

**End User Equipment and Services
Enterprise Service Desk Efficiency
and Effectiveness Can Be Improved**

May 2003

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WASHINGTON, D.C. 20220

INSPECTOR GENERAL
for TAX
ADMINISTRATION

May 23, 2003

MEMORANDUM FOR ACTING DEPUTY COMMISSIONER FOR MODERNIZATION &
CHIEF INFORMATION OFFICER

Gordon C. Milbourn III

FROM: Gordon C. Milbourn III
Acting Deputy Inspector General for Audit

SUBJECT: Final Audit Report - End User Equipment and Services
Enterprise Service Desk Efficiency and Effectiveness Can Be
Improved (Audit # 200220007)

This report presents the results of our review of the Enterprise Service Desk (ESD). The overall objective of this review was to evaluate the readiness of the End User Equipment and Services (EUES) organization to provide an enterprise-wide help desk function. The EUES organization serves as a single point of accountability and ownership for all end-user support activities including help desk problem resolution. The ESD consolidates the 18 help desks into 6 physical locations under an Eastern and a Western Service Desk manager and will result in standardized service support processes, systems, and employee grade levels.¹

In July 2002, the Internal Revenue Service (IRS) announced that the EUES organization was undergoing major changes as part of the Modernization, Information Technology, and Security (MITS) Services reorganization to be highly customer-service focused, more efficient, and more competitive. The General Accounting Office (GAO) reported in November 2002 that a number of key practices have been found at the center of successful mergers, acquisitions, and transformations.²

In summary, when the ESD was implemented, several of these key practices were incorporated in the transformation process. The transformation also incorporated many

¹ A grade level is the numerical designation in the Office of Personnel Management's General Schedule (GS) (e.g., GS-1 through GS-15) that identifies the range of difficulty and responsibility, and level of qualification requirements of positions.

² *Mergers and Transformation: Lessons Learned for a Department of Homeland Security and Other Federal Agencies* (GAO-03-293SP, dated November 2002).

of the industry best practices identified in an independent contractor's study issued in July 2000.³ Overall, the IRS has done a good job in planning the transformation of its help desk operations and incorporating industry best practices; however, improvements are still needed in the ESD program.

Management established the ESD primary assistor position at a higher-grade level⁴ in order to staff the telephones with Level 1⁵ assistors that possess the necessary skills and knowledge to increase first contact resolutions. However, our analysis of the Fiscal Year (FY) 2002 help desk call volumes determined that approximately 32 percent of all calls are customer requests for password related activities, which require skills that are significantly less than the requirements for the ESD assistor grade level. In addition, calls to the ESD are not screened and routed to the assistor with the skills to most efficiently address the call.

Also, due to the establishment of the ESD assistor position at the higher-grade level, management was unable to fill many of the vacant positions and was required to supplement the ESD staffing with contractors to meet the December 29, 2002, implementation date. The authorized staffing for the ESD includes 120 staff years for the service desk assistor position. As of January 2003, 45 percent (55 of 120) of the ESD assistor positions were staffed by contractors. Since the contractors and the ESD assistors perform the same duties, the skills of both are significantly underutilized performing simple, repetitive activities.

The EUES organization has also not developed a call reduction strategy. Although the MITS Services organization implemented new Web Ticketing,⁶ Password Management, and Get Answers self-service tools, management has not required that customers use them. In addition, the self-service password management tool has been disabled because of security concerns. Based on our analysis of the FY 2002 call volumes, the potential cost savings to the IRS resulting from the use of the on-line self-service tool for password reset and unlock rather than an ESD assistor is approximately \$23.6 million over 5 years.

While the IRS will use four of the MITS Services Balanced Measures⁷ to measure the performance of the ESD, additional measures are needed to provide management with sufficient information to assess the effectiveness and efficiency of the ESD program and the ESD assistor.

