

**GAO**

Report to the Chairman, Subcommittee  
on Oversight, Committee on Ways and  
Means, House of Representatives

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July 1998

**TAX  
ADMINISTRATION**

**IRS' Telephone Routing  
Interactive System May  
Not Meet Expectations**



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**General Government Division**

B-276596

July 13, 1998

The Honorable Nancy L. Johnson  
Chairman, Subcommittee on Oversight  
Committee on Ways and Means  
House of Representatives

Dear Chairman Johnson:

Improving service to taxpayers is one of the Internal Revenue Service's (IRS) highest priorities. Guided by a broad plan called the "Customer Service Vision," IRS has begun a long-term process of consolidating work units, retraining employees, and developing new information systems to enable its telephone customer service representatives to better serve taxpayers. The vision called for IRS to reduce written correspondence and walk-in contacts with taxpayers and serve more taxpayers by telephone. Although the demand for telephone assistance was expected to increase substantially, IRS has had a long-standing problem providing taxpayers access to telephone assistance.

One of the ways IRS planned to provide better telephone access was through the use of the Telephone Routing Interactive System (TRIS). TRIS was designed to route taxpayer calls to different sources of assistance, including customer service representatives, recorded messages on various tax topics, and interactive applications. Interactive applications are designed to allow taxpayers with certain questions to obtain the information or service they need without speaking to an IRS customer service representative, thereby improving access by freeing up customer service representatives to handle other calls. For example, the Refund Inquiry application was designed to allow taxpayers to determine the status of their refunds. Although we previously reported that IRS has made significant progress in improving accessibility, the improvements resulted primarily from increasing the number of employees who were available to assist taxpayers rather than many more taxpayers being served by interactive applications.<sup>1</sup>

Because TRIS' applications offer the potential to improve telephone accessibility without adding more employees, we reviewed IRS' efforts to develop and implement TRIS under our basic legislative responsibility for reviewing federal programs and activities. Because of the Subcommittee's continuing interest in improving the quality of IRS' service to taxpayers, you asked that we issue this report to you. This report discusses our

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<sup>1</sup>Tax Administration: IRS' 1997 Tax Filing Season (GAO/GGD-98-33, Dec. 29, 1997).

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evaluation of (1) taxpayers' use of TRIS' applications and (2) TRIS' expected benefits as presented in IRS' business case.

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## Results in Brief

TRIS is a key component of IRS' plans to improve its telephone accessibility. As of May 1998, IRS had implemented 9 different applications at all of its 25 customer service centers. To the extent that many taxpayers can resolve their problems without talking to IRS customer service representatives, other taxpayers who do need to talk to customer service representatives should find it easier to reach them. However, relatively few taxpayers have used TRIS' applications; and although IRS has spent about \$53 million on TRIS through February 1998, the system's benefits remain uncertain.

IRS performance data show that most taxpayers get the assistance they need from customer service representatives rather than interactive applications. In fiscal year 1997, IRS records showed that about 30 million calls were routed through TRIS. About 24 million of those calls, or about 80 percent, were served by a customer service representative, while about 3 million callers hung up before speaking to a representative or completing an application. This left about 3 million calls, or 10 percent, being served by TRIS' applications. Furthermore, about 2.7 million of those 3 million callers used the Refund Inquiry application to check the status of their refunds—information that is available on another IRS automated telephone system. Thus, about 300,000 callers used TRIS' applications to obtain information that was not already available from another system.

IRS has not done a comprehensive assessment of why TRIS' applications are not serving more taxpayers. However, our review of pilot test reports, TRIS documents, and IRS officials' comments indicates that IRS may have automated services that relatively few taxpayers need. IRS officials told us that at the time they made their decision about applications to include with TRIS, they did not have comprehensive data on the reasons why taxpayers call IRS. The officials said that some interactive applications were developed primarily because the applications were easy to automate, including the Location application, which provides taxpayers with the mailing address for selected tax returns and forms. As we reported in March 1996, taxpayers may find the interactive applications difficult to use due to the number of options and the length of system instructions.<sup>2</sup> Also, IRS' restrictions prevent taxpayers with certain types of cases from using some of the interactive applications, and IRS has not publicized the

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<sup>2</sup>Tax Administration: Making IRS' Telephone Systems Easier to Use Should Help Taxpayers (GAO/GGD-96-74, Mar. 11, 1996).

