone 3. Consequently, we are concerned about those projects that have or are going to proceed beyond Milestone 3 before these controls are fully implemented. This concern is heightened by the fact that key projects have or are beginning to experience relatively significant schedule delays.

44

GAO
Accountability * Integrity * Reliability

Conclusions

- Given that IRS' fourth plan calls for post-Milestone 3 work on several projects and provides for several more to pass ELC Milestone 3 within the next several months, it is important for IRS to continue to make implementation of these program management controls and capabilities a top priority. In particular, completing the EA, mapping the projects to the EA to ensure alignment, and employing mature software acquisition management practices, including rigorous configuration management, are essential.

- IRS' fourth plan includes reporting on IRS efforts to meet project cost and schedule commitments made in prior plans, but it does not fully disclose whether projects' scope and expected benefit commitments have changed. Such information is critical to fully disclosing IRS modernization management performance and establishing accountability.

45

GAO
Accountability * Integrity * Reliability

Recommendations for Executive Action

Because our open recommendations to the Commissioner of Internal Revenue remain operative and applicable until IRS completes and implements its EA and other missing modernization management controls and capabilities, we are not making additional recommendations at this time, with the following exceptions:

We recommend that the Commissioner of Internal Revenue, consistent with his commitments,

- slow ongoing projects and delay and stagger new project starts until requisite controls and capabilities are fully implemented; and

46

GAO
Accountability * Integrity * Reliability

Recommendations for Executive Action

- not approve projects exiting ELC Milestone 3 until IRS
  - demonstrates, through the use of traceability matrices, that projects align with a sufficiently defined EA version, and
  - has fully implemented rigorous configuration management practices across its portfolio of modernization projects.

47

GAO
Accountability * Integrity * Reliability

Agency Comments

- In commenting on a draft of this briefing, IRS' CIO agreed with our conclusions and recommendations.

48

GAO
Accountability * Integrity * Reliability

Appendix I: IRS' Expenditure Plan

Business Systems Modernization - ITIA Spending Plan March 2001 ($000)

Proposed Modernization Initiatives	*Milestone*	*Milestone Date*	*Amount Requested*
Program Level Activities			
Prime Program Management Office - First 6 Weeks of Fiscal Year 2002	FY	Nov. 01	$2,236
ELC Enhancements and Maintenance	FY	Sep. 01	$2,912
ELC Enhancements and Maintenance - First 6 Weeks of Fiscal Year 2002	FY	Nov. 01	$761
Configuration Management - First 6 Weeks of Fiscal Year 2002	FY	Nov. 01	$240
FFRDC (MITRE) - First 6 Weeks of Fiscal Year 2002	FY	Nov. 01	$2,498
Architectural Engineering Office	FY	Sep. 01	$2,100
Architectural Engineering Office - First 6 Weeks of Fiscal Year 2002	FY	Nov. 01	$1,900
			$12,647
Core Infrastructure Support Projects			
Telecommunication Enterprise Strategic Program	FY	Sep. 01	$3,921
Telecommunication Enterprise Strategic Program - First 6 Weeks of Fiscal Year 2002	FY	Nov. 01	$700
Solutions Demonstration Laboratory - First 6 Weeks of Fiscal Year 2002	FY	Nov. 01	$380
Virtual Development Environment - First 6 Weeks of Fiscal Year 2002	FY	Nov. 01	$1,120
Enterprise Integration and Test Environment - First 6 Weeks of Fiscal Year 2002	FY	Nov. 01	$500
			$6,621

49

GAO
Accountability * Integrity * Reliability

Appendix I: IRS' Expenditure Plan

Existing Data Projects

Customer Account Data Engine	MS4	Dec. 01	$40,038
Custodial Accounting Project - Enterprise Data Warehouse	MS2,3	Jun. 02	$8,500
Integrated Financial Services/Core Financial Systems	MS2,3	Mar. 02	$5,116
			$53,654

Existing Business Projects

Customer Communications 2002	MS3	Jul. 01	$14,232
Customer Communications 2002	MS4	Dec. 01	$17,175
e-Services	MS4	Nov. 01	$14,099
			$45,506

New Business Projects

Customer Account Management	MS2	Nov. 01	$12,135
Filing & Payment Compliance	MS2	Nov. 01	$2,517
Reporting Compliance	MS2	Nov. 01	$6,022
Taxpayer Education	MS2	Nov. 01	$2,517
Workload Planning & Control	MS2	Nov. 01	$1,811
			$25,002

Total Business Systems Modernization Program		**$143,430**

50

GAO
Accountability * Integrity * Reliability

Appendix II: Results of Past GAO Reviews

Spending Plan	Results of GAO Review
1st Spending Plan (May 1999) ($35 million request)	• The plan satisfied the legislative conditions for the use of ITIA funds and was consistent with our open recommendations. • The plan was an appropriate first step, but the key to success would be effective implementation of the plan. • Future plans should specify progress against prior plan commitments, and the next plan should clarify IRS/contractor roles and responsibilities.
1st Interim Spending Plan (Dec 1999) ($33 million request)	• The plan raised concerns about projects that were scheduled to begin detailed design and software development before, among other things, the enteprise architecture was completed and the ELC was defined and implemented. • IRS should expedite completion of the architecture and implementation of the ELC. • Future plans should explain how IRS plans to manage the risk of performing detailed design or development work if the architecture is not sufficiently completed or the ELC is not sufficiently implemented.

