



*Information Technology: Improvements Are
Needed to Successfully Plan and Deliver
the New Taxpayer Advocate Service
Integrated System*

September 30, 2014

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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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HIGHLIGHTS

INFORMATION TECHNOLOGY: IMPROVEMENTS ARE NEEDED TO SUCCESSFULLY PLAN AND DELIVER THE NEW TAXPAYER ADVOCATE SERVICE INTEGRATED SYSTEM

Highlights

**Final Report issued on
September 30, 2014**

Highlights of Reference Number: 2014-20-071 to the Internal Revenue Service Chief Technology Officer and National Taxpayer Advocate.

IMPACT ON TAXPAYERS

The Taxpayer Advocate Service's (TAS) mission is to help taxpayers resolve problems with the IRS. The current automated tools that TAS employees rely on are obsolete, and the multiple technology platforms in place are costly and ineffective. Successful development and implementation of the planned Taxpayer Advocate Service Information System (TASIS) would enable the National Taxpayer Advocate and the estimated 1,000 case advocates to better address taxpayers' needs on a range of requests for assistance. Initial functionality for the TASIS includes improved capabilities for managing and documenting case advocacy activities that support taxpayer requests for TAS assistance.

WHY TIGTA DID THE AUDIT

The overall audit objective was to determine whether the IRS is adequately mitigating systems development risks for the TASIS Project to achieve business and information technology goals.

WHAT TIGTA FOUND

Following persistent delays and concerns with the initial TASIS Project, the IRS began redirecting the development effort in January 2014. Specifically, the IRS initiated a process called a Customer Technical Review to help validate whether the current approach for the TASIS could provide necessary functionality

as designed and to meet the December 2014 deployment milestone. However, development activities for the TASIS Project are currently on hold, and funding issues and unforeseen problems with the new system are being evaluated. TIGTA identified the following areas that need improvements:

- Requirements management practices were not sufficient to successfully develop the TASIS.
- Risk management controls were not followed to manage TASIS systems development risks.
- Critical roles and responsibilities were not established or clearly communicated.
- System requirements have not yet been sufficiently verified.

WHAT TIGTA RECOMMENDED

TIGTA made five recommendations to the IRS Chief Technology Officer and the National Taxpayer Advocate. In management's response to the report, the IRS agreed with four of our recommendations and plans to implement corrective actions.

The IRS disagreed with our recommendation to verify that Entellitrak[®] functionality is sufficient to meet requirements and ensure that TAS business needs will be met with the planned system. TIGTA maintains that the IRS needs to consider a more complete set of system requirements for TASIS case management functions to map to Entellitrak as part of its ongoing project management processes.



TREASURY INSPECTOR GENERAL
FOR TAX ADMINISTRATION

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

September 30, 2014

MEMORANDUM FOR CHIEF TECHNOLOGY OFFICER
NATIONAL TAXPAYER ADVOCATE

FROM: Michael E. McKenney
Deputy Inspector General for Audit

SUBJECT: Final Audit Report – Information Technology: Improvements Are Needed to Successfully Plan and Deliver the New Taxpayer Advocate Service Integrated System (Audit # 201420014)

This report presents the results of our review of the Taxpayer Advocate Service Integrated System Project. The overall objective of this review was to determine whether the Internal Revenue Service (IRS) is adequately mitigating systems development risks for the Taxpayer Advocate Service Integrated System Project to achieve business and information technology goals. This audit is included in our Fiscal Year 2014 Annual Audit Plan and addresses the major management challenges of Modernization, Taxpayer Protection and Rights, and Security for Taxpayer Data and IRS Employees.

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 recommendations. If you have any questions, please contact me or Danny Verneuille, Acting Assistant Inspector General for Audit (Security and Information Technology Services).



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Abbreviations

COTS	Commercial Off-the-Shelf
CTR	Customer Technical Review
ELC	Enterprise Life Cycle
IRM	Internal Revenue Manual
IRS	Internal Revenue Service
IT	Information Technology
TAS	Taxpayer Advocate Service
TASIS	Taxpayer Advocate Service Integrated System



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Background

The Taxpayer Advocate Service (TAS) statutory mission as defined in Internal Revenue Code Section 7803(c) is comprised of four principal activities to:

- Assist taxpayers in resolving problems with the Internal Revenue Service (IRS).
- Identify areas in which taxpayers have problems in dealings with the IRS.
- To the extent possible, propose changes in the administrative practices of the IRS to mitigate problems.
- Identify potential legislative changes which may be appropriate to mitigate such problems.

The TAS has also developed strategic goals and foundations to guide its leadership. The three strategic goals are to: 1) resolve taxpayer problems accurately and timely; 2) protect taxpayer rights and reduce taxpayer burden; and 3) become a known Taxpayer Advocacy Organization. The Taxpayer Advocate Service Integrated System (TASIS) strategic foundations include enhancing TAS infrastructure to improve taxpayer interaction, and sustaining and supporting a fully engaged and diverse workforce.