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services that are available or provided information on how to use the interactive applications. Further, at the time of our current review, two of the four centers we visited were not using TRIS' capability that allows taxpayers access to interactive applications when the demand for assistance exceeds the number of available customer service representatives.

IRS does not have a reliable estimate of the benefits that TRIS should provide. IRS' 1996 benefit estimate is based on several key assumptions that may no longer be valid, including (1) shifting 45 percent, about 55 million, of taxpayers' calls from customer service representatives to interactive applications by fiscal year 2000; (2) having 27 interactive applications developed, tested, and implemented at all of its customer service centers by fiscal year 2000; and (3) developing and implementing the Integrated Case Processing (ICP) system at all centers—a system to enable representatives to quickly obtain data needed to answer taxpayers' questions. In fiscal year 1997, 3 million callers, or about 10 percent of calls routed through TRIS, were served by TRIS' applications. IRS now plans to develop only 10 applications itself and contract for the development of other needed applications, and ICP was terminated in February 1997.

Additionally, the results of the pilot tests and subsequent Investment Evaluation Review indicated that the projected benefits may not be achieved. The evaluation team could not project a return on investment due to the lack of reliable cost and benefit data and specifically recommended that TRIS undergo a second evaluation in 1998.

Because relatively few taxpayers are using TRIS' applications and many of the system's projected benefits are uncertain, IRS' expected role of interactive applications in its efforts to improve customer service may also be uncertain.

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## Background

In fiscal year 1997, IRS received about 125 million telephone call attempts<sup>3</sup> from taxpayers inquiring about things such as where to file their returns, the status of their refunds, and their account balances. Increasing taxpayer access to telephone assistance is a major emphasis in IRS' Fiscal Years 1997 to 2002 Strategic Plan. TRIS is a major component of IRS' long-term strategy to handle more of its taxpayer contacts by telephone rather than through correspondence or in person. One of TRIS' goals is to improve

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<sup>3</sup>Call attempts represent the sum of calls answered, busy signals, and calls abandoned by the caller before an IRS customer service representative could answer the call.

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taxpayers' access to telephone assistance by automating the many telephone calls IRS receives for routine or taxpayer account-related information. To the extent that many taxpayers are able to resolve their problems using TRIS' applications, other taxpayers who do need to talk to customer service representatives should find it easier to reach them.

TRIS is designed to allow a taxpayer with a Touch-Tone telephone to access TRIS' master menu and direct the call to the appropriate source for assistance. TRIS allows taxpayers to route their calls to obtain live assistance from an IRS customer service representative, prerecorded information on various tax topics, or general and account information and payment arrangements through TRIS applications.

According to its 1995 to 2001 Business Master Plan, IRS planned to develop and implement 32 TRIS applications nationwide. As of May 1998, IRS had implemented 9 different applications at all of its 25 customer service centers and was testing one other application at the Fresno Customer Service Center.

TRIS' applications vary, from advising taxpayers on where to mail their returns (the Location application) to telling them the status of their refunds (the Refund Inquiry application). Specifically, using the Location application, taxpayers can determine IRS' mailing address for mailing selected tax returns and forms. The Refund Inquiry application provides taxpayers with the status of their tax refunds, including when their refund checks were issued. To use this application, taxpayers are required to provide information such as Social Security number, amount of the refund, and filing status. Descriptions of the nine interactive applications that had been implemented as of May 1998 are included in appendix I.

To assess the merits of new information systems before implementing them, IRS generally conducts a business case, an investment evaluation review, and pilot testing. A business case is a management tool that documents key aspects of an information technology initiative to include (1) justifying the initiative and helping ensure that it provides programmatic benefits, (2) providing a mechanism to aid in tracking and managing initiatives during implementation, and (3) establishing a baseline against which progress of the initiative may be judged. TRIS' business case, completed in July 1996, was dependent on other customer service projects, including the ICP system. According to the business case, TRIS would cost \$67 million and provide benefits of \$815 million through 2005.

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ICP, as originally envisioned, was to allow customer service representatives access to several automated systems that housed the data they needed to assist taxpayers when they called for assistance. ICP was also expected to include automated tools to enable the taxpayers to be served faster. The tools were to include automated refund inquiries and installment agreements for taxpayers who could not pay their taxes in full.

