TREASURY INSPECTOR GENERAL FOR TAX ADMINISTRATION



## Enhancements to Transition Management Guidance Will Enable Efficient and Effective Modernization Project Implementation

April 2006

Reference Number: 2006-20-054

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.

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FOR TAX ADMINISTRATION

#### DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

April 28, 2006

#### **MEMORANDUM FOR** CHIEF INFORMATION OFFICER

FROM:

Michael R. Phillips Deputy Inspector General for Audit

SUBJECT:

Final Audit Report – Enhancements to Transition Management Guidance Will Enable Efficient and Effective Modernization Project Implementation (Audit # 200520020)

This report presents the results of our review of the Internal Revenue Service (IRS) Modernization and Information Technology Services organization's Transition Management activities.<sup>1</sup> The overall objective of this review was to determine whether Transition Management guidance and direction are adequate to ensure modernized systems are transitioned smoothly from the contractor to the IRS support organization. This review was part of our Fiscal Year 2005 audit plan for reviews of the IRS' Business Systems Modernization efforts.

### <u>Synopsis</u>

Transition Management activities prepare receiving organizations to use, operate, and maintain modernized systems. IRS business operating divisions and functional organizations must be prepared to use the new capabilities. Additionally, the Information Technology Systems organization must be prepared to accept changes to its production environment and to operate and maintain new systems at the contractually established time.

<sup>&</sup>lt;sup>1</sup> Transition Management is the management of activities associated with the smooth transfer of modernized business capabilities, including business processes and systems, from the developer to the receiving organization.



In August 2002, we reported<sup>2</sup> the Enterprise Life Cycle<sup>3</sup> guidance on Transition Management activities was not clearly organized and did not address all activities recommended by the Capability Maturity Model.<sup>4</sup> Our reviews of current Transition Management guidance and activities found these areas are now adequately addressed with comprehensive guidance and tools developed by the Transition Management Office. The Transition Management Office is integral in helping project teams, receiving organizations, and support organizations focus on readiness in the areas of business process, staffing, training, communication, hardware, software, and budget.

The Transition Management Office guidance and tools were successfully delivered through the Transition Management Guide, which describes the process the IRS uses to prepare its receiving organizations for system transitions. The Transition Management Office also developed and implemented the Transition Management Repository, which is designed to store transition-related information for each project.

The Transition Management Office can further improve transition efforts by ensuring project gap closure activities adhere to the latest Transition Management guidance. It can also refine its performance measures to include assessments of the interim status of the Transition Management process and its resultant products. The Transition Management Office has developed comprehensive guidance and tools that prepare IRS support organizations to receive Modernization projects.

We reviewed the Modernized e-File<sup>5</sup> project and the Integrated Financial System<sup>6</sup> project transition activities. The Modernized e-File project Release 3.2 followed existing guidance to position the project for a successful transition to the support organization. However, the Integrated Financial System project did not follow Transition Management guidance requiring validation and control of the readiness gaps to help ensure Transition Management Plan completion.

The Transition Management Office issued revised guidance in October 2005 to improve controls over readiness gaps in executing the Transition Management Plan. This new guidance included

<sup>&</sup>lt;sup>2</sup> Management Advisory Report: Progress Has Been Made in Developing Transition to Support Guidance for Modernization Projects (Reference Number 2002-20-146, dated August 2002).

<sup>&</sup>lt;sup>3</sup> The Enterprise Life Cycle establishes a set of repeatable processes and a system of reviews, checkpoints, and milestones that enable delivery of promised business results. See Appendix IV for an overview of the components of the Enterprise Life Cycle.

<sup>&</sup>lt;sup>4</sup> The Software Engineering Institute's Capability Maturity Model is a widely recognized industry standard for efficiently and effectively developing computer projects and systems.

<sup>&</sup>lt;sup>5</sup> The Modernized e-File project's goal is to replace the current technology for filing IRS tax return forms with modernized, Internet-based electronic filing applications.

<sup>&</sup>lt;sup>6</sup> The Integrated Financial System project includes the accounts payable, accounts receivable, general ledger, budget execution, cost management, and financial reporting activities.



a gap closure and tracking template, which all project teams should use. When followed, this template should reduce the gap closure and control weaknesses we identified.

