

**Management Advisory Report: Most Taxpayer
Communication Enhancements Planned for
2002 Will Be Delivered, Although Some Are
Later Than Originally Expected**

July 2002

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DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

INSPECTOR GENERAL
for TAX
ADMINISTRATION

July 2, 2002

MEMORANDUM FOR DEPUTY COMMISSIONER FOR MODERNIZATION &
CHIEF INFORMATION OFFICER

Scott E. Wilson

FROM: (for) Pamela J. Gardiner
Deputy Inspector General for Audit

SUBJECT: Final Management Advisory Report – Most Taxpayer
Communication Enhancements Planned for 2002 Will Be
Delivered, Although Some Are Later Than Originally Expected
(Audit # 200220012)

This report presents the results of our review of the Enhanced Call Routing (ECR) project and the Internet Refund Fact of Filing (IRFOF) project. This audit determined whether the ECR and IRFOF projects would deliver planned customer service enhancements for 2002.

The Internal Revenue Service (IRS) planned to deploy two projects for the 2002 tax Filing Season that would enhance communications with taxpayers. The ECR project will identify taxpayer issues early in the telephone call and will route the taxpayer to the appropriate IRS assistor or automated response based on the taxpayer's issue. Taxpayer calls routed to automated responses, such as refund inquiries, will allow IRS employees to focus on more difficult issues or to do other work. The IRFOF project will allow taxpayers to access tax return filing and refund information via a secure Internet connection. Together, these projects should significantly improve communications with taxpayers.

In summary, we found that the IRS successfully deployed the ECR capabilities in January 2002. The majority of the planned functionality was available to taxpayers throughout the 2002 Filing Season. The IRFOF capabilities will not be available to the majority of taxpayers seeking refund information in 2002. The PRIME contractor and the IRS' Business Systems Modernization Office (BSMO) had hoped to have IRFOF deployed by the end of March 2002, but delays in testing security features and other issues delayed the deployment until May 2002. However, deployment later in the year

allows the PRIME contractor and BSMO time to test the application in a live environment before submitting it to the demands of the 2003 Filing Season.

We did not provide recommendations in this report, since the corrective actions needed to address the issues identified have been recommended in previous reports.

Management's Response

Because we did not make any recommendations in this report, a formal response was not required. However, BSMO management requested an extension to respond to our draft report from June 17, 2002, to June 24, 2002. As of July 1, 2002, 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. Please contact me at (202) 622-6510 if you have questions or Scott E. Wilson, Assistant Inspector General for Audit (Information Systems Programs), at (202) 622-8510.

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Background

The Internal Revenue Service (IRS) submitted its first spending plan for Business Systems Modernization (BSM) projects to the Congress in May 1999. In this plan, the IRS included expected capabilities that the Customer Communications (CC) project would provide for the 2001 Filing Season. The IRS expected the CC project to deliver: 1) centralized call management, systems management, administrative, and management information consolidation and reporting capabilities; and 2) telephone and Internet automated self-service applications.

The IRS significantly modified the scope and schedule of the original CC project since its initial design and development. In March 2000, the IRS acknowledged that it could not provide taxpayers all of the 2001 Filing Season enhancements and benefits that it originally proposed in 1999. It postponed the telephone and Internet self-service applications until 2002, and rescheduled deploying the remaining capabilities for the latter part of the 2001 Filing Season.

The IRS planned for the CC 2002 project to automatically route taxpayer calls, based on the nature of the call and account information, to an IRS employee knowledgeable in handling the taxpayer's question. This capability is known as Data Directed Routing (DDR). The CC 2002 project was also expected to provide information on the receipt of tax returns (known as fact of filing) and refund status to taxpayers via the Internet. This capability is known as Internet Refund Fact of Filing (IRFOF).

In March 2001, the Treasury Inspector General for Tax Administration (TIGTA) suggested to the Chief Information Officer that lessons learned in earlier projects related to project management and schedule realism be applied to the CC 2002 project to help attain the goal of implementing repeatable processes for designing, developing, and deploying modernized systems.