The TASIS is an important undertaking in the IRS's efforts to bring the tax advocacy systems into the 21st century. The current systems supporting the TAS have not kept pace with rapid innovations in technology and the explosion of online interaction capabilities for TAS employees and their customers. The number of electronic avenues TAS employees have to communicate and collaborate with other IRS employees and taxpayers requesting their assistance is restricted. The primary system for tracking cases that are managed by the TAS is described as obsolete. Multiple technology platforms also require excess maintenance efforts, upgrades, and general administration resources.

Drivers for a new TAS system also include management's need for an improved integrated system to better support TAS employees and the taxpayers that they assist. Linking all TAS applications within a single integrated system has been part of the TAS's plans for more than a decade. Successful development and implementation of the planned TASIS would enable the National Taxpayer Advocate and the estimated 1,000 case advocates to better address taxpayers' needs on a range of requests for assistance. The IRS's Information Technology (IT) organization and the TAS have separate missions with their own distinct roles and responsibilities related to systems development. According to the TASIS Project Management Plan dated January 2013, the IT organization Project Manager responsibilities include planning project activities; delivering the project scope within cost and scheduled target dates; and tracking, monitoring, and reporting risks. The TAS is identified as the customer responsible for interfacing with the



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project team. Our review focused on the first release of the TESIS Project, which included designing, managing, and documenting TAS case advocacy functionality including new integrated case management capabilities. Appendix IV provides additional information on activities and milestones¹ for the TESIS Project.

This review was performed at the IRS National Headquarters and the National Taxpayer Advocate office in Washington, D.C., and the IRS IT organization and TESIS Program Management Office in New Carrollton, Maryland, during the period November 2013 through May 2014. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. Detailed information on our audit objective, scope, and methodology is presented in Appendix I. Major contributors to the report are listed in Appendix II.

¹ A milestone is an investment management decision point placed at a natural breakpoint in the life cycle, which allows the project to proceed to the next phase.



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Results of Review

The Internal Revenue Service Has Initiated Efforts to Redirect the Taxpayer Advocate Service Integrated System Project

Department of the Treasury procedures for information technology strategic planning and portfolio management² require effective planning and execution of development activities and the use of a standardized systems development life cycle methodology. The IRS relies on its Enterprise Life Cycle (ELC) methodology to guide systems development activities. The ELC Framework focuses on designing and implementing technologies that meet business objectives, and it supports multiple paths including Waterfall and Commercial Off-the-Shelf (COTS) methods.³ Initially, the IRS selected the ELC Waterfall path for TESIS systems development; however, the project was later refocused under a COTS path within the ELC Framework.

During Calendar Year 2008, the TAS took action to begin redesigning its existing systems to efficiently and effectively advocate for taxpayers. In June 2010, the TAS initiated a collaborative effort with the IRS IT organization⁴ to develop a long-range strategy to modernize and consolidate the TAS's systems. In June 2012, the TESIS was redirected under a COTS ELC path. In that time frame, the TESIS Business System Concept Report stated that the system was to be delivered in multiple releases to provide usable functionality incrementally. Each release needed to build on the previous deliverable, until all required functionality has been delivered. According to the report, TESIS requirements were considered too vast for a single release without exceeding a designated 18- to 24-month window for deliverables. Specific TESIS capabilities expected for Release 1 were focused on case management functionality and included:

- Database Integration that provides consolidation of TAS systems to gain efficiencies in data management and systems operation.
- Work Management that provides tools to support work distribution and tracking.
- Resources Management capability to assign work quickly to employees with the necessary skill sets and workload capacity.

² Department of the Treasury, *Procedures for Strategic Planning and Portfolio Management* (Feb. 2011).

³ Pre-packaged computer software for a particular purpose or application developed by a vendor for sell to numerous companies and organizations or a standard technical infrastructure component.

⁴ In June 2010, the IRS IT organization was known as Modernization and Information Technology Services organization.



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- Data Management that leverages new standard tools to improve usability of data and reduce repeated storage or transcription.
- Document Management that provides document handling to support a geographically diverse workforce, improves document security and control, optimizes workflow, and manages document retention and archival requirements.
- Records Management that improves the TESIS's ability to comply with records retention standards.
- Measurement and Evaluation that provides tools and data elements to support the ability to measure program quality and effectiveness.
- Communication that supports delivery of communications such as guidance, announcements, reports, and testimony to TAS and IRS employees, taxpayers, practitioners, Congress, and other stakeholders.

Following multiple delays and escalating management concerns with the early development efforts for the TESIS Project, the IRS initiated activities to redirect the project in January 2014. Our review considered the activities completed during this time frame with a Customer Technical Review (CTR) that was completed for the TESIS. We also assessed key requirements management and risk mitigation controls for the TESIS Project and found that improvements are needed.

The IT organization performed a CTR of the TESIS

The purpose of the TESIS CTR was to review select artifacts⁵ produced by the project and to verify the design. The IRS appointed an executive to facilitate the TESIS CTR process which involved the IT organization, the TAS, and the TESIS contractor. This rigorous review for TESIS Release 1 capabilities was intended to demonstrate the user experience and to assist the TAS, as the business process owner, with approval decisions for key artifacts. This process focused on ensuring stakeholder feedback, identifying weaknesses, resolving issues, and initiating corrective actions. Specifically, the CTR was initiated to resolve TAS management concerns before the planned December 2014 deployment date for Release 1 of the TESIS.