IRS generally conducts an investment evaluation review to analyze the baseline data used to justify the investment in an information system and the results of system development and implementation. The investment review for TRIS was completed in September 1996. The review and subsequent report covered TRIS activities during fiscal years 1992 through 1996, including an assessment of the July 1996 business case. The review included an evaluation of TRIS development and implementation activities and a determination of whether business goals were met.

Pilot testing of information systems is designed to evaluate the performance of a system in one location before deciding whether to implement the system at other locations. IRS uses the pilot test to determine the extent to which the system delivers anticipated benefits. TRIS' first three applications were pilot tested at the Nashville Customer Service Center for 60-day periods during April through June 1995. The next three applications were pilot tested at the Fresno Customer Service Center for 60-day periods during September through November 1996.<sup>4</sup> A key element of the tests was to measure the extent to which the interactive applications affected a taxpayer's ability to reach IRS on its toll-free telephone number. IRS measured the applications' affect on accessibility in several ways, including determining the number of hours the applications made available to customer service representatives for assisting additional taxpayers.

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## Objectives, Scope, and Methodology

Our review objectives were to evaluate (1) taxpayers' use of TRIS' applications and (2) TRIS' expected benefits as presented in IRS' business case.

To evaluate taxpayers' use of interactive applications, we analyzed fiscal years 1997 and 1998 data from TRIS' management information system to determine how many taxpayers used interactive applications versus customer service representatives and how the usage compared with IRS'

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<sup>4</sup>Test reports for the other three applications that were implemented in February and May 1998 were not available for our review when we did our audit work.

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goal of 45 percent of taxpayers being served by interactive applications. We also analyzed data to determine how frequently taxpayers used the various applications. To determine some of the reasons why some taxpayers might not use the applications, we reviewed IRS pilot test reports for the first six interactive applications, analyzed data from TRIS' management information system and other TRIS documents, interviewed IRS officials, and reviewed previous IRS Internal Audit reports and reports done by us.

To evaluate TRIS' expected benefits, we reviewed the methodology and assumptions behind IRS' projection of TRIS costs and benefits through fiscal year 2005. More specifically, we reviewed the July 1996 Automated Self Service Applications Business Case, which presented anticipated costs and benefits for three projects, including TRIS. We reviewed the September 1996 IRS Investment Evaluation Review report that included an evaluation of TRIS development and implementation activities and a determination of whether business goals were met. We reviewed IRS' April 1997 Internal Audit report on TRIS that evaluated the efforts of Customer Service and Information Systems to develop and deliver TRIS applications. In addition, we reviewed the results of the pilot tests of the first six applications to determine if they increased accessibility and provided other expected benefits.

We visited IRS customer service centers in Atlanta, GA; Jacksonville, FL; Nashville, TN; and Buffalo, NY, to obtain center officials' views on TRIS and taxpayers' use of the interactive applications. We visited these centers because either they were involved in testing TRIS applications or they were some of the first centers to receive the applications. We also visited and interviewed IRS Customer Service and Information Systems officials at IRS' National Office in Washington, D.C.

We conducted our work from May 1997 through May 1998 in accordance with generally accepted government auditing standards. We requested comments on a draft of this report from the Commissioner of Internal Revenue or his designated representative. Responsible IRS officials, including the National Director, Customer Service Telephone Operations and Systems; the Customer Service Transition Executive; and staff of the Assistant Commissioner (Customer Service) and Information Systems (Customer Service), provided oral comments and factual clarifications in a June 4, 1998, meeting. We incorporated those comments in the report where appropriate. The Commissioner of IRS provided us written

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comments on June 17, 1998, which are discussed near the end of this report and reproduced in appendix II.

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## Few Taxpayers Use TRIS' Interactive Applications

IRS performance data show that relatively few taxpayers use TRIS' applications. The possible reasons why more taxpayers are not using the interactive applications vary, from IRS offering applications that relatively few taxpayers need to taxpayers' dislike of automated systems or lack of knowledge on how to use them.