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In July 2001, TIGTA briefed executives from the PRIME¹ contractor and Business Systems Modernization Office (BSMO), and subsequently reported that issues related to project management and schedule realism continued to put the CC 2002 project schedule at risk. We recommended that the IRS consider taking a more cautious approach for the project's development, testing, and deployment, and consider delaying the deployment of the project until after the 2002 Filing Season.²

In its response to the above report, the BSMO acknowledged that its ability to deliver promised CC 2002 improvements was in jeopardy and decided to separate CC 2002 into two separate projects: Enhanced Call Routing (ECR) and IRFOF.³ The IRS' Information Technology Services (ITS) function planned to deliver a majority of the CC 2002 DDR benefits in January 2002 with the new ECR project. The PRIME contractor and the BSMO planned to deliver the IRFOF project in March 2002, although the revised commitment to the Congress was for deployment sometime during the spring of 2002.

In November 2001, the Deputy Commissioner for Modernization and Chief Information Officer requested that the TIGTA perform project management reviews of the ECR and IRFOF projects. We performed project management reviews to determine whether these projects would be able to deliver the customer service enhancements planned for 2002.

To accomplish our objective, we reviewed available documentation and interviewed the PRIME contractor and IRS executives, managers, and analysts located at the IRS'

¹ The PRIME Alliance is a group of leading companies brought together by the Computer Sciences Corporation to provide the IRS with access to commercial best practices, guarantee access to viable alternative solutions, and streamline the systems acquisition process.

² *Uncertainties Facing the Customer Communications 2002 Project May Jeopardize Its Timely Deployment* (Reference Number 2001-20-179, dated September 2001).

³ IRS Management Response to *Uncertainties Facing the Customer Communications 2002 Project May Jeopardize Its Timely Deployment* (Reference Number 2001-20-179, dated September 2001).

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Information Technology Services Timely Delivered the Enhanced Call Routing Project

National Headquarters and New Carrollton, Maryland, offices. We performed these reviews between January and March 2002, in accordance with the President's Council on Integrity and Efficiency's *Quality Standards for Inspections*. Detailed information on our objective, scope, and methodology is presented in Appendix I. Major contributors to the report are listed in Appendix II.

The ECR project improves taxpayer service by more efficiently processing telephone calls, reducing the number of call transfers, and directing appropriate calls to automated services. Incremental changes to an existing IRS system, the Telephone Routing Interactive System (TRIS),⁴ allowed the ITS staff to timely deliver the ECR project. The IRS deployed the ECR project in January 2002 in time for the 2002 Filing Season.

The ECR project delivered a significant portion of the originally intended taxpayer benefits

The ECR project delivered a significant portion of the automated call routing capabilities originally planned in the CC 2002 project. The ITS staff used the design work previously performed by the PRIME contractor for the DDR initiative to help develop and deliver the ECR project. The PRIME contractor and the IRS performed a comparison of the ECR and DDR capabilities.⁵ The resulting gap analysis showed that the ECR project, using the TRIS, could deliver a significant portion of the DDR capabilities originally planned. In fact, the TRIS already performed a majority of these capabilities without requiring any new programming.

The TRIS will be able to identify taxpayer issues early in the telephone call. The TRIS will route the taxpayer's call to the appropriate IRS assistor based on the taxpayer's

⁴ The TRIS is a menu-based call routing application that permits taxpayers using a touch-tone telephone to direct themselves to the appropriate source of assistance at the IRS. The TRIS allows taxpayers to resolve selected customer inquiries without the intervention of an IRS employee.

⁵ *The Customer Communications Engineering Study Tactical Comparison of DDR and ECR*, dated November 26, 2001.

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account conditions. Taxpayer calls routed by the TRIS for automated responses will permit IRS employees who would have answered telephone calls to do other work. This system will also shield employees who normally respond to automated inquiries about outstanding debts to the IRS from handling more routine refund-related questions.

The gap analysis also described several CC 2002 DDR capabilities that the ECR project will not be able to deliver this year. For example, the TRIS cannot use an employer identification number (EIN) to look up taxpayer account conditions. The IRS received approximately 3.7 million EIN calls out of a total of 40 million calls to IRS employees in 2001.

While the TRIS does support English and Spanish touchtone calls, it does not provide voice-activated responses to callers. Additionally, the TRIS only evaluates the primary taxpayer identification number when routing calls to IRS employees or automation applications.

The IRS eventually plans to move the TRIS from the existing systems environment to a modernized systems environment. However, this will not occur until some time in 2003 or 2004. The IRS also plans to address other ECR limitations over time as it re-engineers or replaces the existing systems environment. Until then, the ECR project provides enhanced customer service now instead of a year or two from now.