³ *Internal Revenue Service Enterprise Help Desk Managed Service Provider Viability Study* (MITRE Corporation, TIRNO-99-00005, dated July 2000).

⁴ For the purposes of this report, the lower-grade positions range from GS-1 through GS-9 and the higher-grade positions range from GS-10 through GS-15.

⁵ Industry best practices define Level 1 support as the initial contact, which includes identifying the business problem, logging the problem/creating a trouble ticket, and initiating a required action (resolution or escalation to Level 2).

⁶ Web Ticketing allows customers to use the web to report a computer, printer, FAX, or any other information technology-related problem.

⁷ Balanced Measures report the MITS Services business results and are used in the strategic assessment and budget planning process.

We recommended that the Acting Deputy Commissioner for Modernization & Chief Information Officer review the ESD staffing needs to determine whether some of the assistor positions should be a lower-grade to more efficiently handle simple, repetitive calls; establish a process to ensure that calls to the ESD are screened and routed for efficient resolution; ensure the self-service desk tools are available to end users and require their use; develop a call reduction strategy; ensure additional measures are established for the ESD program and assistors; and ensure efforts are continued to reach an agreement with the National Treasury Employees Union to allow the monitoring of ESD assistor calls.

Management's Response: Management's response was due on May 21, 2003. As of May 22, 2003, management had not responded to the draft report.

Copies of this report are also being sent to the IRS managers who are affected by the report recommendations. Please contact me at (202) 622-6510 if you have questions or Margaret E. Begg, Acting Assistant Inspector General for Audit (Information Systems Programs), at (202) 622-5959.

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End User Equipment and Services Enterprise Service Desk Efficiency and Effectiveness Can Be Improved

Background

One of the Internal Revenue Service's (IRS) major strategies contained in the *IRS Strategic Plan (Fiscal Years (FY) 2000-2005)* is to provide high-quality, efficient, and responsive information services. To accomplish this strategy, the IRS established the Modernization, Information Technology, and Security (MITS) Services organization, which includes the offices of Business Systems Modernization, Information Technology Services (ITS), and Security Services.

Over a period of 18 months, the MITS Services organization analyzed the organization, services, and needs of customers to develop a reorganization strategy to provide superior customer service and increase employee satisfaction. A key component of the reorganization is the establishment of the End User Equipment and Services (EUES) organization within the ITS, to serve as a single point of accountability and ownership for all end-user support activities including help desk problem resolution. The FY 2003 budget for the EUES organization is \$370 million with 3,171 employees.

Although the new EUES organization began operations on October 20, 2002, the single enterprise-wide service desk was not implemented until December 29, 2002. The Enterprise Service Desk (ESD) consolidates the 18 help desks into 6 physical locations under an Eastern and a Western Service Desk manager. The objective of the consolidated service desk concept is to improve the quality, consistency, and efficiency of service to all IRS customers. The ESD will also result in standardized service support processes, systems, and employee grade levels.¹ This transition to the ESD will occur in multiple phases and should be completed by October 2004.

¹ A grade level is the numerical designation in the Office of Personnel Management's General Schedule (GS) (e.g., GS-1 through GS-15) that identifies the range of difficulty and responsibility, and level of qualification requirements of positions. For the purposes of this report, the lower-grade positions range from GS-1 through GS-9 and the higher-grade positions range from GS-10 through GS-15.

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Prior to the consolidation of the IRS' help desk operations, the help desks at the IRS campuses² were staffed with lower-grade Computer Assistants, while the help desks in the area offices were staffed primarily with higher-grade Computer Specialists. With the transition to the ESD, the IRS established a standard service desk assistant position at the higher-grade levels. The GS-12 primary assistants will provide Level 1³ response and support for all service desk trouble calls. The GS-11 assistants work customer callbacks, web tickets, and requests for services. In addition, they will provide some back-up support for Level 1 service desk trouble calls.

