TREASURY INSPECTOR GENERAL FOR TAX ADMINISTRATION



The Integrated Enterprise Portal Is Operating As Designed; However, Increased Contract Oversight Is Necessary

May 5, 2015

Reference Number: 2015-20-033

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.

<u>Redaction Legend</u>: 2 = Risk Circumvention of Agency Regulation or Statute

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HIGHLIGHTS

THE INTEGRATED ENTERPRISE PORTAL IS OPERATING AS DESIGNED; HOWEVER, INCREASED CONTRACT OVERSIGHT IS NECESSARY

Highlights

Final Report issued on May 5, 2015

Highlights of Reference Number: 2015-20-033 to the Internal Revenue Service Chief Technology Officer and Chief, Agency-Wide Shared Services.

IMPACT ON TAXPAYERS

The IRS relies on its Integrated Enterprise Portal to ensure the success and security of electronic filing. Additionally, the Integrated Enterprise Portal serves as a preferred channel for interactions with the IRS, is currently the primary information source for taxpayers and tax professionals, and plays a central role in advancing taxpayer issue resolution, providing timely guidance and outreach, and improving service interactions for all taxpayers.

WHY TIGTA DID THE AUDIT

The overall audit objective was to assess the effectiveness of the Integrated Enterprise Portal. This review is part of our Fiscal Year 2015 Annual Audit Plan and addresses the major management challenge of Providing Quality Taxpayer Service Operations. In August 2012, the IRS began a consolidation of its three separate user portals into one shared portal. The IRS's overall goal of this consolidation is to provide modernized user experiences, information, and functionality while lowering total costs.

WHAT TIGTA FOUND

The IRS used an Integrated Enterprise Portal capacity planning process to manage current and future capacity and performance aspects of the information technology infrastructure. However, the IRS did not always review, verify, and maintain appropriate invoice documentation prior to releasing payment for contractor services.

TIGTA's review of the three contractor invoices for January, February, and March 2014 showed 161 instances in which hours were billed for work performed by contractor employees outside the invoice period of performance. In addition, TIGTA found multiple contractor employees who billed more than 240 hours in a month that potentially resulted in \$405,679 in additional labor costs.

After TIGTA provided its results to the IRS, the IRS obtained additional detailed billing information from the contractor and conducted an analysis that determined there were only two instances of contractor employees billing over 240 hours. TIGTA was not provided the additional information and was unable to verify the analysis. Finally, business requirements were not sufficiently gathered and documented for the Integrated Enterprise Portal.

WHAT TIGTA RECOMMENDED

TIGTA recommended that the Chief Technology Officer ensure coordination between personnel responsible for invoice reviews, ensure that procedures are followed to verify charges invoiced prior to payment, and ensure that business requirements are gathered to develop system requirements. In addition, TIGTA recommended that the Chief Technology Officer and the Chief, Agency-Wide Shared Services, work with the contractor to resolve the potential billing errors identified and obtain a credit on future invoices, if warranted.

The IRS agreed with our recommendations. The IRS plans to follow established procedures and processes to review and reconcile invoices and verify all charges invoiced prior to payment. It also plans to continue using Enterprise Life Cycle procedures as the main tool for ensuring that requirements are captured and traced appropriately for future systems development and modernization projects.

Although the IRS provided additional information after TIGTA completed its review, TIGTA believes the IRS did not take the appropriate actions to ensure established processes and procedures were followed to verify questionable invoice items or to adequately gather and develop system requirements.



DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

May 5, 2015

MEMORANDUM FOR CHIEF TECHNOLOGY OFFICER CHIEF, AGENCY-WIDE SHARED SERVICES

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FROM:

Michael E. McKenney Deputy Inspector General for Audit

SUBJECT: Final Audit Report – The Integrated Enterprise Portal Is Operating As Designed; However, Increased Contract Oversight Is Necessary (Audit #201420022)

This report presents the results of our review to assess the effectiveness of the Internal Revenue Service's Integrated Enterprise Portal. This audit is included in the Treasury Inspector General for Tax Administration's Fiscal Year 2015 Annual Audit Plan under the major management challenge of Providing Quality Taxpayer Service Operations.

Management's complete response to the draft report is included as Appendix V.

Copies of this report are also being sent to the Internal Revenue Service managers affected by the report recommendations. If you have any questions, please contact me or Alan R. Duncan, Assistant Inspector General for Audit (Security and Information Technology Services).