The overall CTR process was focused on developing and implementing an action plan for resolving recognized TESIS systems development issues. The new requirements management expert joined the IT organization in January 2014 to lead CTR activities and to redirect the project.

⁵ An artifact is the output of an activity performed in a process or procedure. Artifacts are created throughout the life cycle of a project and can support either project management or the information technology technical solution, such as the design.



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The IT organization added requirements management support

In order to improve and stabilize system requirements, the IT organization added a subject matter expert to the TESIS Project who was knowledgeable in IRS requirements management processes. Following the CTR process, staff were also transferred to the project from the Requirements Engineering Program Office. The IRS has also acquired supplemental contract services to assist with clarifying and stabilizing TESIS system requirements. The overall goal of these actions was to develop a high-level Fiscal Year 2015 systems development plan for the TESIS, which was expected to be completed by September 2014. However, on March 28, 2014, the TAS advised the Treasury Inspector General for Tax Administration that all systems development for the TESIS was placed on hold due to funding issues. Under these conditions, the IRS has not yet demonstrated a viable corrective action plan to effectively redirect the TESIS Project and meet the planned December 2014 deployment date for Release 1.

The IT organization added risk management support

In January 2014, in order to improve and mitigate risks for the TESIS Project, the IT organization also supplemented the team by adding a subject matter expert who was knowledgeable in risk management processes. This information technology expert assisted the TESIS Project in outlining the necessary steps to review, evaluate, and correct risks captured in the Item Tracking, Reporting, and Control System, the official risk repository.⁶

Requirements Management Practices Were Not Sufficient to Successfully Deliver Initial Case Management Functionality

Although the TESIS Project has recently initiated targeted efforts to improve systems development activities, consistent and reliable practices were not in place in key areas including: requirements management; risk mitigation; key roles, responsibilities, and resources; and sufficient business requirements to guide initial systems development activities.

According to Internal Revenue Manual (IRM) 2.16.1, requirements management is the process by which requirements of all types are defined, managed, and formalized. In addition, the *Requirements Engineering Program Office Requirements Handbook* states that the functional baseline is the initial specifications established at the ELC Domain Architecture Phase (Milestone 2).⁷

⁶ Internal Revenue Manual 2.16.1, *Enterprise Life Cycle Guidance* (Apr. 2012).

⁷ IRM 2.16.1, *Enterprise Life Cycle Guidance* (Apr. 2012), states that the Business Solution Architecture Stage is the second of two stages in the Domain Architecture Phase (Milestone 2). This stage requires specification of a complete set of business system requirements in conjunction with a set of detailed models that depict design of the future business system from all solution perspectives.



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In November 2011, TESIS requirements were baselined⁸ and approved after the Milestone 2 exit. However, as of April 2014, after 37 months and approximately \$10.76 million in expenditures for this critical systems development effort, the necessary requirements still are not clarified or stabilized sufficiently to ensure that TAS operational needs will be met under the COTS path that was charted for the TESIS. Further, the initial systems development process for the TESIS did not include all stakeholders to consider management priorities at key decision points.

Major decisions points that occurred from June 2012 through March 2014 affected the project and resulted in increased costs and multiple delays. Figure 1 lists these major events.

Figure 1: Major Decision Points Affecting the TESIS

Date	Event
June 2012	The ELC path for the TESIS was switched from Waterfall to COTS.
October 2012 – Summer 2013	The IT organization conducted numerous requirements clarification sessions with the TAS.
July 2013	During the TESIS Executive Steering Committee meeting, the following items were discussed as affecting the project schedule by 65 business days: 1) adoption of new technology and revised schedule resulting in a delivery date change, 2) impact from the Detroit power shutdown, 3) sequestration, and 4) additional time requested by the Enterprise System Testing organization for Systems Acceptance testing.
October – December 2013	The IRS introduced a new software version for Windows, which prevented the TESIS Project from accessing the IRS’s standard tool for risk management.
January 2014	The CTR was performed that enabled the IRS to establish an action plan for resolving items identified during the review.
March 2014	The IT organization is under a funding pause. Systems development activities are currently limited, and it is unclear when the TESIS will be deployed.

Source: Treasury Inspector General for Tax Administration analysis of TESIS documentation.

Our review found that various IRS stakeholders with shared responsibilities and interests for this important new system were not sufficiently guided by a coordinated team approach to ensure successful systems development for the TESIS. Specifically, we identified the following conditions:

⁸ Baseline is a specification or product that has been formally reviewed and agreed on and thereafter serves as a basis for further development. It is changed only through formal change procedures.



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- The IT organization made major decisions for the TESIS Project without sufficient consultation with the TAS, such as the selection of Entellitrak® as the COTS package and identification of project risks.
- The project was negatively affected by staff turnover, a lack of knowledge transfer, limited information technology management expertise, and an ineffective working relationship between the TAS and the IT organization.

Further, effective requirements management is a crucial risk mitigation control for establishing and meeting both program and user expectations and for providing a basis for management's acceptance of a new system. If system requirements are not adequately clarified and stabilized, key development activities are often jeopardized. Due to insufficient project management resulting from these two conditions, the TESIS Project was repeatedly delayed. As a result, important business requirements have not yet been adequately addressed. Continued delays for planned TESIS capabilities could also affect taxpayers who rely on TAS services.