51

GAO
Accountability * Integrity * Reliability

Appendix II: Results of Past GAO Reviews

Spending Plan	Results of GAO Review
2nd Spending Plan (Mar 2000) ($176 million request)	• IRS met relatively few commitments in its $35 million first ITIA spending plan, even though the Service later received an additional $33 million and nearly 5 months of extra time to accomplish the goals set forth in the first plan. • The plan satisfied the legislative conditions for the use of ITIA funds, and was generally consistent with recommendations contained in our earlier reports. • The key to success would be whether IRS effectively implements the plan. • Until IRS completes its initiated actions to redirect and restructure its modernization effort, it would continue to lack key modernization and technical controls.
2nd Interim Spending Plan (Aug 2000) ($33 million request)	• IRS had not adhered to the approved and funded March 7, 2000, spending plan. • On selected initiatives, IRS had not met cost and schedule commitments made in its March 7, 2000 spending plan. • Most modernization initiatives had nevertheless made important progress since March 2000. IRS fully addressed two of its modernization management capability weaknesses, and it was making progress in addressing others. • One project, Custodial Accounting Project (CAP), had been approved for product development without sufficient definition and without a compelling business case. Further investment in CAP should be limited until IRS demonstrates sufficient business value and reports to the House and Senate committees on risk mitigation. • Another project, Security and Technology Infrastructure Release (STIR), was being preliminarily designed without sufficient requirements definition and economic justification. The STIR project should be directed to complete a security risk assessment as soon as possible, and ensure that STIR requirements and the proposed design solution are economically justified through a business case.

52

GAO
Accountability * Integrity * Reliability

Appendix II: Results of Past GAO Reviews

Spending Plan	Results of GAO Review
3rd Spending Plan (Oct 2000) ($200 million request)	• IRS' plan satisfied the legislative conditions for the use of ITIA funds, and was making important progress towards satisfying the congressional direction on two projects – CAP and STIR. • IRS was making important progress in establishing effective modernization management capability, but important and challenging work remained. Until IRS completed its initiated actions to fully implement its system life cycle methodology and business systems modernization office, and resolve issues concerning the completeness and accuracy of enterprise architecture, it continued to lack key modernization and technical controls. • Five modernization initiatives experienced schedule delays and/or cost increases. However, the third plan did not address whether projects' prior commitments for delivery of promised systems capabilities (requirements) and benefit/business value were being met. • IRS used contractor-provided "rough order-of-magnitude" estimates in preparing the third expenditure plan. IRS planned to validate the third plan's estimates as part of its process to negotiate and definitize contract task orders. Previously, this process resulted in finalized contract costs below the estimates, totalling $9 million.

53

GAO
Accountability * Integrity * Reliability

Appendix III: EA Work Products

Enterprise Business Direction Model View
- 01-Enterprise Business Direction Model
- 02-Enterprise Context Diagrams
- 03-Enterprise Business Concept of Operations

Location Model View
- 12-Location PCAs
- 13-Location-Type Definitions
- 14-Process Location-Type Matrix

Organization Model View
- 09-Organization Direction Model
- 10-Role Definitions
- 11-Process Role Matrix

System Engineering Model View
- 15-Systems Development PCAs
- 16-Taxonomy of Tools
- 17-Taxonomy of Enterprise Standards and Conventions
- 18-Enterprise Standards
- 19-Enterprise Conventions
- 20-Service Level PCAs
- 21-Taxonomy of Service Levels
- 22-Taxonomy of Interface Types
- 23-Reuse Strategy
- 24-Definition of Business Systems
- 25-Solution Design Patterns
- 26-Process/Systems Matrix

Applications Model View
- 32-Application PCAs
- 33-Taxonomy of Application Types
- 34-Enterprise Application Matrix
- 35-Process/ Application Matrix
- 36-Enterprise API Definitions

Data Model View
- 27-Data PCAs
- 28-Taxonomy of Data
- 29-Data Management Approach
- 30-Enterprise Conceptual Data Model
- 31-Process Data Matrix