In May 2004, the Business Systems Modernization Office prepared a root cause analysis for Transition Management activities. One of the concerns was "Measures of transition readiness are neither identified nor used." On December 19, 2005, the Transition Management Office finalized the Transition Management Performance Measurement Process, which provides stakeholder assessments of the Transition Management Office and Transition Management tools. Although the Transition Management Performance Measurement Process appears to be a successful effort to measure the effectiveness of the Transition Management Office and its tools, the Transition Management Office can enhance its performance measurement process by assessing the interim status of the Transition Management process and its resultant products.

## **Recommendation**

The Chief Information Officer should direct the Transition Management Office to enhance its performance measures through use of the Capability Maturity Model guidance. Examples of performance measurements considering the Capability Maturity Model guidance could include Transition Management hours expended on a project, number of workshops held, percentage of Transition Management Plan completion, percentage of Transition Management Repository item completion, and percentage of Transition Management Plan gaps closed.

## <u>Response</u>

IRS management agreed with our recommendation. To implement the corrective action, the Transition Management Office has augmented its Transition Management Performance Measurement Process to include measures reflective of those suggested in the Capability Maturity Model Integration. Management's complete response to the draft report is included as Appendix V.

Copies of this report are also being sent to the IRS managers affected by the report recommendation. 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

Transition Management is defined as the management of activities associated with the smooth transfer of modernized business capabilities, including business processes and systems, from the

developer to the receiving organization. Transition Management activities prepare receiving organizations to use, operate, and maintain modernized systems. This includes helping the receiving organizations understand the new system and its implications on the receiving organizations' work and helping them address those implications. Internal Revenue Service (IRS) business operating divisions and functional organizations must be

Transition Management focuses on preparing receiving organizations for both the organizational processes and the technology that will exist in the modernized environment.

prepared to use the new capabilities. Additionally, the Information Technology Systems organization must be prepared to accept changes to its production environment and to operate and maintain new systems at the contractually established time.

The IRS selected the Computer Sciences Corporation to serve as the Prime Systems Integration Services Contractor (PRIME)<sup>1</sup> for the Business Systems Modernization program. The IRS and the PRIME contractor developed the Enterprise Life Cycle (ELC) to provide guidance for designing, developing, and supporting Business Systems Modernization projects. Appendix IV presents an overview of the components of the ELC.

The ELC establishes a set of repeatable processes and a system of reviews that promote delivery of promised business results. The ELC processes are in line with the Software Engineering Institute's Capability Maturity Model.<sup>2</sup> The Capability Maturity Model is a widely recognized and adopted framework for improving software and system acquisition processes.

Transition Management is identified as one of the Capability Maturity Model key process areas and is included as part of the ELC. The intent of Transition Management is to provide a disciplined transition of the Business Systems Modernization projects being developed to the IRS organization responsible for their long-term support and maintenance. All Business Systems Modernization project teams need Transition Management activities to take place to successfully transfer the projects to the IRS. The goal of Transition Management activities is to ensure the

<sup>&</sup>lt;sup>1</sup> The PRIME contractor is the Computer Sciences Corporation, 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>&</sup>lt;sup>2</sup> The Capability Maturity Model was developed by the Software Engineering Institute and is a widely recognized industry standard for efficiently and effectively developing computer projects and systems. Both the IRS and the Computer Sciences Corporation intend to use the Capability Maturity Model as their standard for developing Business Systems Modernization projects.



support organizations are fully prepared to accept responsibility for supporting and maintaining the projects and related products.

This audit is a followup to our August 2002 report entitled *Management Advisory Report*: *Progress Has Been Made in Developing Transition to Support Guidance for Modernization Projects.*<sup>3</sup> This audit was performed at the Business Systems Modernization Office facilities in New Carrollton, Maryland, during the period September 2005 through January 2006. The audit was 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.

<sup>&</sup>lt;sup>3</sup> Reference Number 2002-20-146, dated August 2002.



# Results of Review

# The Transition Management Program Has Progressed Significantly Since Our 2002 Audit

In August 2002, we reported the ELC guidance on Transition Management activities was not clearly organized and did not address all activities recommended by the Capability Maturity Model. Specifically, Transition Management guidance did not sufficiently address the following two areas:

- Responsibility for the software products is transferred only after the software support organization demonstrates its capability and capacity to modify and support the software products.
- The project team conducts activities to ensure support of the software products is maintained and is effective during the transition from the contractor to the software support organization.