Recommendation

Recommendation 1: The Chief Technology Officer and the National Taxpayer Advocate should develop a complete set of system requirements that are sufficient to guide the TESIS Project in accordance with established guidelines.

Management Response: The IRS agreed with this recommendation. The IRS stated that the IT organization, the Applications Development organization, and the TAS have created a TESIS Requirements Tiger Team, which has been tasked with developing and documenting a complete set of systems requirements.

Risk Management Controls Were Not Followed to Manage Systems Development Risks

IRM 2.16.1 also defines risk management as the process of identifying, monitoring, and mitigating project and program risks. This guidance establishes the Item Tracking, Reporting, and Control System as the IT organization's Enterprise Risk Tracking database for all projects guided by the ELC Framework, including the COTS systems development path.

However, the TESIS Project did not consistently follow this established risk management process to identify, monitor, and mitigate significant risks during the TESIS's systems development since the project's Milestone 2 exit point in June 2012. Specifically, we identified the following conditions:



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- The TESIS Project did not develop a project-specific risk management plan⁹ to identify, monitor, and mitigate risks. IT organization officials stated that the TESIS Project followed the Internal Management Domain Risk Management Plan, which addresses risks at a high level and does not provide specific procedures to mitigate system-specific risks.
- The TESIS Review Board Charter states that the Risk Review Board establishes a framework and process for ensuring that TESIS Project issues and risks are appropriately assigned, escalated as required, and completed and/or resolved in a timely manner. However, the TESIS Risk Review Board was not established until 37 months after the June 2010 start date and following concerns that risks for the system were not being addressed. During our audit, IT organization officials for the TESIS acknowledged that risk management processes needed improvement to ensure the consistent and timely resolution of TESIS risks. The IRS also informed us that the TESIS Project was hindered due to a high level of staff turnover, a lack of knowledge transfer, and limited IT organization staff.
- The TESIS Project did not consistently capture and monitor all risks through the required Item Tracking, Reporting, and Control System. IT organization officials stated that while the TESIS Project did use the Item Tracking, Reporting, and Control System, it also relied on separate SharePoint and Excel spreadsheets to capture and track risks.

Further, our review found that the TESIS Project was funded through the annual Out-of-Cycle proposal funding process,¹⁰ which was contingent on year-to-year availability of funds and changes in priorities. As a result, the TESIS Project has been jeopardized during this time of heighten fiscal constraints.¹¹ Continued delays in system delivery to address TAS business needs for an integrated system that will support more than 1,000 TAS employees could also affect taxpayers who rely on TAS services.

Recommendations

The Chief Financial Officer, Chief Technology Officer, and National Taxpayer Advocate should:

Recommendation 2: Prepare a multiyear budget request and detailed business case to stabilize the funding for the system development activities for the TESIS.

⁹ IRM 2.16.1, *Enterprise Life Cycle Guidance* (Apr. 2012), states the Project Management Plan is a requirement for projects and is a key project planning document. The Project Management Plan consists of several subsidiary plans, such as the risk management plan.

¹⁰ An Out-of Cycle proposal is a current year business priority request for Development, Modernization, or Enhancements to add new or enhanced information technology functionality to IRS systems or Non-Development Modernization, or Enhancements, *e.g.*, software, hardware, or licenses.

¹¹ Our review did not include a detailed analysis of the funding process followed for the TESIS Project.



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Management Response: The IRS agreed with this recommendation. The IRS stated that it is currently under significant budget constraints and is expecting continuing budget constraints in Fiscal Year 2015. Multiyear funding for the TASIS would require the Chief Financial Officer, Chief Technology Officer, and National Taxpayer Advocate to justify the need for the system against other critical systems requiring funding. Consequently, the IT organization will work with the Chief Financial Officer and the National Taxpayer Advocate to develop a Release Plan to address a multiyear budget to support systems development activities for the TAS with the caveat that if the TASIS is not funded, this corrective action will be obsolete.

Recommendation 3: Ensure adherence to applicable risk management processes for identifying, monitoring, and mitigating TASIS risks in accordance with established IRM guidelines.

Management Response: The IRS agreed with this recommendation. The IRS stated that the IT organization recently established a new Risk Review Board, which was chartered to implement additional process improvements to ensure that all risks are identified and clearly articulated with mitigation plans documented and tracked. However, because Risk Review Board activities are currently on hold with the funding pause, the IRS will revisit this corrective action once the project resumes and ensure that the Risk Review Board charter is fully implemented and that the risk management plan is updated to reflect the new governance structure.

Critical Roles and Responsibilities Were Not Established or Clearly Communicated

IRM 2.16.1 requires a project charter for new IRS projects following an ELC path. A project charter should clearly define key areas of authority and responsibility, and establish appropriate lines of reporting. Also, IRM 10.8.1 requires a designated authorizing official for each organizational information system.¹² Authorizing officials address a critical role and key responsibilities to ensure that system security controls are adequate.

However, the TASIS Project did not ensure that key roles and responsibilities were established or communicated during initial systems development. Specific conditions include:

- A Memorandum of Understanding was finalized after 10 months designating responsibility to the TAS organization to provide the Authorizing Official¹³ for the TASIS. However, the authorizing official role was not yet assumed by the TAS at the end of our review.