The EUES organization also established a new web site to provide direct customer access to several new self-service desk tools focused on improving the work environment by allowing employees to order products and services themselves. These tools include:

- Web Ticketing - Allows customers to use the web to report an ITS-related problem, request ITS services or products, and track the status of a request. The IRS characterizes these services as “fix it, get it, move it, or check ticket status.”
- Password Management - Allows customers to build a personal profile with information specific to them for use in password-reset requests. Using their personal profile, customers are provided around-the-clock access to reset their operating system password on-line or by telephone.
- Get Answers - Provides a direct link to the MITS Services Products and Services Catalog. In the future, customers will be provided the capability of

² The IRS' 10 campuses process paper and electronic submissions, correct errors, and forward data to the computing centers for analysis and posting to taxpayer accounts.

³ Industry best practices define Level 1 support as the initial contact, which includes identifying the business problem, logging the problem/creating a trouble ticket, and initiating a required action (resolution or escalation to Level 2).

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searching a knowledge base to get answers to ITS questions in simple easy-to-understand language.

Audit work was conducted at the EUES Headquarters in New Carrollton, Maryland, and the ITS Customer Support Help Desk in Atlanta, Georgia, from August 2002 to March 2003. The audit was conducted in accordance with *Government Auditing Standards*. Detailed information on our audit objective, scope, and methodology is presented in Appendix I. Major contributors to the report are listed in Appendix II.

Management Implemented Several Key Practices Necessary for a Successful Reorganization

The Office of Management and Budget (OMB) Circular A-130, *Management of Federal Information Resources*, states that agencies should seek opportunities to improve the effectiveness and efficiency of government programs through work process redesign and the judicious application of information technology (IT). In addition, the General Accounting Office (GAO) reported in November 2002 that a number of key practices have been found at the center of successful mergers, acquisitions, and transformations.⁴

In July 2002, the IRS announced that the EUES organization was undergoing major changes as part of the MITS Services reorganization to be highly customer-service focused, more efficient, and more competitive. On December 29, 2002, the ESD was implemented and several of the key practices reported by the GAO were incorporated in the transformation process. These practices included:

- Ensuring that top leadership for the MITS Services organization drives the transformation.
- Establishing an implementation team to manage the transformation process.
- Setting key implementation goals and a timeline for tracking progress from planning to rollout.

⁴ *Mergers and Transformation: Lessons Learned for a Department of Homeland Security and Other Federal Agencies* (GAO-03-293SP, dated November 2002).

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- Establishing an extensive communication strategy to create shared expectations, report progress on the reorganization, and market its services.

The transformation also incorporated many of the industry best practices identified in an independent contractor's study issued in July 2000.⁵ For example, the ESD provides a single-point consolidated system, which will provide consistency in service support processes, tools, and systems. In addition, management defined the ESD mission, objectives, and key roles and responsibilities for accomplishing its mission.

Overall, the IRS has done a good job in planning the transformation of its help desk operations and incorporating industry best practices. However, we identified several areas for improvement in the ESD.

The Enterprise Service Desk Staffing Structure Inefficiently Uses Resources

The OMB Circular A-123, *Management Accountability and Control*, states that management is responsible for ensuring that programs achieve their intended results and that the use of resources is consistent with the agency's mission. In the *Standards for Internal Control in the Federal Government*, the GAO states that effective management of an organization's human capital is essential to achieving results and an important internal control. Only when the right personnel for the job are on board and are provided the right training, tools, structure, incentives, and responsibilities is operational success possible.

Industry best practices provide no specific guidance for determining the grade level of help desk assistants. They recognize that business applications and user questions are becoming more sophisticated; however, help desks are still spending an inordinate amount of time fielding password and printing problems, which are simple, repetitive tasks. In fact, an InformationWeek article, *Help Desks Think Bigger*

⁵ *Internal Revenue Service Enterprise Help Desk Managed Service Provider Viability Study* (MITRE Corporation – TIRNO-99-00005, dated July 2000).