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Abbreviations

COR	Contracting Officer's Representative
ELC	Enterprise Life Cycle
EUP	Employee User Portal
IEP	Integrated Enterprise Portal
IRM	Internal Revenue Manual
IRS	Internal Revenue Service
РРМО	Portal Program Management Office
PUP	Public User Portal
RUP	Registered User Portal
TIGTA	Treasury Inspector General for Tax Administration



Background

The Internal Revenue Service (IRS) strives to provide one-stop web-based services for the general public, Federal agencies, and tax professionals from multiple channels. Prior to August 2012, there were three distinct IRS portals¹ supporting the IRS user communities. One of the IRS's goals is to transform the technology platform for the three portals to one that is shared, which will lower its total cost of ownership. The modernized platform will also enable the IRS to provide enhanced online services to taxpayers.

In May 2011, the IRS entered into a 10-year contract (five base years, five option years) with a third party for managed web portal services. The contract has an overall ceiling price of \$320 million. The maximum aggregate dollar value of task orders awarded to the contractor cannot exceed the established contract ceiling. In the managed service contract,² the contractor is to provide daily operational and maintenance services for the Integrated Enterprise Portal (IEP) and the Employee User Portal (EUP). Even though the daily operation and maintenance of the IEP is managed by a third party, the IRS still remains ultimately accountable for the functionality and performance of the IEP infrastructure and the managed service contract.

The three IRS portals were the Public User Portal (PUP), the Registered User Portal (RUP), and the EUP.

- The PUP is the IRS external or Internet portal, IRS.gov, that allows unrestricted public access to nonsensitive materials and applications, including forms, instructions, news, and tax calculators. No authentication is required for access to any materials on the PUP. Between January 1, 2013, and December 31, 2013, the PUP received 1.85 billion page views³ and 459.6 million site visits.⁴
- The RUP is the IRS external portal that allows registered individuals and third-party users access to select tax processing and other sensitive systems, applications, and data. User registration and authentication is required to access the RUP. During Filing Season 2014,⁵ as of March 15, 2014, there were a total of 426,304 users on the RUP.
- The EUP is the internal IRS portal that allows IRS employee users to access IRS data and systems, such as tax administration processing systems, financial information

¹ A portal is a web-based infrastructure (hardware and software) that serves as the entry point for web access to applications and data.

² A managed service is the practice of outsourcing day-to-day management responsibilities and functions as a strategic method for improving operations and cutting expenses.

³ A page view is tracked by an analytics tracking code every time a request is made to the web server for a page.

⁴ A site visit represents the number of individual sessions initiated by all of the visitors to a website.

⁵ The period from January through mid-April when most individual income tax returns are filed.



systems, and other data and applications, including mission-critical applications. Registration and authentication are required for access to sensitive and mission-critical applications. During Filing Season 2014, as of March 15, 2014, there were a total of 62,213 users on the EUP.

In August 2012 the PUP was integrated to the IEP, and in September 2013 the RUP was integrated to the IEP. These integrations cost \$32.9 and \$60.04 million, respectively. The EUP has been temporarily migrated onto the IRS intranet until it is completely integrated to the IEP. The migration of the EUP is currently in the first of two six-month contract option periods providing the managed services of the existing EUP. If exercised, the next option period will be April through September 2015.

The contractor's performance is measured by Service Level Objectives, which are negotiated metrics that provide a clear understanding of the exact nature of the services provided. There are two main Service Level Objectives contracted for the IEP infrastructure: System Availability and System Response Times. The monthly Critical Performance Indicator Report captures the two metrics along with Bandwidth, Central Processing Unit Usage, and Storage Capacity.

This review was performed in the Portal Program Management Office (PPMO), Online Services, and Enterprise Operations organizations' offices located at the New Carrollton Federal Office Building in New Carrollton, Maryland; at the contractor site in Landover, Maryland; and at CenturyLink⁶ in Sterling, Virginia, during the period November 2013 through January 2015. 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.

⁶ CenturyLink manages the data centers used to house the IRS IEP infrastructure.



Results of Review

An Integrated Enterprise Portal Capacity Planning Process Was Used

The IEP Capacity Governance Board was established in January 2014. The board meets on a weekly basis with the IRS business units' representatives, the PPMO, and the contractor. During the meetings, the stakeholders discuss current capacity management issues and upcoming work requests requiring capacity, which come from the Technical Review Board.