Business Process Model View
- 04-Business Process Principles, Constraints, and Assumptions (PCAs)
- 05-Enterprise Process Hierarchy
- 06-Business Process Flows
- 07-Business Process Definitions
- 08-Process Thread Performance Models

Infrastructure Model
- 45-Infrastructure PCAs
- 46-Taxonomy of Infrastructure Elements
- 47-Infrastructure Strategy
- 48-Infrastructure Concept of Operations

Technology Model View
- 37-Technology PCAs
- 38-Taxonomy of Technology Capabilities
- 39-Technology Insertion Strategy
- 40-Process/Technology Capability Matrix

Enterprise Requirements
- 53-Taxonomy of Requirements
- 54-Requirements Statements and Traceability Linkage

Security and Privacy Model View
- 41-Security and Privacy PCAs
- 42-Taxonomy of Security and Privacy Functions
- 43-Verification and Compliance
- 44-Security Function Matrix

Enterprise Transition Strategy
- 55-System Assignments to Projects
- 56-Interface Assignments to Projects
- 57-Current Production Environment Description
- 58-Near-Term Sequencing and Release Plan (1 - 3 years)
- 59-Medium-Term Sequencing and Release Plan (4 - 6 years)
- 60-Long-Term Sequencing and Release Plan (7+ years)

Management and Other Work Products
- 49-Completeness and Adequacy Assessment Approach
- 50-Completeness and Adequacy Assessment
- 51-Taxonomy of Baseline Content
- 52-Enterprise Architecture Risk Management Plan

54

GAO
Accountability * Integrity * Reliability

Appendix IV: IRS Reported Cost Increases/ Schedule Delays

Program/ Project Management Initiative	Commitment Date and Funding as of 9/2000 ($000)	Revised Commitment Date and Funding ($000)	Change (%)
ELC Enhancements and Maintenance	(thru end of FY01) $3,686	$6,598	0 Months +$2,912 (79%)
Tax Administration Vision and Strategy (TAVS)	(thru end of 3/01) $6,200	$8,376	0 Months +$2,176 (35%)
Internal Management Vision and Strategy	(thru end of 12/00) $4,040	(thru end of 4/01) $4,227	+4 Months +$187 (5%)
Architectural Engineering Office	(thru end of FY01) $17,570	$19,670	0 Months +$2,100 (12%)
Enterprise Systems Management (ESM) Milestone 3	02/28/01 $13,225	06/30/01 $9,712	+4 Months -$3,513 (–27%)
Solutions Demonstration Laboratory	(thru end of FY01) $1,759	$2,027	0 Months +$268 (15%)
Virtual Development Environment	(thru end of FY01) $6,310	$6,340	0 Months +$30 (.4%)
Customer Account Data Engine (CADE) Milestone 2,3	03/31/01 $15,900	05/15/01 $16,567	+1.5 Months +$667 (4%)

55

Appendix IV: IRS Reported Cost Increases/ Schedule Delays

Program/ Project Management Initiative	Commitment Date and Funding as of 9/2000 ($000)	Revised Commitment Date and Funding ($000)	Change (%)
Custodial Accounting Project (CAP) Milestone 3	08/31/00 $6,182	9/30/00 $8,432	+1 Month +$2,250 (36%)
Integrated Financial Services/ Core Financial Systems Milestone 2,3	03/01/01 $3,449	03/01/02 $8,565	+12 Months +$5,116 (148%)
E-Services Milestone 3	2/28/01 $6,918	06/30/01 $17,879	+4 Months +$10,961 (158%)
Customer Communications Milestone 3 (release 2002)	2/28/01 $3,509	07/31/01 $17,787	+4 months +$14,278 (406%)

56

Comments From the Internal Revenue Service

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

COMMISSIONER

May 31, 2001

Mr. Joel C. Willemssen
Managing Director, Information
Technology Issues
United States General Accounting Office
441 G Street, NW
Washington, DC 20548

Dear Mr. Willemssen:

Thank you for the opportunity to respond to your draft report, ***Results of Review of IRS' March 2001 ITIA Expenditure Plan***, dated May 15, 2001, and the related briefing to the Senate and House Appropriations Subcommittee staff.

We agree with the recommendations in the report and are working toward implementing key management controls to ensure the success of Business Systems Modernization (BSM). We are pleased that GAO:

- Validated that we satisfied the conditions specified in the appropriations acts
- Acknowledged the important progress we have made to implement modernization management controls and capabilities
- Confirmed our plans are prudent and appropriate to strengthen IRS management capacities

As noted, we need to continue working to provide a solid foundation for the IRS to successfully oversee and deliver taxpayer benefits. Our response to your individual recommendations in the report follows.

Enterprise Architecture

A complete Enterprise Architecture is critical to establish the framework for a systems development program of this size. While the Enterprise Architecture version 1.0, completed in December 2000, was approved with conditions, we are confident the architecture provides sufficient guidance for this year's modernization projects.