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## Most Taxpayers Served by Customer Service Representatives Rather Than TRIS' Interactive Applications

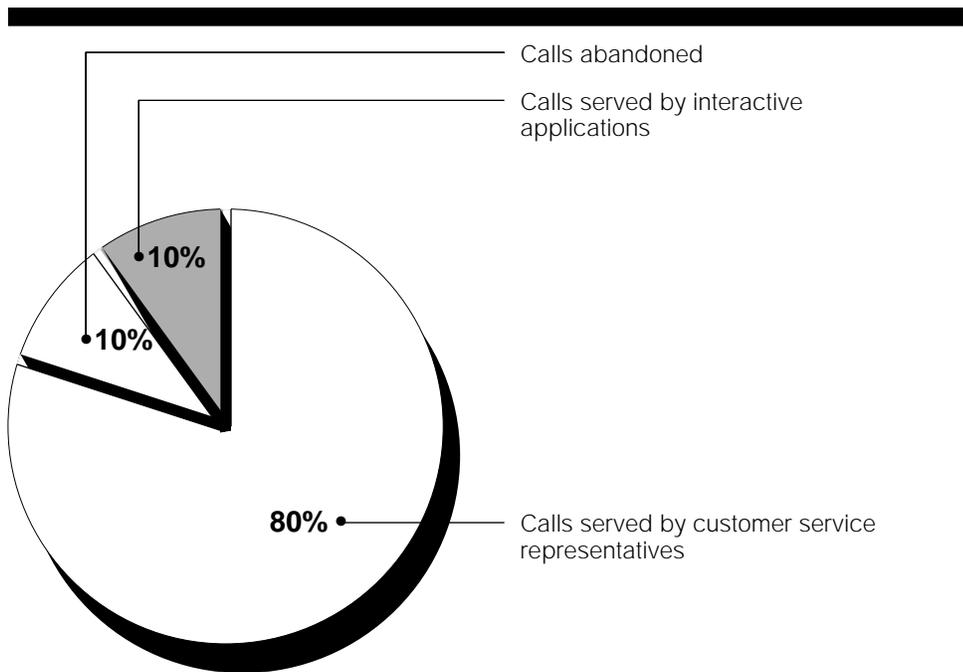
In fiscal year 1997, about 30 million calls were routed through TRIS' call routing system.<sup>5</sup> About 24 million of those calls, or about 80 percent, were served<sup>6</sup> by a customer service representative, while about 3 million other callers simply hung up before being routed to a customer service representative or completing an application. This left about 3 million callers, or 10 percent, who were routed through TRIS and served by an interactive application, as shown in figure 1.

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<sup>5</sup>According to IRS officials, IRS actually answered 60 million calls on its (1-800-829-1040) toll-free number in fiscal year 1997; but, TRIS' management information system only captured 30 million calls. Fourteen of the customer service centers did not have TRIS' management information reporting system throughout the fiscal year because the system was installed at customer service centers in stages during the year.

<sup>6</sup>"Served" means the callers reached a representative or completed an interactive application. IRS records do not show whether the taxpayers were satisfied with the information they received.

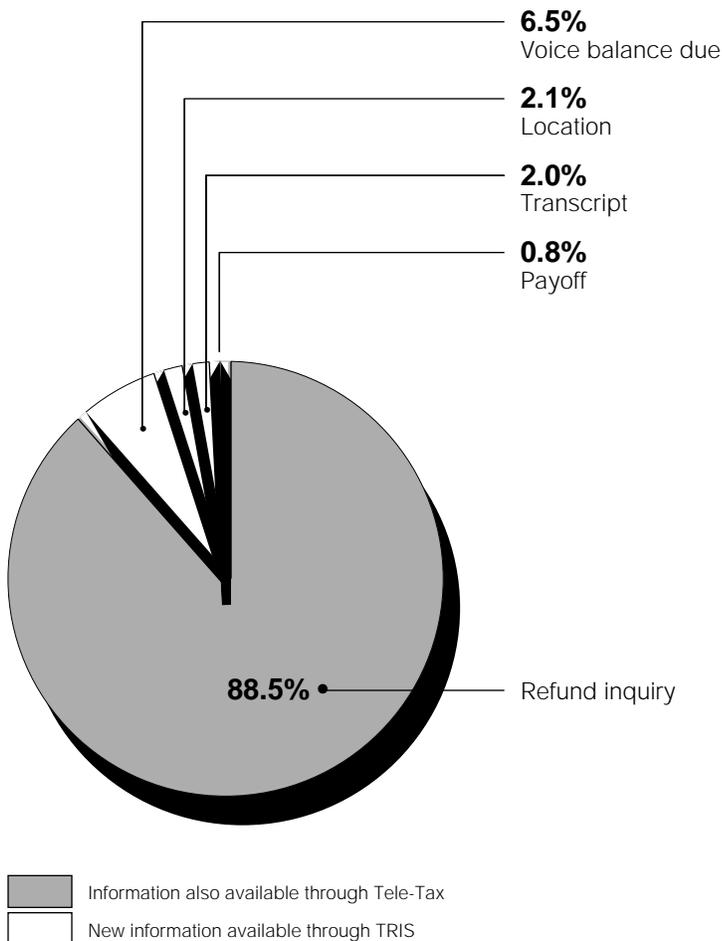
**Figure 1: Taxpayers Served by TRIS' Applications Compared With Those Served by Customer Service Representatives in Fiscal Year 1997**