We also reported project team implementation weaknesses included:

- Project teams did not develop Transition Management Plans early in the project life cycle of the four modernization projects we reviewed.
- Project teams did not timely include Transition Management Plans and activities in task orders.<sup>4</sup>

Our reviews of current Transition Management guidance and activities found these areas are now adequately addressed. The Transition Management Office is integral in helping project teams, receiving organizations, and support organizations focus on readiness in the areas of business process, staffing, training, communication, hardware, software, and budget. The Transition Management Office has developed comprehensive guidance and tools that prepare IRS support organizations to receive Modernization projects.

#### The Transition Management Office has successfully delivered the Transition Management Guide

The Transition Management Guide describes the process the IRS uses to prepare its receiving organizations for system transitions. It includes a thorough template for preparing project

<sup>&</sup>lt;sup>4</sup> A task order is an order for services placed against an established contract.



Transition Management Plans. It also contains templates for use in assessing and closing receiving organization readiness gaps.

The Transition Management Guide provides direction for three Transition Management entities:

- Projects Direction to identify, document, and help implement transition requirements that will ensure organization readiness to receive the modernized system.
- IRS business operating divisions, functional organizations, and Modernization and Information Technology Services (MITS) groups – Direction to assess their readiness to accept new capabilities and to plan and perform transition-related activities.
- MITS Business Integration Transition Management Office team members Direction to assist business operating divisions, functional organizations and MITS groups with achieving organization readiness to receive modernized systems.

#### <u>The Transition Management Office developed and implemented the Transition</u> <u>Management Repository</u>

The Transition Management Repository, which resides on the IRS intranet, is designed to store transition-related information for each project. The Transition Management Repository includes both a data warehouse and a document template that itemize the required format and contents of project transition documentation.

Information in the Repository is used to generate a project's official Transition Management Plan. The Repository can generate reports that provide an integrated view of transition impacts across projects, for instance by release<sup>5</sup> or by IRS receiving organization. It is also used to access the Gap Closure Action Log template.

The Transition Management Office identified the need to ensure Transition Management activities continue to improve the efficiency and effectiveness of transitioning projects from the developing to the supporting organization. The Transition Management Office can further improve transition efforts by ensuring:

- Project gap closure activities adhere to the latest Transition Management guidance.
- Transition Management performance measures are refined to include measurements of the interim status of the Transition Management process and its resultant products.

<sup>&</sup>lt;sup>5</sup> A release is a specific edition of software.



# *Project Teams Did Not Always Follow Transition Management Guidance When Implementing Their Transition Management Plans*

We reviewed the Modernized e-File (MeF)<sup>6</sup> project and the Integrated Financial System (IFS)<sup>7</sup> project transition activities. The MeF project Release 3.2 efforts followed existing guidance to position the project for a successful transition to the support organization. However, the IFS project did not follow Transition Management guidance in effect at the time of its transition efforts. The IFS project did not follow guidance that required it to validate and control the readiness gaps to help ensure completion of the Transition Management Plan.

We reviewed the April 29, 2005, IFS Milestone 5 Transition Management Plan. Based on documentation in this Plan and related implementation activities, we could not determine whether the IRS receiving organizations were resolving all the transition readiness gaps listed in the Transition Management Plan. Further, the IFS project team could not provide documentation about the work in process or completed to close the Transition Management Plan readiness gaps.

Without proper control over activities to close readiness gaps, neither the project team nor the Transition Management Office can be sure all gaps identified in the Transition Management Plan have been closed prior to transition of a project to the support organization.

The Transition Management Office issued revised guidance in October 2005 to improve controls over readiness gaps in executing the Transition Management Plan. This new guidance included a gap closure and tracking template, which all project teams should use. When followed, this template should reduce the gap closure and control weaknesses we identified. In addition, the MITS organization convened the System Acceptance and

The MITS organization and the Transition Management Office recognized the need to improve control of the Transition Management activities.

Transition to Operations and Maintenance workgroup to define root causes hindering system acceptance and successful transition. This workgroup is in the process of addressing these root causes.