¹² IRM 10.8.1, *Information Technology Security Policy and Guidance* (Dec. 2013).

¹³ The authorizing official has the authority to formally assume responsibility for operating an information system at an acceptable level of risk.



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- The business analyst¹⁴ role for the TAS was not established until March 2013.
- Other critical IT organization leadership roles including the TESIS Project Manager and Requirements Manager positions experienced high turnover.

Without defined, documented, and approved key roles and responsibilities for the TESIS Project, important risk mitigation activities were not effective. Further, these conditions were exasperated because the various IRS stakeholders with key responsibilities and interests for this new system were not guided through a team approach that was focused on long-term success.

Recommendation

Recommendation 4: The Chief Technology Officer and the National Taxpayer Advocate should ensure that critical roles and responsibilities are identified and applied to ensure the long-term success going forward with all new systems development activities for the TAS.

Management Response: The IRS agreed with this recommendation. The Chief Technology Officer will work with the National Taxpayer Advocate to clearly identify and document critical roles and responsibilities, which will be applied to the TESIS to ensure long-term success for the new systems development activities.

System Requirements Have Not Yet Been Sufficiently Verified to Ensure That Taxpayer Advocate Service Business Needs Will Be Met With the Selected Commercial Off-the-Shelf Product

IRM 2.16.1 requires that COTS software products provided under the ELC COTS path satisfy at least 80 percent of the requirements for a planned IRS system.

At the direction of the IT organization, the TESIS Project transitioned from its initial ELC Waterfall systems development path to a COTS path in June 2012. Specifically, the Entellitrak product was selected as the COTS solution for the TESIS following Milestone 2. However, our review found that system requirements were not sufficiently mapped to the Entellitrak product functionality to determine whether this COTS solution could meet TESIS requirements as required by the IRM. We also found that beyond Entellitrak case management functionality planned for the TESIS, there are more than 200 other case management applications across the IRS enterprise.¹⁵ This approach for developing case management functionality should be carefully reconsidered to address three important information technology management areas: 1) customer service, 2) system integration and efficiencies, and 3) data integrity and sharing.

¹⁴ The business analyst serves as a liaison among stakeholders to elicit, analyze, communicate, and validate requirements for changes to business processes, policies, and information systems.

¹⁵ This audit did not include a detailed review of all IRS case management applications.



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IT organization officials informed us that the required mapping is considered the contractor's responsibility. However, the Entellitrak contractor informed us that because Entellitrak is a COTS product, it did not map the requirements for the TESIS during the acquisition process. By not completing this verification process, the IRS has proceeded with the selection and investment in the Entellitrak product without vital information regarding specific system requirements.

The IRS is currently reevaluating its overall approach for case management applications, including the TESIS. In March 2014, the TESIS Project, along with other case management projects, was placed under a funding pause, and reassessment of these development efforts is underway.¹⁶ Further, the TAS has not yet accepted initial deliverables for TESIS Release 1.

Because the IT organization has not yet verified that Entellitrak will adequately support TESIS Project requirements, uncertainty remains about the viability of the current COTS path approach for TESIS systems development, and the IRS is unsure that TAS business needs will be met with this product as planned.

Recommendation

Recommendation 5: The Chief Technology Officer and the National Taxpayer Advocate should verify Entellitrak functionality or possible alternative solutions for case management to the TAS's system requirements to ensure that TAS business needs will be met.

Management Response: The IRS disagreed with this recommendation. The IRS stated that it will continue to conduct requirements elicitation and project management processes following applicable ELC methodology.

Office of Audit Comment: The IRS did not agree with our conclusion that it should verify Entellitrak functionality to the TAS's system requirements to ensure that TAS business needs will be met. The IRS's alternative analysis for the TESIS lists the high-level business technical requirements. However, it does not demonstrate that Entellitrak will provide an optimal or acceptable solution to meet TAS business needs, including integrated case management capabilities and other requirements for the system. We believe that the IRS needs to consider a more complete set of system requirements for TESIS case management functions to map to Entellitrak as part of its ongoing project management processes.

¹⁶ TIGTA, Ref. No. 2014-20-08, *The Information Reporting and Document Matching Case Management System Could Not Be Deployed* (Sept. 2014).



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Appendix I

Detailed Objective, Scope, and Methodology

The overall objective of this review was to determine whether the IRS is adequately mitigating systems development risks for the TESIS Project to achieve business and information technology goals. To accomplish our objective, we:

- I. Determined if the TAS has implemented key management controls and processes for requirements management, change management, and risk management, including budgeting and funding to guide systems development for the new TESIS.
 - A. Determined TAS roles and responsibilities for the TESIS Project.
 - B. Assessed the requirements management processes followed during systems development in accordance with applicable guidance.
 - C. Determined if the change management processes followed during systems development were in accordance with applicable guidance.
- II. Determined if the TESIS Program Management Office has implemented key systems development controls within the IRS ELC COTS path methodology for the TESIS Project in accordance with Department of the Treasury, IRM, and other applicable guidance.
 - A. Obtained and reviewed current systems development guidance being applied to develop the TESIS.
 - B. Assessed the requirements management processes followed during systems development in accordance with applicable guidance.
 - C. Determined whether the IT organization is adequately managing the risks for the change management processes for the TESIS Project.
 - D. Determined whether the IT organization is adequately managing risks for the TESIS Project.
- III. Determined if the IRS implemented effective oversight activities and Systems Development Life Cycle disciplines to manage the systems development processes for the TESIS Project.
 - A. Determined how the IRS has applied Systems Development Life Cycle disciplines to mitigate risks for TESIS systems development.