Source: IRS data.

The level of taxpayers' use of TRIS varied by application. For example, of the 3 million callers, 2.7 million (89 percent) used the Refund Inquiry application to check the status of their refunds, while about 25,000 callers (less than 1 percent) used the Payoff application to determine the balance on the taxes they owed, as shown in figure 2.

**Figure 2: Taxpayer Usage of TRIS' Applications in Fiscal Year 1997**



Note 1: Percentages in chart do not add up to 100 percent due to rounding.

Note 2: Chart does not show data for all nine applications because three were not available in 1997, and IRS did not report separate data for one application—Voice Processing Personnel Identification Number.

Source: IRS data.

**In fiscal year 1997, 2.7 million callers used the Refund Inquiry application to check the status of their refunds—information that is available on IRS'**

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Tele-Tax System.<sup>7</sup> Thus, about 300,000 callers used TRIS' applications to obtain information that was not on another automated system.

IRS' performance data for the first 5 months of fiscal year 1998 showed that most taxpayers continued to rely on the customer service representatives for the help they needed from IRS rather than the interactive applications. Specifically, during this period, about 21.2 million calls were routed through TRIS. About 18.5 million of those callers, or about 87 percent, either were served by a customer service representative or hung up. This left about 2.7 million, or about 13 percent, who were served by an interactive application. Similar to fiscal year 1997, 2.5 million, or about 94 percent, of the calls that were served by interactive applications were to inquire about the status of refunds.

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### Reasons for Limited Use of Interactive Applications Vary

IRS has not done a comprehensive assessment of reasons why TRIS' applications are not serving more taxpayers; however, there are several possibilities. For example, IRS may have automated assistance that relatively few taxpayers need. In addition, some taxpayers may find the system difficult to use, may be restricted from using certain applications, or may be reluctant to use the applications because they are not familiar with the system and the services the applications provide. Also, local operational decisions have limited the availability of the interactive applications at some customer service centers.

### Development of Some Applications Were Not Based on Expected Call Volume

Our review of pilot test reports, TRIS documents, and IRS officials' comments indicate that IRS may have automated services that relatively few taxpayers need. When IRS made its decisions on which services to automate, IRS officials said that they did not have comprehensive data on the reasons why taxpayers call IRS. Further, they told us that the Payoff and Location applications were developed primarily because the services were easy to automate. IRS' Investment Evaluation Review team recommended that decisions on which services to automate should be supported by projected call volumes.

Also, in April 1997, IRS' Internal Audit found that, in an effort to aggressively deliver TRIS applications, IRS was not performing certain critical processes that were designed to ensure that new applications are cost beneficial and properly prioritized. Internal Audit maintained that the criteria for prioritizing the applications should include the number of

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<sup>7</sup>IRS' Tele-Tax System provides taxpayers an option to listen to recorded tapes on different tax topics or check on the status of their refund. However, the TRIS Refund Inquiry application can access taxpayer accounts nationwide and route callers to a customer service representative.

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taxpayers that are expected to be served, expected savings, and expected costs. According to Internal Audit, the principal focus should be to reduce, to the minimum necessary, the number of taxpayer calls that are forwarded to a customer service representative for information or assistance.