In March 2014, the IRS implemented Internal Revenue Manual (IRM) 2.144.1.1.2, *Capacity Management, Capacity Management Policy*. This policy details the organization's processes for planning and managing current and future capacity and performance aspects of the information technology infrastructure. The IRM mandates that all Information Technology organizations responsible for capacity management activities follow the Basic Capacity Management Process to ensure the development of all activities and work products.

The Basic Capacity Management Process contains four pillars to assist stakeholders through the applications' implementation process. Figure 1 describes the stages of the Basic Capacity Management Process.

Stage	Definition				
Planning	With production cycle data, project leads determine the capacity baseline from data questions and real-time monitoring for monthly forecasting.				
Allocation	Uses provisioning, scheduling, presentations projections, and conditions to provide virtual machines ⁷ details to the PPMO.				
Execution	Monitors new application's input/output storage, usage, input and output per second, and logs for capacity usage in real-time monitoring of virtual machines.				
Adjustment	Uses data reports such as Incident Management, Patching, Deployment Rollback, and Low-Utilization and Virtual Machines Workload to adjust new and existing application's capacity.				

Figure 1: Basic Capacity Management Process

Source: IEP Capacity Governance dated November 2013.

⁷ Virtual machine is a tightly isolated software container that can run its own operating systems and applications as if it were a physical computer.



In addition, the IRS has employed two technical methods to manage capacity and redirect network traffic: the "waiting room" concept and auto-scaling. During Filing Season 2014, the IRS implemented the waiting room concept to minimize taxpayer wait time for the "Where's My Refund" application. The waiting room technology can be turned on in the event of excessive demand for the application. The technology works by catching traffic on its way to the "Where's My Refund" application and allowing only a percentage of traffic through the IEP. The remainder of the traffic is placed in a waiting room and presented with a web page requesting the taxpayer to be patient. The taxpayer's status is updated every 30 seconds. This cycle is repeated until the application traffic volume is beneath its threshold limit.

The other method of conserving capacity is auto-scaling. Auto-scaling is the use of virtual machines to allocate capacity from one application to another. When a virtual machine reaches 75 percent capacity, its workload is automatically balanced with other virtual machines that have capacity available to complete the work.

Personnel Did Not Always Review, Verify, and Maintain Appropriate Invoice Documentation Prior to Releasing Payment for Contractor Services

The IRM states that recording the receipt⁸ of goods and/or services and their subsequent acceptance⁹ is a key component to ensure the proper and accurate recording of obligation balances and to meet system and control requirements in accordance with statutory and regulatory requirements. IRS Procurement Office procedures state that the quality assurance function must be performed by the end user, contracting officer's representative (COR), or alternate COR after supplies are received or services are rendered, as set forth in the contract, and before acceptance is certified in the Integrated Procurement System. Specifically, the IRM procedures under Evidence of Inspection and Labor Hour Checks methods should be followed. The inspection documentation, signed by the end user, COR, or alternate COR should address, at a minimum, when the inspection took place, what was inspected, and the results of the inspection. For any contract or task order containing contract line items for labor hours, the number of hours incurred by the contractor's employees should be closely monitored by reviewing progress reports and timesheets, thereby linking performance to hours performed. Additionally, the IEP contract states that "the IRS must be able to monitor the cost, schedule, labor utilization of each task order against its baseline plan and schedule of deliverables." We identified several weaknesses in the oversight of the IEP contract.

⁸ Recording receipt acknowledges that the Government has taken delivery of the goods and/or services.

⁹ Recording acceptance acknowledges that the goods and/or services meet contractual requirements and that the Government is now obligated to pay the vendor.



We reviewed three IEP invoices to determine if the IRS was accurately monitoring the IEP contract activities.¹⁰ Of the 16 invoices prepared December 2012 through March 2014, we selected the January, February, and March 2014 invoices for review because those months would likely have more activity because the corresponding periods of performance fall during the filing season. Our review identified potential billing errors in the contractor invoices that should have been identified prior to payment of the invoice. Specifically,

- There were 161 instances in which hours were billed for work performed by contractor employees outside the period of performance. We identified 7,306.75 such hours for the three-month period at a cost of \$1,021,660.76. Paying invoices containing billed hours outside the period of performance without reviewing supporting documentation increases the risk of inappropriate payments. The IRS subsequently reviewed the invoices and determined the hours billed to be accurate.
- There were 12 instances in which contractor employees billed more than 240 hours¹¹ in one month, ranging from 298 to 917.5 hours. The total hours billed exceeding 240 hours were 2,929.5 at a cost of \$405,679. Figure 2 presents the contractor employees who billed more than 240 hours in a month.