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(dated October 2001),⁶ estimates that only 45 percent of the calls to help desks are devoted to complex issues.

Therefore, industry best practices for help desk operations recommend implementing self-service tools to handle the simpler calls and establishing multiple support levels for help desk operations. The support levels allow the calls to be screened and routed quickly to the assistor with the skills to most efficiently address the call.

Management established the primary assistor position at a higher-grade level to staff the telephones with Level 1 assistors that possess the necessary skills and knowledge to increase first-contact resolutions. The ESD assistors are expected to have knowledge of and skill in applying methods and practices for troubleshooting, recovering, adjusting, modifying, and improving IT systems and files. The assistors should also be capable of providing support in a manner that minimizes interruptions in customers' abilities to carry out critical business activities. This includes using new customer support technologies such as the Tivoli Remote Control⁷ tool to troubleshoot and resolve the most complex customer problems at first contact.

The ESD Transition and Stand Up Plan⁸ required that the ESD assistor positions be staffed at the targeted higher-grade level prior to the implementation of the ESD. However, our analysis of the FY 2002 help desk call volumes determined that approximately 32 percent of all calls are customer requests for password related activities, which require skills that are significantly less than the requirements for the ESD assistor grade level. In addition, the ESD does not provide for the screening and routing of calls to the assistor with the skills to efficiently resolve the call. As a result, the ESD assistor resources are currently

⁶ InformationWeek is a weekly print magazine that is read by Chief Information Officers (CIO), IT and business managers, and IT professionals. It provides in-depth analysis, news, research, and perspectives on the latest business technology trends.

⁷ The Tivoli Remote Control tool allows technicians to take control of a user's workstation remotely to monitor and execute diagnostic troubleshooting and repair commands.

⁸ *IRS Enterprise Service Desk Transition and Stand Up Plan* (Version 2) dated September 6, 2002.

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significantly underutilized, resolving lower-graded types of problems.

Also, establishing the ESD assistor position at the higher-grade level resulted in several positions not being filled because the help desk assistors from the prior organization structure could not qualify for the new positions. Therefore, management was required to supplement the ESD staffing with contractors to meet the December 29, 2002, implementation date.

The authorized staffing for the ESD includes 120 staff years for the service desk assistor position. As of January 2003, 118 of these 120 staff years had been filled, which includes 55 (45 percent) contractors, 47 employees who transferred from the old service desks to the new ESD, and 16 employees who did not transition into the new ESD organization but were assigned to the ESD to perform meaningful work until they could be placed in a permanent position. Since the contractors perform the same duties as the ESD assistors, their skills are also significantly underutilized, performing simple, repetitive activities.

The inconsistency between the difficulty of the help desk work and the assistor skill level is caused by the establishment of the ESD assistor positions at the higher-grade levels, the calls not being screened and routed to the assistor with the skills to efficiently resolve the call, and the requirement that the assistor positions be filled at the target higher-grade level while the ESD tools, capabilities, and services are being incrementally implemented. Until the service desk calls are screened and routed to the appropriate assistor and the self-service desk tools are fully implemented and effectively used by employees, the ESD assistor skills will continue to be underutilized, devoting a significant amount of time performing simple, repetitive tasks that should be automated and/or performed by lower-graded technicians.

Recommendations

The Acting Deputy Commissioner for Modernization & CIO should:

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1. Review the ESD staffing needs to determine whether some of the assistor positions should be a lower-grade to more efficiently handle simple, repetitive calls.

Management's Response: Management's response was due on May 21, 2003. As of May 22, 2003, management had not responded to the draft report.

2. Establish a process to ensure that calls to the ESD are screened and routed to the assistor with the skills to most efficiently resolve the problem.