<sup>&</sup>lt;sup>6</sup> The MeF project's goal is to replace the current technology for filing IRS tax return forms with modernized, Internet-based electronic filing applications.

<sup>&</sup>lt;sup>7</sup> The IFS project includes the accounts payable, accounts receivable, general ledger, budget execution, cost management, and financial reporting activities.



# Transition Management Performance Measures Need Further Development

In May 2004, the Business Systems Modernization Office prepared a root cause analysis report for Transition Management activities. The report listed the top 10 themes and concerns of management. One of those concerns was "Measures of transition readiness are neither identified nor used."

On December 19, 2005, the Transition Management Office finalized the Transition Management Performance Measurement Process. This Process provides historical stakeholder assessments of the Transition Management Office and Transition Management tools, such as the Transition Management Guide and Transition Management Repository. The measures are an accumulation of stakeholder responses about the three phases of the Transition Management process:

- Organizational alignment.
- Gap identification.
- Gap closure.

The Transition Management Performance Measurement Process appears to be a successful effort to measure the effectiveness of the Transition Management Office and its tools from the perspective of the receiving organizations. It should result in improved Transition Management Office/stakeholder relations and Transition Management tools. However, the Transition Management Office can enhance its performance measurement process by measuring the interim status of the Transition Management process and its resultant products.

The Capability Maturity Model requires measurements to determine the status of the transition activities and resultant products. The Capability Maturity Model provides the following examples of measurements to track status:

- Effort expended.
- Funds expended.
- Progress towards completion of transition to support.
- Completion of milestones.

The Transition Management Performance Measurement Process does not provide a means to measure the status of Transition Management activities. Without an avenue for measuring the status and effectiveness of Transition Management activities, the Modernization program may be unable to efficiently and effectively manage the transition of its projects from the development to support organizations.



#### Recommendation

**<u>Recommendation 1</u>**: The Chief Information Officer should direct the Transition Management Office to enhance its performance measures through use of the Capability Maturity Model guidance. Examples of Transition Management performance measurements considering the Capability Maturity Model guidance could include Transition Management hours expended on a project, number of workshops held, percentage of Transition Management Plan completion, percentage of Transition Management Repository item completion, and percentage of Transition Management Plan gaps closed.

**Management's Response:** The IRS agreed with this recommendation. As part of its Transition Management Guide, the Transition Management Office has augmented its Transition Management Performance Measurement Process to include measures reflective of those suggested in the Capability Maturity Model Integration. The Transition Management Performance Measurement Process now includes the following proposed measures:

- Percentage of projects with a detailed Transition Management work plan by Milestone 2 Exit.
- Percentage of projects using the Transition Management Repository.
- Percentage of projects that have an approved Transition Management Plan at Milestone 2-5 Exits.
- Percentage of readiness gaps closed or successfully reduced at Milestone 4 Exit.
- Percentage of readiness gaps closed or successfully reduced at Milestone 5 Exit.

Data for the proposed measures will be collected through established Transition Management practices. Transition Management Office representatives will collect the data as part of the service they provide to Project Transition Management teams and through the monthly Transition Readiness Reporting process. This approach enables the Transition Management Office to collect the necessary data through its normal support of project Transition Management teams.



## Appendix I

## Detailed Objective, Scope, and Methodology

The overall objective of our review was to determine whether Transition Management<sup>1</sup> guidance and direction are adequate to ensure modernized systems are transitioned smoothly from the contractor to the Internal Revenue Service (IRS) support organization. To accomplish our objective, we reviewed available documentation and interviewed Transition Management Office, Business Systems Modernization Office, and Information Technology Services organization managers and analysts, and Modernization Acquisition analysts from the Agency-Wide Shared Services organization. This review was part of our Fiscal Year 2005 audit plan for reviews of the IRS' Business Systems Modernization efforts. Specifically, we:

- I. Determined the status and adequacy of Transition Management guidance in use and in development.
  - A. Assessed current Transition Management guidance to determine whether it improved on weaknesses we previously identified in our report entitled *Management Advisory Report: Progress Has Been Made in Developing Transition to Support Guidance for Modernization Projects.*<sup>2</sup>
  - B. Interviewed the Transition Management Office Senior Manager to determine the effective date for using current guidance and whether future guidance updates were in development to further direct transition activities.
  - C. Interviewed the Business Systems Modernization Office Acquisition Project Manager and Information Technology Services organization Project Manager for the Integrated Financial System (IFS)<sup>3</sup> and the Modernized e-File (MeF)<sup>4</sup> projects to determine how the Transition Management guidance was being communicated, controlled, and implemented.
- II. Assessed the implementation of Transition Management guidance in modernization projects for the IFS and MeF projects.