Contractor Employee	Invoiced Hours	Hours Over 240	Hourly Rate	Cost Over 240 Hours	
1	298	58	\$127.90	\$7,418.20	
2	336	96	\$92.68	\$8,897.28	
3	344	104	\$117.65	\$12,235.60	
4	356	116	\$135.71	\$15,742.36	
5	367	127	\$92.68	\$11,770.36	
6	435	195	\$127.90	\$24,940.50	
7	486	246	\$135.71	\$33,384.66	
8	528	288	\$124.76	\$35,930.88	
9	545	305	\$138.15	\$42,135.75	
10	574	334	\$124.76	\$41,669.84	
11	623	383	\$207.86	\$79,610.38	
12	917.5	677.5	\$135.71	\$91,943.53	
Totals		2,929.5		\$405,679.34	

Figure 2: Contractor Employees Who Billed Excessive Hours

Source: Treasury Inspector General for Tax Administration's (TIGTA) reviews of the January, February, and March 2014 contractor invoices.

¹⁰ The three IEP invoices is a judgmental sample. A judgmental sample is a nonprobability sample, the results of which cannot be used to project to the population.

¹¹ The IRS agreed that 240 hours was a reasonable maximum number of hours a contractor could work in one month for the purposes of this analysis.



Management Action: After TIGTA provided the IRS the results of our analysis, the IRS obtained additional detailed billing information from the contractor and conducted further analysis. In its analysis, the IRS determined the instances of contractor employees billing for over 240 hours in a month occurred because the contractor is only able to submit invoices for subcontractor work once they receive an invoice from the subcontractor. In many instances, the invoices were for services provided over several months and for which the invoice voucher failed to properly account for the period of performance. When the hours are accounted for monthly, the IRS indicated there are only two instances for hours over 240 in a month. The IRS provided its summary results to TIGTA but did not provide the additional detailed documentation it obtained from the contractor supporting the analysis. Therefore, TIGTA was unable to verify the IRS's analysis.

• The invoices show inconsistent labor rates for contractor employees when compared to the Contractor's Price Book. For example, a systems architect claimed a \$207.86 hourly rate when the Contractor's Price Book shows an hourly rate for a systems architect at \$179.11 per hour. Figure 3 describes inconsistent labor rates invoiced for contractor employees when compared to the Contractor's Price Book.

Title	Employees	Book Rate Per Hour	Invoice Rate Per Hour	Rate Difference	Hours	Cost Above Book Rate
Senior IT Specialist	3	\$132.66	\$135.71	\$3.05	1,839.5	\$5,610.48
IT Specialist	2	\$96.09	\$117.65	\$21.56	448	\$9 <i>,</i> 658.88
Network Engineer	2	\$101.95	\$124.76	\$22.81	1,102	\$25,136.62
Systems Architect	1	\$179.11	\$207.86	\$28.75	623	\$17,911.25
Total						\$58,317.23

Figure 3: Potentially Inconsistent Labor Rates Billed to the IRS

*Source: TIGTA's reviews of the January, February, and March 2014 contractor invoices. *IT – Information Technology*

<u>Management Action</u>: After TIGTA briefed the IRS on test results identifying inconsistent billings of contractor employee labor rates, the IRS conducted further analysis and determined the discrepancy arose because the IRS provided the wrong Contractor's Price Book for TIGTA's review. The IRS provided the correct pricing book, and TIGTA determined the labor rates to be accurate. However, not properly reviewing invoices with the correct Contractor's Price Book increases the risk that the IRS may overpay for contractor billed hours.

When we interviewed personnel responsible for contract management, they indicated the customer (*i.e.*, the IRS business unit that submitted the request for IEP services) was responsible for validating the accuracy of the invoice. In some situations, the IRS was able to provide



e-mails from the contractor documenting that the IRS questioned certain billing inconsistencies and requested they be corrected. However, the IRS was unable to provide sufficient documentation supporting the occurrence of a detailed review of the invoice by the customer. Additionally, the IRS could not readily explain all billing inconsistencies and had to rely on the contractor to provide information.

In addition, we noticed there was an extended period of time between the end of the period of performance and invoice submission. For example, an invoice for work completed in March 2014 was not received by the IRS until July 2014. IEP management could not identify the cause of this delay.