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Internal controls methodology

Internal controls relate to management's plans, methods, and procedures used to meet their mission, goals, and objectives. Internal controls include the processes and procedures for planning, organizing, directing, and controlling program operations. They include the systems for measuring, reporting, and monitoring program performance. We determined that the following internal controls were relevant to our audit objective: IRM, ELC, IT organization, and TAS policies and procedures related to the systems development of the TESIS. We evaluated these controls by interviewing IRS management and staff from the Applications Development, Financial Management Service, Cybersecurity, and IT organizations; reviewing policies and procedures outlined in the IRM; and reviewing relevant supporting documentation.



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Appendix II

Major Contributors to This Report

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Appendix III

Report Distribution List

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Successfully Plan and Deliver the New Taxpayer Advocate
Service Integrated System*

Appendix IV

*Taxpayer Advocate Service Integrated System
Development Activities and Timeline*

TASIS Systems Development Activity	Date
The IRS Executive Board places the TASIS as a priority. The TAS took action to begin redesigning its existing systems to enable the IRS to more efficiently and effectively advocate for taxpayers.	April 2008
TASIS development funding was approved.	April 2010
The TAS initiated a collaborative effort with the IRS IT organization ¹ to develop a long-range strategy to modernize and consolidate TAS systems.	June 2010
TASIS Release 1.0 actual Milestone ² 1 exit.	February 2011
The Solutions Engineering function completes second Alternative Analysis and recommends Entellitrak® as the platform for the TASIS.	May 2012
The TASIS Project changed the ELC path from Waterfall to COTS because of new technology advances.	June 2012
Milestone 3/4a (preliminary/detailed) design combined.	June 2012
TASIS Release 1.0 System Design activities begin.	June 2012
MicroPact, owner of the Entellitrak COTS package, contract is awarded.	September 2012
Kickoff meeting with the IT organization, MicroPact, and the TAS.	September 2012
The National Taxpayer Advocate proposed a conditional deployment date for the TASIS of October 1, 2014.	July 2013
The TASIS Risk Review Board was chartered.	July 2013
The TASIS Executive Steering Committee approved the National Taxpayer Advocate's proposed October 2014 go-live date and conditions.	July 2013
The CTR was performed that enabled the IRS to establish an action plan for resolving items identified during the review.	January 2014

¹ In June 2010, the IRS IT organization was known as the Modernization Information Technology Services organization.

² A milestone is an investment management decision point placed at a natural breakpoint in the life cycle which allows the project to proceed to the next phase. Milestone 1 is the project initiation phase.



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Appendix V

Management's Response to the Draft Report



CHIEF TECHNOLOGY OFFICER

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

September 16, 2014

MEMORANDUM FOR DEPUTY INSPECTOR GENERAL FOR AUDIT

FROM:

Terence V. Milholland
Chief Technology Officer

Nina E. Olson /s/ 09/09/2014
National Taxpayer Advocate

SUBJECT: Draft Audit Report #201420014 - *Information Technology:
Improvements Needed to Successfully Plan and Deliver the New
Taxpayer Advocate Service Integrated System*

Thank you for the opportunity to review your draft audit report and to discuss earlier draft report observations with the audit team. We readily welcome the identified recommendations that will help the Taxpayer Advocate Service Integrated System (TASIS) project improve and move forward; however, we have some clarifying comments to ensure the report contains full disclosure of factual information. We respond to each of the recommendations in the attached document, along with our planned corrective actions, responsible officials, and implementation dates.

The successful creation and launch of TASIS is of critical importance to the Taxpayer Advocate Service (TAS), the IRS operating divisions and to the taxpayers we serve. This integrated case, project and work assignment system will allow seamless movement and access to cases, projects, research and archives; thus, bringing us into the 21st century and the digital age. Although we believe the TASIS project has made significant progress over the past several years, we acknowledge there is room for improvement. In this memorandum, we discuss several concerns and clarify certain points discussed in the draft report.

- *Delineation of IT's and TAS's respective roles.* For clarity, we note that Information Technology (IT) and TAS are separate organizations with their own distinct functions and roles (*i.e.*, IT provided the resources to execute the system development and has overall project responsibility, while TAS is the customer providing the business expertise for the project). The report does not clearly describe those roles.
- *The Sole Reason for the Current Pause in the TASIS Project Is Lack of Funding.* As we explained to the audit team, the TASIS development activities were paused due to a lack of funding, not as a consequence of unforeseen activities. The IRS is currently under significant budget constraints and the Service is



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expecting continuing budget constraints in fiscal year 2015. Multi-year funding for TASIS would require the Chief Financial Officer (CFO), Chief Technology Officer (CTO), and National Taxpayer Advocate (NTA) to justify the need for the system against other critical systems requiring funding. Therefore, the funding of the TASIS is subject to overall budgets and prioritization of essential taxpaying operations.