Potential Savings From the Self-Service Desk Tools and a Call Reduction Strategy Are Not Being Maximized

The OMB Circular A-123 states that managers are responsible for increasing productivity and controlling costs of agency operations. The Government Performance and Results Act of 1993 (GPRA)⁹ was enacted by the Congress to improve the efficiency and effectiveness of federal programs by establishing a system to set goals for program performance and to measure results.

Industry best practices suggest that centralized help desk operations can significantly reduce support costs by investing in smart technologies. These include software that allows the assistor to take over a user's workstation remotely or self-help technologies like password reset. Calls resolved from the help desk via remote technology, rather than dispatching a technician to the user's desk, can reduce per-call cost by as much as 80 percent.

End user self-service capabilities are major components of the EUES ESD implementation. On November 19, 2002, the MITS Services organization implemented the new Web Ticketing, Password Management, and Get Answers self-service desk tools. However, the EUES organization has not developed a call reduction strategy or taken actions to aggressively reduce call volumes. Industry best practices state that in order to have a successful help desk operation, an organization must develop a call reduction strategy. The most common approach to call reduction requires a monthly

⁹ Government Performance and Results Act of 1993 (GPRA), Pub. L. No. 103-62, 107 Stat. 285 (codified as amended in scattered sections of 5 U.S.C., 31 U.S.C., and 39 U.S.C.).

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root-cause analysis, which categorizes calls by type and technology and identifies the common causes for the calls.

Although the EUES organization projects that the self-service desk tools, if appropriately used, will reduce call volumes by at least 20 percent, management has not required that customers use them. In addition, calls for password reset and unlock account for approximately 32 percent of the service desk call volume. However, the self-service password management tool is not available for end users. It was disabled 8 days after implementation because of security concerns. Currently, management is assessing other self-service password management tools for implementation.

In FY 2002, the IRS help desk operations nationwide received a total of 614,172 calls. Of the total calls, 195,332 (32 percent) were requests for passwords to be reset or unlocked. According to industry standards, the average cost for resolving these types of help desk calls by an assistor is \$25 per call, while the cost for using on-line self-service tools is only approximately \$2.50 per call. Based on the IRS' FY 2003 budget for the ESD, the average cost to the IRS for resolving requests for password reset and unlock by an assistor is \$29 per call. Table 1 presents the estimated cost to the IRS for resolving password reset and unlock calls.

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Table 1 – Password Reset and Unlock Call Cost Analysis

Problem Ticket Resolution Method	Number of Calls Received in FY 2002¹⁰	Cost Per Call	Total
Enterprise Service Desk Assistor	175,799	\$29.31 ¹¹	\$5,152,669
On-line Self-Service Tool	175,799	\$2.50	\$439,497
Potential savings from using self-service tool			\$4,713,172

Source: The IRS' Enterprise Service Desk and IHS Support Solutions.¹²

The potential cost savings to the IRS resulting from the use of the on-line self-service tool for password reset and unlock rather than an ESD assistor is approximately \$23.6 million over 5 years (see Appendix IV). The efficiency gains from the self-service desk tools are not being maximized because EUES management wanted to provide users with as many service options as possible without requiring their usage.

In addition, EUES management advised that they have established a quality control coordinator to review the quality of the call tickets and problem tickets, first-call resolution, and the balanced measures¹³ to improve the effectiveness and efficiency of the operation. However, the coordinator's responsibilities do not include identifying call reduction opportunities by analyzing calls to determine the root cause. Until a password management self-service tool is made available to end users and its usage is required and

¹⁰ In FY 2002, the help desk received 195,332 calls for password reset and unlock. This number of calls is reduced by 10 percent (19,533) because we are assuming some password-reset calls will continue to be received by the help desk after the implementation of the self-service tool (195,332 calls – 19,533 calls = 175,799 calls).

¹¹ The cost per call amount was calculated by taking the FY 2003 ESD budget and dividing it by the total number of help desk telephone calls received (\$18 million / 614,172 calls = \$29.31 per call).