While formal policies for receipt, inspection, and acceptance have been developed, the procedures have not been effectively or consistently followed. There also is a lack of coordination between contracting personnel, program management personnel, and the end user (customer) to effectively review invoices from the contractor. As a result of the lack of coordination and an ineffective review process, the IRS potentially paid for services it did not receive. This poor contract management allowed more than \$400,000 to be at risk of being wasted for the three invoices reviewed.

Recommendations

Recommendation 1: The Chief Technology Officer should ensure consistent coordination between information technology contracting personnel, program management office personnel, and the end user (customer) with respect to detailed review and reconciliation of invoices for services.

Management's Response: Since the IRS agreed to enter the corrective action into the Joint Audit Management Enterprise System and monitor it on a monthly basis until completion, we concluded that the IRS is in agreement with this recommendation. The IRS has followed and will continue to follow established procedures and processes to review and reconcile invoices.

Recommendation 2: The Chief Technology Officer should ensure that established processes and procedures are consistently followed to verify all charges invoiced prior to payment.

Management's Response: Since the IRS agreed to enter the corrective action into the Joint Audit Management Enterprise System and monitor it on a monthly basis until completion, we concluded that the IRS is in agreement with this recommendation. The IRS has followed and will continue to follow established procedures and processes to verify all charges invoiced prior to payment.

<u>Recommendation 3</u>: The Chief Technology Officer and the Chief, Agency-Wide Shared Services, should work with the contractor to resolve the potential billing errors identified and obtain a credit on future invoices, if warranted.



Management's Response: Since the IRS agreed to enter the corrective action into the Joint Audit Management Enterprise System and monitor it on a monthly basis until completion, we concluded that the IRS is in agreement with this recommendation. The IRS recognizes the significance of regularly reviewing and reconciling invoices. Information Technology and Agency-Wide Shared Services have thoroughly reviewed the identified invoices, accounted for all hours, and confirmed that all labor costs claimed by contractor employees were accurate. This analysis has been sent to TIGTA showing no need for the IRS to seek a credit.

Office of Audit Comment: TIGTA maintains its position outlined in the finding and the three recommendations. Although the IRS provided additional analysis of the three invoices, this analysis was not conducted until after TIGTA presented its findings regarding the three invoices. Therefore, TIGTA believes the IRS did not take the appropriate actions to ensure established processes and procedures were followed to review and verify questionable invoice items.

Business Requirements Were Not Sufficiently Gathered and Documented for the Integrated Enterprise Portal

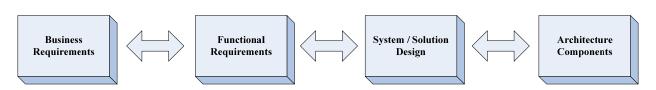
IRM 2.16.1, Enterprise Life Cycle (ELC) - ELC Guidance, establishes the directive for implementing and complying with the ELC requirements. This IRM applies to IRS managers, personnel, and executives who manage, directly support, or provide oversight to projects that effect business change. This IRM also applies to contractors who conduct projects on behalf of the IRS that effect business change. The ELC is a framework used by IRS projects to ensure consistency and compliance with Government and industry best practices. The ELC framework is the workflow that projects follow to move an information technology solution from concept to production while making sure that they are in compliance with IRS guidelines and are compatible with the overall goals of the IRS. The ELC is appropriate for use by all projects. Also, IRM 2.16.1.5.2.11, Business System Requirements Report, requires the development and documentation of a feasible, quantified, verifiable set of requirements that defines the business system or subsystem being developed or enhanced by the project. These requirements form the basis for the business system design, development, integration, and deployment. The Managed Service Path of the ELC includes the identification of requirements to provide the desired service functionality. These may include software packages, integrated software packages, shared services and/or infrastructure (operational) components (assets), e.g., servers, network centric, workstations, and web hosting.

The IRS did not completely follow its established ELC Managed Service Path to develop the IEP. System development typically includes the following steps: (1) Preliminary Analysis, (2) System Analysis (business requirements and functional requirements), (3) System Design, (4) Development, (5) Testing, (6) Deployment/Acceptance, and (7) Maintenance. For the IEP development, the IRS skipped step 1 and most of step 2. The IEP functional and nonfunctional



requirements were not developed from business requirements. Instead, functional and nonfunctional requirements were reverse engineered through working sessions between the contractor and the IRS and from existing system and application documents. Therefore, we could not trace the design and architecture of the IEP, including but not limited to hardware and software to the business requirements to the design and architecture components. Figure 4 provides an overview of the requirements traceability process flow.