<sup>&</sup>lt;sup>1</sup> Transition Management is the management of activities associated with the smooth transfer of modernized business capabilities, including business processes and systems, from the developer to the receiving organization.

<sup>&</sup>lt;sup>2</sup> Reference Number 2002-20-146, dated August 2002.

<sup>&</sup>lt;sup>3</sup> The IFS project includes the accounts payable, accounts receivable, general ledger, budget execution, cost management, and financial reporting activities.

<sup>&</sup>lt;sup>4</sup> The MeF project's goal is to replace the current technology for filing IRS tax return forms with modernized, Internet-based electronic filing applications.



- A. Determined whether modernization project task orders<sup>5</sup> included adequate Transition Management Plans with necessary preparation and transitioning activities.
- B. Identified projects requiring operations and maintenance contracts due to a project change or Transition Management deliverables or activities not timely tasked or planned.
- C. Determined whether the IFS and MeF projects had adequate Transition Management Plans for the IRS support organizations to receive the applications transitioned from the developer.
- III. Determined the adequacy of Transition Management direction and project coordination and communication among the participating organizations such as the PRIME contractor,<sup>6</sup> Business Systems Modernization Office, Information Technology Services organization, and Transition Management Office.
  - A. Interviewed the Transition Management Office Senior Manager and reviewed Transition Management guidance to determine the status of the Transition Management Office organizational placement within the Modernization and Information Technology Services organization.
  - B. Identified plans for Transition Management to provide guidance to Information Technology Services organization systems (in addition to Business Systems Modernization Office systems) after the initiation of the Enterprise Services organization.
  - C. Determined the adequacy of Transition Management readiness reviews for the IFS and MeF projects.

<sup>&</sup>lt;sup>5</sup> A task order is an order for services placed against an established contract.

<sup>&</sup>lt;sup>6</sup> The PRIME contractor is the Computer Sciences Corporation, 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.



## **Appendix II**

## Major Contributors to This Report

Margaret E. Begg, Assistant Inspector General for Audit (Information Systems Programs) Gary V. Hinkle, Director Edward A. Neuwirth, Audit Manager Glen J. Rhoades, Senior Auditor Louis V. Zullo, Senior Auditor Perrin T. Gleaton, Auditor



### **Appendix III**

## **Report Distribution List**

Commissioner C Office of the Commissioner – Attn: Chief of Staff C Deputy Commissioner for Operations Support OS Associate Chief Information Officer, Applications Development OS:CIO:B Associate Chief Information Officer, Enterprise Services OS:CIO:ES Deputy Associate Chief Information Officer, Applications Development OS:CIO:AD Director, Procurement OS:A:P Director, Stakeholder Management OS:CIO:SM Deputy Associate Chief Information Officer, Business Integration OS:CIO:ES:BI Deputy Associate Chief Information Officer, Systems Integration OS:CIO:ES:SI Director, Test, Assurance, and Documentation OS:CIO:AD:TAD Chief Counsel CC National Taxpayer Advocate TA Director, Office of Legislative Affairs CL:LA Director, Office of Program Evaluation and Risk Analysis RAS:O Office of Management Controls OS:CFO:AR:M Audit Liaisons: Associate Chief Information Officer, Applications Development OS:CIO:B Director, Program Oversight OS:CIO:SM:PO



## Appendix IV

# Enterprise Life Cycle Overview

The Enterprise Life Cycle (ELC) is the Internal Revenue Service's (IRS) standard approach to business change and information systems initiatives. It is a collection of program and project management best practices designed to manage business change in a successful and repeatable manner. The ELC addresses large and small projects developed internally and by contractors.