- *The IRS Established a TASIS Risk Review Board to Establish Management Controls.* We disagree with the report's assertion that established risk management controls were not followed. On May 2, 2013, IT collaborated with TAS to create a Risk Review Board (RRB) and develop a RRB Charter as a governing artifact for RRB operations and as a supplement to the Risk Management Plan. The Risk Management Plan was followed throughout the TASIS development cycle. Also, the Governance Board and Executive Steering Committee (ESC) met on a regular basis to discuss the risks. The IRS does acknowledge that the initial approach required additional rigor to manage program risks more effectively. As a result, documented improvements to the process were implemented in September 2013, and again in March 2014. All risks are now reported to the RRB for discussion and entered in *Item Tracking Reporting and Control* (ITRAC). Risks are also listed and discussed in the TASIS Governance Board and ESC and remaining risks are continuing to be evaluated and mitigated during the funding pause.
- *The IT Organization Performed a Customer Technical Review of TASIS Upon TAS's Request.* We note that on or around February 2014, IT initiated a Customer Technical Review (CTR) and Executive Technical Review (ETR) of the TASIS project at the request of TAS to ensure that the current design met TAS business needs and documented approved requirements. The CTR and ETR walked through several high level business scenarios, which resulted in identification of a number of concerns that are being addressed by the Requirements Tiger Team (RTT).
- *The Authorizing Official Is a FISMA Requirement.* The Authorizing Official's (AO) role is a Federal Information Security Management Act (FISMA) requirement, not necessarily a requirement of other project plans. We acknowledge improvements were necessary to resolve issues, such as the AO assignment. TAS will accept the AO role under the terms of the Memorandum of Understanding. The transfer of AO ownership is delayed primarily due to the risk management documentation challenges outlined in this report. Those challenges must be remedied in order to provide a full security posture of the TASIS at transition. Per the CTO's direction, IT made changes to stabilize all aspects of project management and placed more focus on collaborating with the business on mutually agreeable solutions.
- *Although Unforeseen Events Have Delayed the Development and Implementation of TASIS, the IRS Has Taken Steps to Effectively Redirect the*



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Project. On page 5 of the report, TIGTA states that "the IRS may be unable to achieve its goal to effectively redirect the TASIS Project and meet the planned deployment date for Release 1." It is premature to suggest that the IRS has failed to effectively achieve our goal to redirect the TASIS. At the direction of the CTO, additional people and process changes, as well as robust requirements disciplines, were put in place and are being followed. In September 2013, IT and the Business reassessed the program and jointly issued *The Requirements Management and Change Process*. This documented activities and identified roles and responsibilities for its project team members. Program participants continued to refine requirements throughout design and development of the TASIS. Pursuant to direction from the TASIS ESC, efforts to ensure that both the business and IT have the same understanding of requirements and scope are continuing during the funding pause. On May 19, 2014, the NTA, IT, and MicroPact (*Entellitrak*) formed a Requirements Tiger Team (RTT), which has been tasked with developing and documenting a complete set of systems requirements. TAS has funded the RTT for fiscal year (FY) 2014; we anticipate that the team will complete its efforts prior to FY 2014 funding being exhausted.

Additionally, we disagree with the statement that "TAS system requirements were not mapped to the *Entellitrak* product functionality to determine whether this COTS solution could meet 80 percent of the TASIS Project requirements as required by the IRM." First, IRM 2.16.1 provides criteria and guidance for the selection of a specific Enterprise Life Cycle (ELC) path, not the specific Commercial-Off-the-Shelf (COTS) software package that will satisfy the business need. Secondly, IT provided a document entitled "Alternative Analysis for Taxpayer Advocate Service Integration Service (TASIS) Version 1.1" to TIGTA as part of this audit. The alternatives analysis was approved by the Director, Solutions Engineering on May 4, 2012 and was conducted in two phases. In phase one, IT completed an alternative analysis which reviewed four possible solutions: 1. Status Quo, 2. Custom JAVA solution, 3. Account Management Services (AMS) solution, and 4. COTS centered solution. Phase two was an additional alternatives analysis conducted by IT Solution Engineering, narrowed to solutions three and four as identified above.

The alternatives analysis was based upon five, weighted rating criteria: 1. Technical Capability, 2. Cost, 3. Schedule, 4. Risk, and 5. Enterprise Architecture (EA) Compliance. The analysis results indicated that *Entellitrak* rated higher than the AMS solution in all rating criteria and was selected as the solution that best met the overall TASIS needs. The Technical Capability rating was based on the capability to extend the *Entellitrak* out of the box capability to meet the business requirements, the resulting complexity of the system, the user interface's usability, and the scalability of the system. Appendix A2 of the analysis lists the 88 high level business technical requirements that were mapped to the *Entellitrak* COTS package and used in the scoring of the alternatives.

We are committed to continuously improving our information technology systems and processes. We value your continued support and the assistance and guidance your



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team provides. If you have any questions, please contact me on (240) 613-9373 or
Nina Olson at (202) 317-6100.