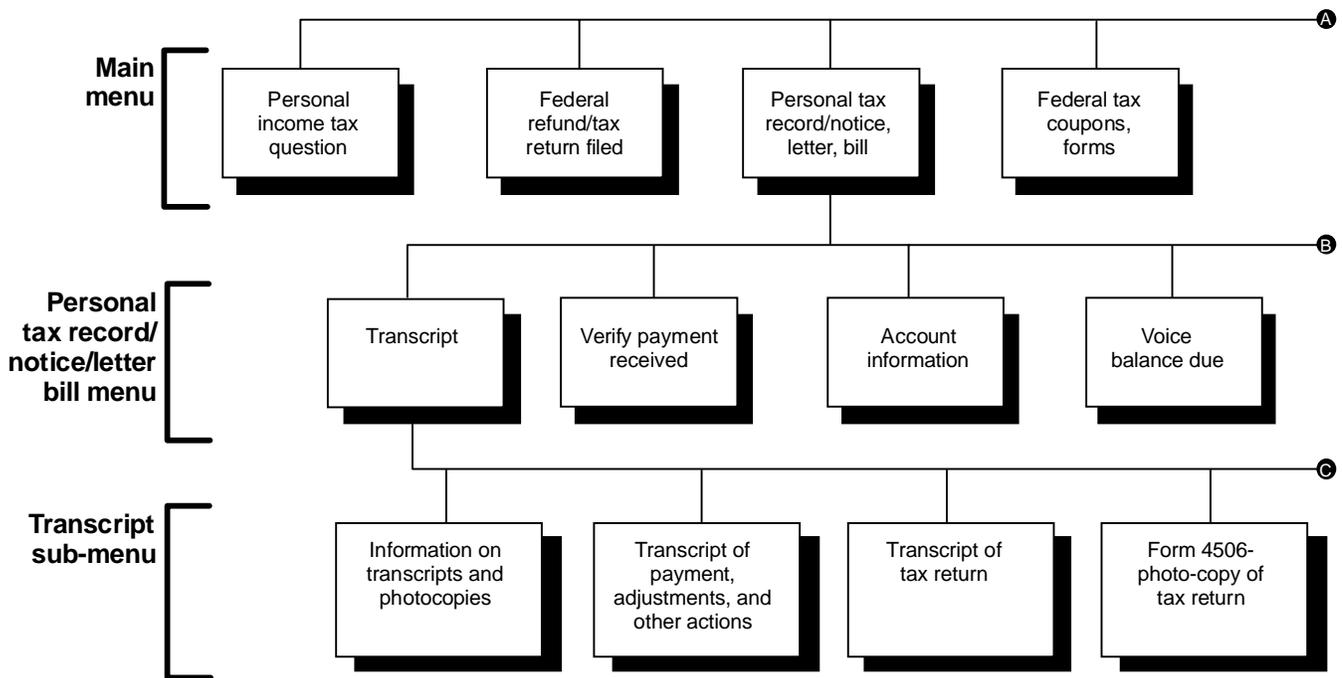
**Taxpayers Are Required to Remember Too Many Options**