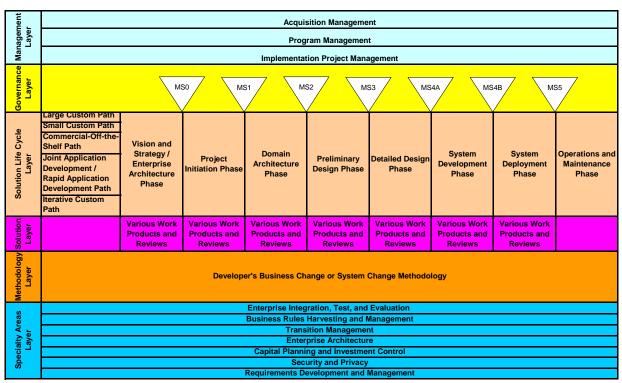
The ELC includes such requirements as:

- Development of and conformance to an enterprise architecture.
- Improving business processes prior to automation.
- Use of prototyping and commercial software, where possible.
- Obtaining early benefit by implementing solutions in multiple releases.<sup>1</sup>
- Financial justification, budgeting, and reporting of project status.

In addition, the ELC improves the IRS' ability to manage changes to the enterprise; estimate the cost of changes; and engineer, develop, and maintain systems effectively. Figure 1 provides an overview of the layers, paths, phases, and milestones (shown as "MS" in Figure 1) within the ELC Framework.

<sup>&</sup>lt;sup>1</sup> A release is a specific edition of software.





#### Figure 1: ELC Framework

Source: Graphical representation of the ELC Framework modified from the ELC Guide.

### **ELC Layers**

The ELC is a framework for organizing and using IRS directives, processes, procedures, templates, and standards to accomplish business change. It is organized as a set of interacting layers.

- The **Management Layer** specifies how to plan and control business change programs, projects, acquisitions, and solutions throughout the ELC.
- The **Governance Layer** specifies additional controls imposed from outside the project or program.
- The Solution Life Cycle Layer specifies what should be done but not how to do it.
- The **Solution Layer** manages the solution as it is produced, including providing standards for consistent solution specification and formal review of solution content. This Layer provides control over work products that may be produced by multiple internal and external developers using differing methodologies.



- The **Methodology Layer** details how to do the work and specifies a unique set of work products to be produced. Specific methodologies are not part of the ELC Framework.
- The Specialty Areas Layer provides additional guidance for areas of particular importance within the IRS. These areas include Enterprise Integration, Test, and Evaluation;<sup>2</sup> Business Rules Harvesting<sup>3</sup> and Management; Transition Management;<sup>4</sup> Enterprise Architecture; Capital Planning and Investment Control;<sup>5</sup> Security and Privacy; Requirements Development and Management.

## ELC Paths

A path specifies a unique "philosophy" or orientation for performing the work. Although the ELC specifies a standard for the work required to produce and operate business change solutions, there are multiple ways to approach and accomplish the required work. Paths are like alternate roads, each of which crosses different terrain, but all of which lead to the same destination. The ELC provides five distinct paths or approaches to developing systems:

- The Large Custom Path is for large projects.
- The **Small Custom Path** is for small projects.
- The **Commercial-Off-the-Shelf Path** is a commercial, software-based approach.
- The Joint Application Development/Rapid Application Development Path is a highly accelerated, prototyping-based approach for very small, standalone solutions or solution components.
- The **Iterative Custom Path** is a hybrid approach that combines elements of the other approaches.

### **ELC Phases and Milestones**

A phase is a broad segment of work encompassing activities of similar scope, nature, and detail and providing a natural breakpoint in the life cycle. Each phase begins with a kickoff meeting and ends with an executive management decision point (called a milestone) at which IRS

<sup>&</sup>lt;sup>2</sup> Enterprise Integration, Test, and Evaluation includes processes for integrating multiple components of a solution and conducting various types and levels of testing on the solution.

<sup>&</sup>lt;sup>3</sup> A business rule is a statement that defines or constrains some aspect of the business. Harvesting is a general term used to broadly describe the entire set of activities involved in gathering, formalizing, analyzing, and validating business rules for a particular scope.

<sup>&</sup>lt;sup>4</sup> Transition Management helps ensure personnel and organizations are prepared to receive, use, operate, and maintain the business processes and technology provided by business change solutions.

<sup>&</sup>lt;sup>5</sup> The Capital Planning Investment and Control process manages a central portfolio of information technology investments across the IRS.



executives make "go/no-go" decisions for continuation of a project. Project funding decisions are often associated with milestones.