Figure 4: System Development Life Cycle: Requirements Traceability



Source: TIGTA's analysis of the IRM 2.16.1, Part 2: Information Technology, Chapter 16: ELC, Section 1: ELC Guidance.

In addition, the IEP was developed under a managed service contract. Under the contract, the contractor was given full authority over the design and architecture of the IEP. This includes selection of hardware and software to ensure that the IEP is functional and meets the needs of the IRS.

We reviewed the Change Requests generated during the execution of the IEP contract and identified new requirements and changes to existing requirements for the IEP. For example, a purchase of additional system memory for the Help Desk function cost \$510,000. The Help Desk is not a new system or functional area for the IRS, and the requirements for the Help Desk should have been analyzed and documented prior to development of the IEP. Conducting a requirements analysis and documentation of the Help Desk could have identified the proper amount of memory needed to support the system. As a result of not analyzing the system and documenting its business and functional requirements, the IRS had to modify an existing functional requirement at an additional cost.

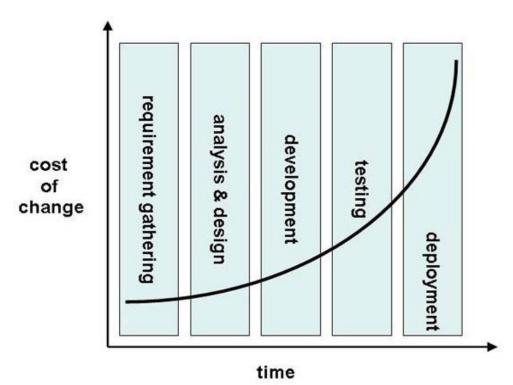
conducted the necessary work to gather, identify, and test business requirements, this condition may not have occurred.

In our review of the IEP, we can attest that the IEP is operational. However, we cannot attest to the completeness of the IEP because the IEP was not developed from business requirements.



In systems development, the traditional cost of change curve, presented in Figure 5, illustrates that the relative cost of addressing a changed requirement, either because it was missed or misunderstood, throughout the lifecycle increases as the project development progresses. The cost of making a change increases exponentially later in the development lifecycle because the documents within a serial process build on each other.





Source: *Improving Application Quality Using Test-Driven Development (TDD)* by Craig Murphy http://www.methodsandtools.com/archive/archive.php?id=20.

Because the IEP functional and nonfunctional requirements were not developed from business requirements, the requirements could not be traced through the system. The lack of requirements traceability could result in missed requirements, the system not functioning as intended, and/or costly repairs.

<u>Management Action</u>: Throughout the audit process, TIGTA requested the requirements information from program office personnel and management and were informed this information was not available. After TIGTA briefed the IRS on this issue, the IRS was able to provide additional documentation appearing to contain portal requirements. However, because the documentation was provided after fieldwork completion, we were not able to analyze the information to assess its completeness or its traceability through the development process.



Recommendation

Recommendation 4: The Chief Technology Officer should, in future systems development/modernization projects, ensure that business requirements are gathered, developed, and fully decomposed to develop functional and nonfunctional requirements. Business requirements should be traced to the functional and nonfunctional requirements, system design, and architectural components.

Management's Response: Since the IRS agreed to enter the corrective action into the Joint Audit Management Enterprise System and monitor it on a monthly basis until completion, we concluded that the IRS is in agreement with this recommendation. The IRS followed the established Managed Service Path in the ELC and provided documentation to demonstrate that IEP requirements for IEP implementation were properly captured. Future systems development/modernization projects will continue to use the published ELC procedures as the main tool for ensuring that business requirements are captured and traced appropriately.

Office of Audit Comment: The IRS did not provide sufficient evidence during the audit to support a determination that IEP requirements were adequately managed. Although the IRS provided documentation containing IEP requirements, the documentation was not provided to TIGTA until after the conclusion of the review. If the IEP requirements were properly captured, TIGTA believes this information should have been readily available upon the initial request or at least at some point during the review.