¹² The IHS Support Solutions (formerly IHS Helpdesk Service) is an industry leader focusing on the development and delivery of the support industry's best practices and technologies.

¹³ Balanced Measures report the MITS Services business results and are used in the strategic assessment and budget planning process.

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the root cause of calls is analyzed, the ESD will not achieve optimum efficiency.

Recommendations

The Acting Deputy Commissioner for Modernization & CIO should:

3. Ensure that the self-service desk tools are available to end users and require the use of these tools.
4. Develop a call reduction strategy to reduce the number of calls received at the service desk. The strategy should include a periodic (e.g., monthly) root cause analysis of the calls.

Additional Performance Measures Would Improve Assessing the Efficiency and Effectiveness of the Enterprise Service Desk

The OMB Circular A-123 and GPRA provide guidance on establishing, managing, assessing, and reporting on management controls and performance measurement goals. Managers at all activity levels should review performance reports, measure results against targets, and analyze trends.

On March 22, 2000, the IRS Commissioner and CIO formally approved the performance measures for the MITS Services organization to analyze and improve operations and service delivery. On August 14, 2001, the IRS implemented the Performance Measures for ITS to deliver a web-based means for management officials to create operational performance reports by time period, location, and organization. Currently, four of the MITS Services Balanced Measures are used to measure the performance of the ESD. These include:

- 1) Percentage resolution at first contact.
- 2) Percent on-time ticket resolution.
- 3) Ticket activity – open and closed.
- 4) Mean call queue time.¹⁴

The established performance measures are consistent with those identified in industry best practices; however, the IRS should consider additional measures to provide management

¹⁴ Mean call queue time allows management to monitor the length of time customers are holding on the telephone for an available assistor.

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with sufficient information to assess the effectiveness and efficiency of the ESD program. For example, the CIO Magazine¹⁵ article, *Good Help – Meta View* (dated May 1998), states that at a minimum, help desk performance goals should also include cost per call, call abandonment rate, and call handle time.

In addition, studies published by an industry leader in comprehensive training programs and educational resources for call center management,¹⁶ report that over 90 percent of call centers conduct live monitoring of calls on a continuous basis to evaluate individual performance and identify training and coaching needs. These forms of monitoring include real-time remote monitoring, call taping, side-by-side monitoring, and mystery shopper calls (where a supervisor poses as a customer to evaluate performance).

According to industry best practices, individual assistors must also be measured against a set of performance goals such as calls per month, customer satisfaction, and first-call resolution rate. Currently, the EUES organization has not established any measures to assess employee productivity because management did not negotiate an agreement with the National Treasury Employees Union (NTEU) to allow the ESD assistors to be evaluated based on productivity. IRS management is working on an agreement with the NTEU to allow monitoring of ESD telephone calls to evaluate the quality and efficiency of the assistor responses.

Without clearly established performance measures and indicators for monitoring and assessing the efficiency and effectiveness of the ESD program activities and individual assistor performance, management may not have the necessary data to ensure that intended business results are achieved and accurately reported. In addition, valuable opportunities for optimization of ESD resources may be missed.

¹⁵ The CIO Magazine is an award winning publication, serving the needs of CIOs and other senior IT experts since 1987.

¹⁶ Incoming Calls Management Institute's, *Monitoring Study II Final Report* (dated November 2001) and *Monitoring Study Final Report* (dated September 1999).

Recommendations

The Acting Deputy Commissioner for Modernization & CIO should ensure that:

5. Additional measures (e.g., cost per call and call abandonment rate) are established to measure the effectiveness and efficiency of the ESD program.
6. Performance measures for ESD assistors (e.g., call handle time) are established and monitored to ensure the quality and efficiency of assistor performance.
7. Efforts are continued to reach an agreement with the NTEU to allow the monitoring of ESD assistor calls.