Delivery of the IRFOF capabilities will be a significant accomplishment for the IRS because it will provide secure Internet access for millions of taxpayers to obtain information on whether their tax returns have been received and processed, and the status of their refunds. To protect the taxpayer's privacy, the IRFOF project requires that the taxpayer provide his/her social security number, filing status, and the refund amount shown on the tax return.

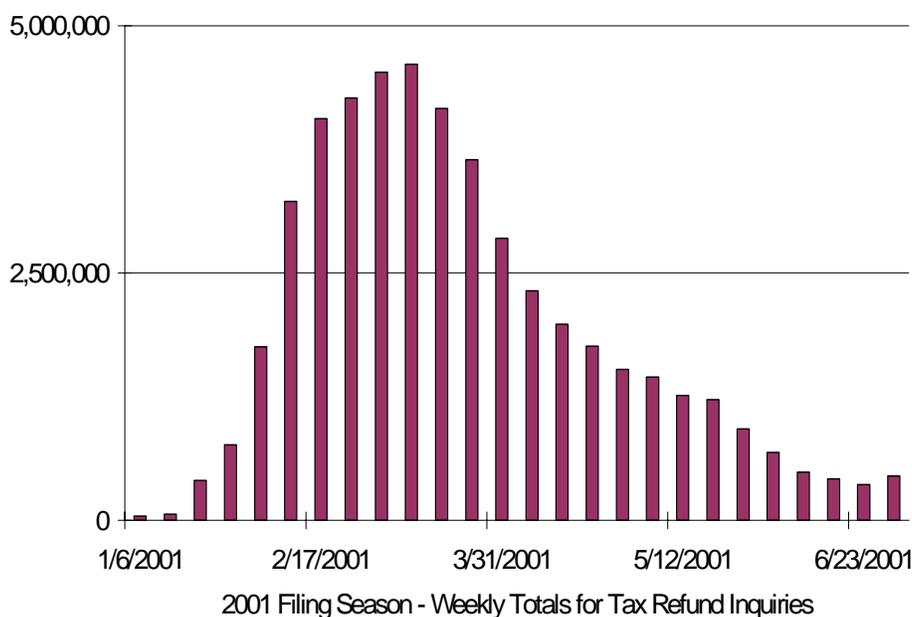
The BSMO originally planned to deploy the capabilities that the IRFOF project will provide during the 2002 Filing Season. However, delivery of these capabilities has encountered several delays over the past year. As of the end of our review, the IRFOF deployment date had been

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rescheduled to May 2002 or later, beyond the peak period that taxpayers normally inquire about the status of their refunds.

During 2001, tax refund inquiries from taxpayers peaked between mid-February and the end of March, and averaged over 3.9 million refund inquiries per week.⁶ The following graph illustrates weekly totals for refund inquiries received by the IRS between January 6, 2001, and June 30, 2001.



Source: IRS Joint Operations Center

The main factor delaying the deployment of the IRFOF project was that the security features could not be adequately tested because the supporting infrastructure was not ready. We also identified some conditions involving realism of the IRFOF schedule and the elimination of some planned capabilities. Details on these conditions are outlined below.

⁶ In 2001, taxpayers made 31.4 million refund inquiries between February 10 and March 31, an average of 3.9 million per week. (Source: IRS Joint Operations Center.)

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Delays in testing the IRS' modernized security architecture impacted the IRFOF project schedule

The project providing the security for the IRFOF project, the Security and Technology Infrastructure Release (STIR), encountered problems in testing the security of the infrastructure for the IRFOF project. Because the security features could not be adequately tested, the deployment of the IRFOF project was delayed until May 2002. The BSMO and PRIME contractor will have to wait until 2003 to determine how well the IRFOF project will work under peak filing season conditions.

However, delivery of the IRFOF project later in 2002 will provide a means for testing the application's quality in a live environment. This will allow the BSMO and the PRIME contractor time to ensure the project is working as expected before submitting it to the demands of the filing season, and provide opportunities for project enhancements that the BSMO plans to release in the future.

The BSMO and PRIME contractor did not fully consider dependencies on other projects when projecting the initial deployment date

MITRE, the IRS' modernization strategic support contractor, prepared a report dated June 15, 2001, entitled "Customer Communications 2001: Lessons Learned." The IRS planned to use the lessons learned as a roadmap for the effective management of modernization projects.

The MITRE report highlighted project management and schedule realism as two of the most critical lessons to be learned.