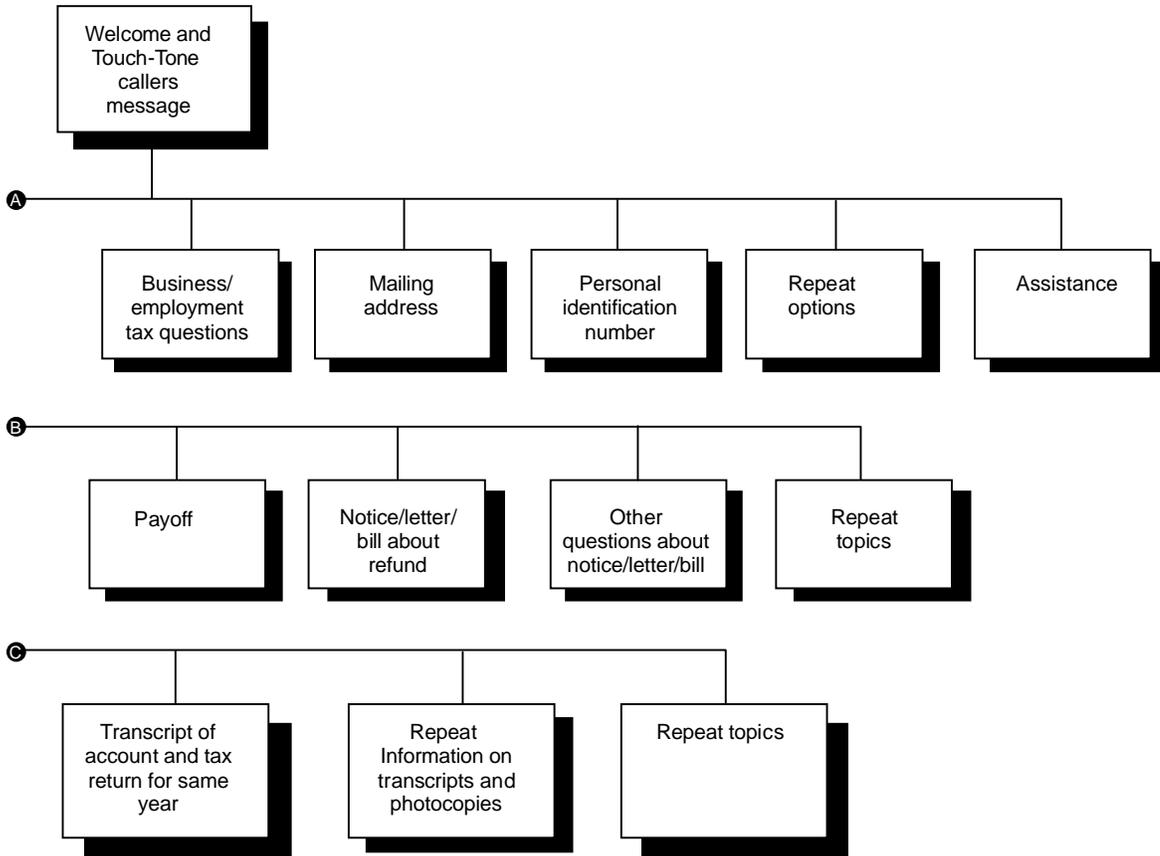
As we reported in March 1996, taxpayers may find the interactive applications difficult to use because of the number of menu options they are required to listen to and remember.<sup>8</sup> When taxpayers are routed to TRIS' main menu, they are presented with nine options. They must listen to and remember the different options unless they are familiar with the menu and know which option provides the specific service they need. For example, taxpayers who call to obtain a transcript of a return or account are presented with nine main-menu options, including the personal tax-records option. After taxpayers select the personal tax-records option, they are presented with another eight options, including the Transcript option. After gaining access to the Transcript application, taxpayers are presented with seven more options. The various options taxpayers may have to listen to in order to use the Transcript application are depicted in figure 3.

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<sup>8</sup>GAO/GGD-96-74, Mar. 11, 1996.

Figure 3: Options Taxpayers Hear in Accessing the Transcript Interactive Application





Source: TRIS Transcript Menu.

In a 1992 IRS study, taxpayers said that five to six options were more than they could remember. In 1996, we recommended that IRS conduct a cost-benefit analysis of the actions needed to overcome the problems caused by too many menu options, including using multiple toll-free numbers and providing taxpayers with a written, detailed step-by-step description on how to use the interactive systems' menu options. In response to our recommendations, IRS said it planned to do further tests of the menu options and interactive telephone systems to determine

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customer needs and their abilities to use the systems easily.<sup>9</sup> At the time of this review, IRS had not conducted these studies.

Also, the telephone routing system does not allow taxpayers to return to the main menu after selecting one of TRIS' applications. As a result, taxpayers who select the wrong menu option or want to resolve multiple issues with one call must either wait for an available customer service representative or hang up and call back. For example, if a taxpayer completed the Refund Inquiry application and also needed a copy of his account transcript, the taxpayer must wait for an available representative or hang up and call back and select the menu options leading the taxpayer to the Transcript application. If callers were allowed to return to the main menu, they could select the Transcript option and use the interactive system to obtain the information they need in one telephone call. IRS' design guidelines called for such a feature, but IRS officials said they decided against using it to limit the amount of time taxpayers stay in the system. The officials believed that by limiting taxpayer time in the system, more taxpayers could be served. However, without this feature, many taxpayers may have to call back or wait for an available customer service representative to obtain the information they need and as a result spend more, not less, time in the system. Allowing taxpayers to return to the main menu may reduce taxpayer frustration and allow them to obtain the information they need more quickly and in one telephone call, thereby enabling IRS to serve more taxpayers.