Phase	General Nature of Work	Concluding Milestone	
Vision and Strategy/	High-level direction setting. This is the only phase	0	
Enterprise Architecture Phase	for enterprise planning projects.		
Project Initiation Phase	Startup of development projects.	1	
Domain Architecture Phase	Specification of the operating concept, requirements, and structure of the solution.	2	
Preliminary Design Phase	Preliminary design of all solution components. 3		
Detailed Design Phase	Detailed design of solution components.	4A	
System Development Phase	Coding, integration, testing, and certification of solutions.	4B	
System Deployment Phase	Expanding availability of the solution to all target users. This is usually the last phase for development	5	
	projects.		
Operations and Maintenance	Ongoing management of operational systems.	System	
Phase		Retirement	

#### Figure 2: ELC Phases and Milestones

Source: The ELC Guide.



## Appendix V

## Management's Response to the Draft Report

CHIEF INFORMATION OFFICER	DEPARTMENT OF THE TREASURY INTERNAL REVENUE SERVICE WASHINGTON, D.C. 20224	RECEIVED APR 122006
	April 12, 2006	
MEMORANDUM FOR	R DEPUTY INSPECTOR GENERAL FOR A	AUDIT
FROM:	W. Todd Grams UTG- Chief Information Officer	
SUBJECT:	Draft Audit Report – Enhancements to Tra Guidance Will Enable Efficient and Effecti Project Implementation (Audit #20052002	ive Modernization
Thank you for the opp appreciate the additio version of the report's	portunity to review the subject draft audit report nal meeting we had with the audit team to a observations.	port. We also discuss the early
adequately addressed	report recognized that the Enterprise Servio d weaknesses noted in a previous TIGTA a Management guidance as well as project te	udit report when
now preparing IRS or	cknowledgment that the current Transition ganizations to receive Modernization Project	cts through their
development of comp Management Guide a	rehensive guidance and tools that include t nd the Transition Management Repository.	he Transition
recognition of the Trai	nsition Management Office's success in pro	oviding assistance to
project teams as well	as receiving organizations to focus on read ssful transition of the modernization projec	liness in the areas
improve our processe	and appreciate the audit team's advice on s. We agree with the recommendation as a our completed corrective action for this rec	reflected in your report.
your team provides. I	ontinued support and the valuable assistan f you have any questions, please contact m your staff contact Judy Mills, Director of Pro	ne at (202) 622-6800,
Attachment		



Attachment

Draft Audit Report – Enhancements to Transition Management Guidance Will Enable Effective and Efficient Modernization Project Implementation – Audit # 200520020

**RECOMMENDATION #1:** The Chief Information Officer should direct the Transition Management Office to enhance its performance measures through use of the Capability Maturity Model guidance. Examples of Transition Management performance measurements considering the Capability Maturity Model guidance could include: Transition Management hours expended on a project, number of workshops held, percentage of Transition Management Plan completion, percentage of Transition Management Repository item completion, and percentage of Transition Management Plan gaps closed.

**<u>CORRECTIVE ACTION #1:</u>** We agree with this recommendation. As part of Section 2.5 of the Transition Management Guide, the Transition Management Office has augmented its Transition Management Performance Measurement Process to include measures reflective of those suggested in the Capability Maturity Model Integration. As such, the Enterprise Services' Transition Management Office has updated the Transition Management Performance Measurement Process to include the following proposed measures:

- Percentage of projects with a detailed Transition Management work plan by Milestone (MS) 2 Exit;
- Percentage of projects using the Transition Management Repository;
- Percentage of projects that have an approved Transition Management Plan at MS2-5 Exits;
- Percentage of readiness gaps closed or successfully mitigated at MS 4 Exit; and
- Percentage of readiness gaps closed or successfully mitigated at MS 5 Exit.

Data for the proposed measures will be collected through established Transition Management practices. Enterprise Services Transition Management Office representatives will collect the data as part of the Level I service they provide Project Transition Management teams and through the monthly *Transition Readiness Reporting* process – per Section 5.7 of the Transition Management Guide. This approach enables the Transition Management Office to collect the necessary data through the normal course of supporting project Transition Management teams. The Transition Management Performance Measurement Process was updated to include the proposed measures on February 28, 2006.