Appendix I

Detailed Objective, Scope, and Methodology

Our overall objective was to assess the effectiveness of the IRS's IEP. To accomplish our objective, we:

- I. Determined if the IRS adequately managed contractor services acquired for IRS IEP Operation and Maintenance.
 - A. Identified all Work Requests and Deliverables resulting from the Work Requests under Task Order 11 for Contract TIRNO-11-D-00041.
 - B. Obtained and reviewed documentation generated in the review and acceptance process for contractor deliverables under Task Order 11 for Contract TIRNO-11-D-00041.
 - C. Determined appropriateness of contractor billing when compared to expectations detailed in contract documentation.
 - D. Selected and reviewed a judgmental¹ sample of three (January, February, and March 2014) of the 16 invoices received from December 2012 to March 2014. These invoices were selected because those months would likely have more activity because the corresponding periods of performance fall during the filing season.
- II. Determined if the IEP solution architecture will align with the IRS Enterprise Architecture to achieve stated requirements and function as planned for the IEP release.
 - A. Obtained and reviewed the IRS Enterprise Architecture and IEP architecture and design documents.
 - B. Obtained and evaluated IEP standards and procedures, test, and development artifacts to determine whether the IEP system will achieve the stated requirements and functionality planned for the IEP release.
- III. Determined if the IRS exercises effective operational and capacity management oversight of the IEP contractor activities.
 - A. Identified Service Level Objectives developed by the IRS and the IEP contractor and used to measure the performance of the IEP.

¹ A judgmental sample is a nonprobability sample, the results of which cannot be used to project to the population.



- B. Evaluated the IRS process to compare Service Level Objectives with actual performance statistics/results to identify discrepancies and potential inefficiencies in system performance.
- C. Determined if the IRS PPMO has adequately prepared for potential increases in capacity needed for future systems/applications.

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: the IRS's IRM Sections 1.35.3 and 2.16.1 as well as the IRS's Procurement Office Policies and Procedures Memorandum 46.5. We evaluated these controls by interviewing management and reviewing IRS documentation supporting the effectiveness of the review of IRS IEP contractor invoices, capacity management, and development of business requirements.



Appendix II

Major Contributors to This Report

Alan R. Duncan, Assistant Inspector General for Audit (Security and Information Technology Services) Danny Verneuille, Director Myron Gulley, Audit Manager Ashley Weaver, Lead Auditor Charles Ekunwe, Senior Auditor Tina Wong, Senior Auditor Chinita Coates, Auditor Sarah Shelton, Auditor Kevin Liu, Information Technology Specialist Manager Hung Dam, Information Technology Specialist



Appendix III

Report Distribution List

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Appendix IV

Outcome Measure

This appendix presents detailed information on the measurable impact that our recommended corrective actions will have on tax administration. This benefit will be incorporated into our Semiannual Report to Congress.

Type and Value of Outcome Measure:

• Cost Savings: Questioned Costs – Potential; \$405,679 in excess contractor employee labor costs (see page 4).

Methodology Used to Measure the Reported Benefit:

TIGTA reviewed contractor invoices from January, February, and March 2014 to identify contractor employees claiming more than 240 hours a month. The hours in excess of 240 were multiplied by the labor rate per hour and added to determine potential excess labor costs of \$405,679.



Appendix V

Management's Response to the Draft Report



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

APR 0 9 20%

MEMORANDUM FOR DEPUTY INSPECTOR GENERAL FOR AUDIT

FROM:

Terence V. Milholland Letter V. Millelle Chief Technology Officer

SUBJECT:

Draft Audit Report – The Integrated Enterprise Portal Is Operating As Designed; However, Increased Contract Oversight Is Necessary (Audit #201420022) (e-trak #2015-65906)

Thank you for the opportunity to review the audit report on the Integrated Enterprise Portal (IEP) and to discuss earlier versions of the report with the audit team.

The IEP provides a scalable and reliable web infrastructure for IRS's modernized e-file services for tax preparer agencies and agents to submit over 750 different IRS forms, and for public access to more than 110,000 forms, publications, news items, rules and articles on IRS.gov. The IEP has provided 100% availability for public access and use since 2012—a vast improvement in performance over the legacy Registered and Public User portals.

We are pleased the report acknowledges the IEP capacity management governance and supporting processes, but we disagree with the findings of your review of three IEP invoices that identified potential billing errors for contractor services representing a potential savings of \$405,679 in contractor employee labor costs. We provided your audit team a detailed analysis of the three invoices which the report also acknowledges. Our analysis demonstrated labor costs claimed by contractor employees were accurate. However, as noted in the report, the audit results do not account for our analysis. We believe once you consider our analysis you will agree that there are no potential labor cost savings.

We strongly emphasize that the IRS did not pay for services that were not received and can confidently state that the Service was not overcharged for labor costs on any of the invoices analyzed. We regularly perform detailed reviews of invoices and seek clarification from the contractor to explain any inconsistencies.