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Attachment

Information Technology: Improvements Needed to Successfully Plan and Deliver the New Taxpayer Advocate Service Integrated System (201420014)

RECOMMENDATION #1: The Chief Technology Officer and the National Taxpayer Advocate should develop a complete set of system requirements that are sufficient to guide TESIS in accordance with established guidelines.

CORRECTIVE ACTION #1: The IRS agrees with this recommendation. Information Technology (IT), Applications Development (AD) and the Taxpayer Advocate Service (TAS) have created a TESIS Requirements Tiger Team (RTT), which has been tasked with developing and documenting a complete set of systems requirements. TAS has funded the RTT for fiscal year (FY) 2014; we anticipate that the team will complete its efforts prior to FY 2014 funding being exhausted. The IRS is currently under significant budget constraints and the Service is expecting additional budget cuts in FY15. Multi-year funding for TESIS would require the CFO, CTO, and NTA to justify the need for the system against other critical systems requiring funding.

IMPLEMENTATION DATE: October 25, 2014

RESPONSIBLE OFFICIALS: Associate Chief Information Officer, Applications Development; TAS Executive Director, Business Modernization

CORRECTIVE ACTION MONITORING PLAN: We enter accepted Corrective Actions into the Joint Audit Management Enterprise System (JAMES). These Corrective Actions are monitored on a monthly basis until completion.

RECOMMENDATION #2: The Chief Financial Officer, Chief Technology Officer and the National Taxpayer Advocate should prepare a multiyear budget request and detailed business case to stabilize the funding for the system development activities for TESIS.

CORRECTIVE ACTION #2: The IRS agrees with this recommendation. The IRS is currently under significant budget constraints and the Service is expecting continuing budget constraints in FY 2015. Multi-year funding for TESIS would require the CFO, CTO, and NTA to justify the need for the system against other critical systems requiring funding. Consequently, IT will work with the CFO and the NTA to develop a Release Plan to address a multi-year budget to support system development activities for TAS with the caveat that if TESIS is not funded, this corrective action will be obsolete.

IMPLEMENTATION DATE: November 25, 2014

RESPONSIBLE OFFICIAL: Associate Chief Information Officer, Applications Development

CORRECTIVE ACTION MONITORING PLAN: We enter accepted Corrective Actions into the Joint Audit Management Enterprise System (JAMES). These Corrective Actions are monitored on a monthly basis until completion.



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RECOMMENDATION #3: The Chief Financial Officer, Chief Technology Officer and the National Taxpayer Advocate should ensure adherence to applicable risk management processes for identifying, monitoring, and mitigating TASIS risks in accordance with established IRM guidelines.

CORRECTIVE ACTION #3: The IRS agrees with this recommendation. The IRS ensured that reliable risk management controls, which followed established IRM guidelines, were followed throughout the project lifecycle. Recently, IT established a new Risk Review Board (RRB), which was chartered to implement additional process improvements to ensure all risks are identified and clearly articulated with clear mitigation plans, documented and tracked. Improvements were also made in the quality and types of risks reported by the TASIS project. As a result, more robust, effective, project management practices were put in place. However, because RRB activities are currently on hold with the funding pause, we will revisit this corrective action once the project resumes and ensure that the RRB charter is fully implemented and that the risk management plan is updated to reflect the new governance structure.

IMPLEMENTATION DATE: October 25, 2014

RESPONSIBLE OFFICIALS: Associate Chief Information Officer, Applications Development; TAS Executive Director, Business Modernization

CORRECTIVE ACTION MONITORING PLAN: We enter accepted Corrective Actions into the Joint Audit Management Enterprise System (JAMES). These Corrective Actions are monitored on a monthly basis until completion.

RECOMMENDATION #4: The Chief Technology Officer and the National Taxpayer Advocate should ensure that critical roles and responsibilities are identified and applied to ensure long-term success going forward with all new system development activities for TAS.

CORRECTIVE ACTION #4: The IRS agrees with this recommendation. The CTO will work with the NTA to, clearly, identify and document critical roles and responsibilities, which will be applied to the TASIS to ensure long-term success for the new systems development activities.

IMPLEMENTATION DATE: October 25, 2014

RESPONSIBLE OFFICIALS: Associate Chief Information Officer, Applications Development; TAS Executive Director, Business Modernization



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CORRECTIVE ACTION MONITORING PLAN: We enter accepted Corrective Actions into the Joint Audit Management Enterprise System (JAMES). These Corrective Actions are monitored on a monthly basis until completion.

RECOMMENDATION #5: The Chief Technology Officer and the National Taxpayer Advocate should verify Entellitrak functionality or possible alternative solutions for case management to TAS's system requirements to ensure that TAS business needs will be met.

CORRECTIVE ACTION #5: The IRS disagrees with this recommendation. We will continue to conduct requirements elicitation and project management processes following applicable Enterprise Life Cycle (ELC) methodology.

IMPLEMENTATION DATE: N/A

RESPONSIBLE OFFICIAL: N/A

CORRECTIVE ACTION MONITORING PLAN: We enter accepted Corrective Actions into the Joint Audit Management Enterprise System (JAMES). These Corrective Actions are monitored on a monthly basis until completion.