Detailed Objective, Scope, and Methodology

The overall objective of this audit was to evaluate the readiness of the End User Equipment and Services (EUES) organization to provide an enterprise-wide help desk function. To accomplish this objective, we:

- I. Determined the resources that have been allocated to the Enterprise Service Desk (ESD) for Fiscal Year (FY) 2003 by identifying budgeted staff years, labor costs, and non-labor expenditures, including the costs for contractor support. Reviewed the organization charts for authorized staffing levels.
- II. Identified the mission and objectives for the ESD by reviewing the Modernization, Information Technology, and Security (MITS) Services Strategy and Program Plan for FYs 2003-2004, and the mission statements and Master Service Level Agreement¹ for the EUES organization.
- III. Evaluated the performance measures program established for the ESD by interviewing EUES management and reviewing the MITS Services Business Performance Review. Also compared the ESD performance measures to those identified by industry best practices.
- IV. Assessed the methodology used in determining the number of service desks sites and geographic locations for the ESD by interviewing management and reviewing studies or analyses supporting the consolidated service desk environment. Also reviewed best practices for determining the appropriate operating environment for service desk support.
- V. Interviewed management and reviewed documentation to assess the methodology used in determining the number of service desk assistors and their associated grade, including analyses to identify the required skill level and efforts to determine the type of problem and level of difficulty of calls. Reviewed industry best practices for determining the required number of service desk assistors and their grade levels.
- VI. Evaluated management's efforts to ensure a successful transformation to a single enterprise-wide service desk by determining if management established an implementation team to manage the transformation, established a timeline for key implementation goals, and implemented a communication strategy to report progress. Reviewed the process for staffing the service desk and addressing impacted employees.

¹ The Master Service Level Agreement is a comprehensive agreement between the MITS Services organization and the IRS' business operating divisions and functions, which defines the information technology services and service levels to be provided by the MITS Services organization to these other IRS components.

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- VII. Evaluated management's efforts to improve the effectiveness and efficiency of the ESD assistor by interviewing management to identify the measures for assessing employee productivity, quality assurance process for evaluating assistor responses, independent testing to validate reported results, and tools available to assistors. Assessed efforts to reduce call volumes including development of a call reduction strategy, implementation of the self-service desk tools and the associated usage and costs of calls, and utilization of the telephone script. Reviewed industry best practices for assessing performance of service desk assistors.

Major Contributors to This Report

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Appendix IV

Outcome Measures

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

Type and Value of Outcome Measure:

- Inefficient Use of Resources – Potential; \$23.6 million (see page 7).

Methodology Used to Measure the Reported Benefit:

In Fiscal Year (FY) 2002, the Internal Revenue Service (IRS) help desk operations nationwide received 195,332 calls from employees requesting password reset and unlock activities. Based on the IRS' FY 2003 budget for the Enterprise Service Desk (ESD), the average cost to the IRS for resolving requests for password reset and unlock by an assistor is \$29 per call.¹ According to industry standards, the cost for using on-line self-service tools is approximately \$2.50 per call.

Assuming that some password-reset calls will continue to be received by the service desk after the implementation of the self-service tools, we reduced the total number of calls (195,332) by 10 percent (19,533) for a total of 175,799 calls. The potential cost savings to the IRS resulting from the use of the on-line self-service tool for password reset and unlock rather than an ESD assistor is approximately \$4.7 million annually and \$23.6 million over 5 years. The following is a computation of the potential cost savings:

Problem Ticket Resolution Method	Number of Calls Received in FY 2002	Cost Per Call	Total
Enterprise Service Desk Assistor	175,799	\$29.31	\$5,152,669
On-line Self-Service Tool	175,799	\$2.50	\$439,497
Potential savings from using self- service tool			\$4,713,172
Potential savings over 5 years			\$23,565,860

¹ The cost per call amount was calculated by taking the FY 2003 ESD budget and dividing it by the total number of help desk telephone calls received (\$18 million / 614,172 calls = \$29.31 per call).