While the recommendations are in line with our existing commitment to monitor and improve our practices, we believe the evidence of the audit does not substantiate the conclusions reached in the subsection entitled "Business Requirements Were Not Sufficiently Gathered and Documented for the Integrated Enterprise Portal". During



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discussions of earlier versions of the audit report, we learned about your audit team's specific concerns regarding adherence to the Enterprise Life Cycle (ELC) during IEP implementation. We then provided additional information that demonstrated the ELC managed service path was completely followed. However, as noted in the report, the audit results do not account for the additional information. We believe once you consider the additional information you will agree that we complied with established ELC requirements.

Our complete corrective action plan that addresses each recommendation is attached. We value your continued support and the assistance your organization provides. If you have any questions, please contact me at (240) 613-9373 or a member of your staff may contact Perry Robinett, Senior Manager, Program Oversight at (240) 613-3780.

Attachment



Attachment

Draft Audit Report – The Integrated Enterprise Portal Is Operating As Designed; However, Increased Contract Oversight Is Necessary (Audit #201420022) (e-trak #2015-65906)

<u>RECOMMENDATION #1</u>: The Chief Technology Officer should ensure consistent coordination between information technology contracting personnel, program management office personnel, and the end user (customer) with respect to detailed review and reconciliation of invoices for services.

<u>CORRECTIVE ACTION #1</u>: The IRS has followed and will continue to follow established procedures and processes to review and reconcile invoices.

IMPLEMENTATION DATE: Completed February 6, 2015

<u>RESPONSIBLE OFFICIAL</u>: Associate Chief Information Officer, Enterprise Operations

CORRECTIVE ACTION MONITORING PLAN: The IRS will enter accepted Corrective Actions into the Joint Audit Management Enterprise System (JAMES) and monitor them on a monthly basis until completion.

<u>RECOMMENDATION #2</u>: The Chief Technology Officer should ensure that established processes and procedures are consistently followed to verify all charges invoiced prior to payment.

<u>CORRECTIVE ACTION #2</u>: The IRS has followed and will continue to follow established procedures and processes to verify all charges invoiced prior to payment.

IMPLEMENTATION DATE: Completed February 6, 2015

<u>RESPONSIBLE OFFICIAL</u>: Associate Chief Information Officer, Enterprise Operations

<u>CORRECTIVE ACTION MONITORING PLAN</u>: The IRS will enter accepted Corrective Actions into the Joint Audit Management Enterprise System (JAMES) and monitor them on a monthly basis until completion.



Attachment

Draft Audit Report – The Integrated Enterprise Portal Is Operating As Designed; However, Increased Contract Oversight Is Necessary (Audit #201420022) (e-trak #2015-65906)

RECOMMENDATION #3: The Chief Technology Officer and the Chief, Agency-Wide Shared Services, should work with the contractor to resolve the potential billing errors identified and obtain a credit on future invoices, if warranted.

CORRECTIVE ACTION #3: The IRS recognizes the significance of regularly reviewing and reconciling invoices. IT and AWSS have thoroughly reviewed the identified invoices, accounted for all hours and confirmed that all labor costs claimed by contractor employees were accurate. This analysis has been sent to TIGTA showing no need for the IRS to seek a credit.

IMPLEMENTATION DATE: Completed February 6, 2015

<u>RESPONSIBLE OFFICIAL</u>: Associate Chief Information Officer, Enterprise Operations

CORRECTIVE ACTION MONITORING PLAN: The IRS will enter accepted Corrective Actions into the Joint Audit Management Enterprise System (JAMES) and monitor them on a monthly basis until completion.

RECOMMENDATION #4: The Chief Technology Officer should, in future systems development/modernization projects, ensure that business requirements are gathered, developed, and fully decomposed to develop functional and non-functional requirements. Business requirements should be traced to the functional and non-functional requirements, system design, and architectural components.

CORRECTIVE ACTION #4: The IRS followed the established Managed Service Path in the Enterprise Life Cycle (ELC) and provided documentation to demonstrate that IEP requirements for IEP implementation were properly captured. Future systems development/modernization projects will continue to use the published ELC procedures as the main tool for ensuring that business requirements are captured and traced appropriately.

IMPLEMENTATION DATE: Completed February 6, 2015

<u>**RESPONSIBLE OFFICIAL</u>**: Associate Chief Information Officer, Enterprise Operations</u>

CORRECTIVE ACTION MONITORING PLAN: The IRS will enter accepted Corrective Actions into the Joint Audit Management Enterprise System (JAMES) and monitor them on a monthly basis until completion.