- **Project management** maturity and control deficits led to an incomplete picture of project status and critical activities and dependencies, causing inaction in making course corrections.
- The lack of **schedule realism**, resulting largely from backing into filing-season delivery dates, resulted in little buy-in to the schedule, and hence a "self-fulfilling prophecy" of failure.

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During our CC 2002 review, we identified multiple dependencies on other projects and IRS processes that put the CC 2002 project schedule at risk. We recommended that the IRS re-evaluate the CC 2002 project management, including the IRFOF project (specifically its dependencies on other projects) and build realistic recovery time into the work schedule to minimize the impact of delays. If these risks could not be overcome, we recommended that the IRS consider postponing the IRFOF project deployment until after the 2002 Filing Season.

In its October 2001 spending plan submitted to congressional appropriators, the IRS committed to a spring 2002 delivery of the IRFOF project. In its contract with the PRIME, the IRS set a target date of March 28, 2002, which would have been in time to realize some taxpayer benefits before the end of the Filing Season. Because the BSMO's project management plans did not fully consider the impact of delays from dependent projects, especially STIR, the IRFOF project team could not overcome the risks in meeting the March target date.

Some planned IRFOF capabilities were eliminated to enable deployment during the 2002 Filing Season

The original CC 2002 project planned to deliver enhanced customer service to English- and Spanish-speaking taxpayers. The revised IRFOF project only provides service to English-speaking taxpayers. Historically, Spanish language telephone calls represent 5 percent of all attempts. The BSMO postponed this capability until a later date.

While the PRIME contractor estimates that the revised project addresses 92 percent of the different types of taxpayer refund inquires,⁷ it will not contain the robust reporting of management information initially proposed.⁸ In its December 1999 contract with the PRIME, the IRS

⁷ Between January 6 and March 16, 2002, the IRS received over 16.7 million tax refund inquires via the telephone. The BSMO estimates that this translates into an Internet volume of over 5 million inquires.

⁸ *IRS Information Technology Investment Account Spending Plan*, March 2000.

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envisioned better reporting and quality assurance capabilities for business management by capturing and storing essential business data about telephone and Internet activities. It also envisioned upgraded monitoring and management systems that would monitor and facilitate telephone and Internet services available to the taxpayer. The current project does not provide IRS managers with the ability to readily access management information captured by the IRFOF project. This information would also be especially useful during the deployment of the IRFOF project to help troubleshoot any performance or capability problems that may occur. Future enhancements are part of an IRS study and are targeted for implementation sometime in 2003 or 2004.⁹

We believe the BSMO agreed to accept less functionality than originally planned in an attempt to meet the March delivery target. MITRE warned against this when it identified schedule realism as a critical lesson to be learned.

Management's Response: Because we did not make any recommendations in this report, a formal response was not required. However, BSMO management requested an extension to respond to our draft report from June 17, 2002, to June 24, 2002. As of June 27, 2002, management had not responded to the draft report.

⁹ Customer Contact Environment Engineering Study.

Detailed Objective, Scope, and Methodology

The overall objective of this review was to determine whether the Enhanced Call Routing (ECR) project and the Internet Refund Fact of Filing (IRFOF) project would deliver the planned customer service enhancements for 2002.

To accomplish this objective, we performed the following audit tests:

- I. Evaluated whether the IRFOF project would be timely delivered prior to the 2002 Filing Season.
 - A. Reviewed project schedules and validated whether estimated task completion dates were reasonable with obtainable goals to meet scheduled implementation dates. As part of this process, we interviewed project managers and staff from the PRIME¹ contractor and the Business Systems Modernization Office (BSMO).
 - B. Obtained the most current Work Breakdown Structures for the IRFOF, Security and Technology Infrastructure, and Enterprise Systems Management projects, as updates occurred, to identify modifications (slippage).
 - C. Evaluated the PRIME contractor and BSMO plans to address the Office of Cyber Security concerns related to the Computer Security Plan and the Security Risk Assessment.
- II. Determined what portion of the original taxpayer benefits of the Customer Communications 2002 Data Directed Routing (DDR) initiative would be delivered by the new ECR project by comparing and identifying gaps between the planned taxpayer benefits provided by the ECR project in the 2002 Filing Season with those originally planned in the DDR initiative. As part of this process, we interviewed project executives, managers, and staff from the Information Technology Services function, the BSMO, and the PRIME contractor.

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Appendix II

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Appendix III

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