We will resolve the remaining architecture issues identified in the current Enterprise Architecture 1.1 (updated in May 2001), or through planned revisions to the architecture, which we expect in September 2001. In addition, the Systems Engineering Board run jointly by the IRS and PRIME, will provide ongoing engineering guidance.

2

We agree the consistency and accountability of the Enterprise Architecture are fundamental to implementing modernization projects. To ensure accountability, we are creating the 2002 Release Architecture. This identifies the configuration items that we can trace to the Enterprise Architecture and allocate to specific modernization projects. We now require an architectural certification for every project before exiting Milestone 3, which is before systems development. Through these reviews, we will ensure compliance with the Enterprise Architecture. These reviews evaluate each project on:

- Design consistency with the technical reference model in the Enterprise Architecture
- Compliance with architectural standards
- Systems interfaces as defined in the Enterprise Architecture
- Compliance with meeting architectural security and privacy requirements
- Systems Design alignment with the transition strategy
- Modifications from the Enterprise Architecture requiring waivers or architecture change requests

Configuration Management

We are also concerned about the maturity of our configuration management (CM) practices. We must have a robust program to ensure BSM's success. With assistance from MITRE, we inspected the PRIME configuration management program last January. Our review found several improvements that will be fully implemented by June 2001. Our improvements include:

- Assigning unique identifiers for configuration items
- Establishing baselines for deliverables and placing them under control of data management and approval processes
- Placing the Enterprise Life Cycle Process Asset Library, our documented methodology, under configuration management control

In addition, we established a process for managing changes to architectural baselines. Modifications require change requests (CR), including an impact analysis. The Business Systems Modernization Office and PRIME Configuration Control Boards (CCBs) then approve these change requests. These Boards have been operational since September 2000 and were chartered with fully defined roles and responsibilities in February 2001. We also established control practices and tools to assist the CCBs in change management. These practices and tools include:

- A change request tracking system to control changes to the baseline configuration items
- A deliverables database repository which houses the official baseline documentation

3

- Analytical tools to assess the impact of configuration changes to the enterprise architecture and project plan baselines

We have made significant progress implementing rigorous configuration management practices across the portfolio of modernization projects. In early July, we will provide a detailed report summarizing the development of our configuration management processes, the identification of the configuration items, and the establishment of the configuration baselines.

We will continue to evaluate and manage this program's risks, costs, and schedule. We have reported to the Congress our plans to reschedule Milestone exits and stagger the initiation of new projects. This plan ensures we can properly control this program.

We recognize we need to relate specific benefits to project costs and schedules and explain the impact of changes on those benefits. We are working with Treasury and OMB to develop an approach to present these benefits, costs, and changes for the next ITIA Expenditure Plan. We will continue to work with you to improve the structure and information we provide in the expenditure plans. We appreciate the guidance you and your staff gave us. If you have any questions or need additional information, please call me, or John Reece, Deputy Commissioner & Chief Information Officer at (202) 622-6800.

Sincerely,

Charles O. Rossotti

Charles O. Rossotti

cc: Randolph C. Hite

Enclosure

GAO Contacts and Staff Acknowledgments

GAO Contact

Gary Mountjoy, (202) 512-6367

Staff Acknowledgments

In addition to those named above, other key contributors were Bernard Anderson, Nancy DeFrancesco, Timothy Hopkins, Ona Noble, Sabine Paul, Pietro Salatti, Aaron Thorne, Teresa Tucker, and William Wadsworth.

Ordering Information

The first copy of each GAO report is free. Additional copies of reports are $2 each. A check or money order should be made out to the Superintendent of Documents. VISA and MasterCard credit cards are accepted, also.

Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:
U.S. General Accounting Office
P.O. Box 37050
Washington, DC 20013

Orders by visiting:
Room 1100
700 4th St. NW (corner of 4th and G Sts. NW)
U.S. General Accounting Office
Washington, DC

Orders by phone:
(202) 512-6000
fax: (202) 512-6061
TDD (202) 512-2537

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

Orders by Internet:
For information on how to access GAO reports on the Internet, send an e-mail message with "info" in the body to:

info@www.gao.gov

or visit GAO's World Wide Web home page at:

http://www.gao.gov

To Report Fraud, Waste, or Abuse in Federal Programs

Contact one:

- Web site: http://www.gao.gov/fraudnet/fraudnet.htm
- e-mail: fraudnet@gao.gov
- 1-800-424-5454 (automated answering system)

PRINTED ON RECYCLED PAPER

United States
General Accounting Office
Washington, D.C. 20548-0001

Official Business
Penalty for Private Use $300

Address Correction Requested

Presorted Standard
Postage & Fees Paid
GAO
Permit No. GI00

[redacted]