### IRS' Restrictions Prevent Some Taxpayers From Using Applications

IRS officials told us that IRS' restrictions prevent taxpayers with certain types of cases from using some interactive applications. These taxpayers can attempt to use an application but, after TRIS accesses their records and determines that one of the restrictions applies, their calls are routed to a customer service representative for special handling. For example, prior to May 1998, only those taxpayers who owed less than \$10,000 could use the Voice Balance Due application to set up an installment agreement. Also, if IRS records indicate that a taxpayer has not filed a tax return in a previous year and the taxpayer attempts to use the application to set up an installment agreement, the caller would be routed to a customer service representative. Similarly, if IRS records indicate that a taxpayer is under investigation by the IRS Criminal Investigation Division and the taxpayer tries to use the Payoff application, the taxpayer will be routed to an IRS representative.

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<sup>9</sup>GAO/GGD-96-74, Mar. 11, 1996.

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Overall, in fiscal year 1997, IRS restrictions prevented over 1 million callers from using the interactive applications. IRS has studied these restrictions and is considering revising some of them. For example, on May 1, 1998, IRS revised the Voice Balance Due restriction on the threshold of taxes owed from \$10,000 to \$15,000 and eliminated the dollar ceiling for extensions. The officials told us they are also putting together a Request for Information Services to IRS' Information Systems for improvements to other applications.

### IRS Has Not Publicized Applications

Some taxpayers are resistant to using automated systems, as indicated by their responses during pilot testing. In focus group interviews, customer service representatives said some taxpayers preferred to talk to a representative, disliked automated systems, defaulted to verify information previously received from an interactive application, and that the system did not permit users to correct entry errors or return to previous menus. IRS officials also told us that taxpayers often want to handle sensitive tax matters with a person, especially for payment-related matters.

Additionally, many taxpayers may not be using the applications because they are not aware of the services offered or are not familiar with how the applications work. IRS has not publicized the services that are available or provided information on how to use the interactive applications either to the taxpayers or the tax practitioner community. According to an IRS document, "IRS has categorically failed to inform the general public that these automated processes exist and how to be prepared to use them when they call." The Investment Evaluation Review team questioned whether IRS had adequately marketed TRIS and recommended that IRS consider developing strategies to inform the public about the services the system has to offer. Customer Service officials stated that they had deferred marketing the system until the applications and taxpayer data were made available at all the customer service centers.<sup>10</sup> Customer service officials told us that IRS plans to do some limited marketing by using the 1998 tax filing packages to inform taxpayers about the services provided by the interactive applications and what information they will need to use them.

### Some TRIS Capabilities Are Not Being Used

Two of the four centers we visited during this review were not using TRIS' ability to allow taxpayers access to interactive applications when the demand for assistance exceeds the number of available customer service

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<sup>10</sup>Prior to the implementation of the Universal Integrated Data Retrieval System, in November 1997, access to data on taxpayers was limited to the service centers where the taxpayers filed their returns.

representatives. This capability, referred to as “selective expanded access,” is to inform callers that due to a high volume of calls only automated services are available. Taxpayers are then to be given a mini menu of TRIS interactive applications and Tele-Tax from which to choose. The expanded access feature offers at least some assistance to millions of callers who would otherwise receive busy signals, particularly during the filing season when the demand for services is high. Also, according to some IRS officials and an IRS study, using this capability can significantly increase the number of taxpayers served, as well as provide other benefits. According to an IRS document, data repeatedly show that the use of selective expanded access increases the number of completely automated calls by 400 percent.

The Nashville Customer Service Center tested this capability for approximately 2 months during the 1996 tax filing season and found that over 800,000 callers had the option of using interactive applications or Tele-Tax instead of receiving busy signals. The study also reported reduced telephone costs, taxpayer calls abandoned, and wait times. The study concluded that this capability could reduce the number of customer service representatives needed to handle account-related calls.

IRS was aware of the inconsistent use of TRIS’ selective expanded access feature and was in the process of establishing standard operating procedures. IRS has decided that the expanded access feature will be used during February through July. Customer service officials told us that the system was not needed during other parts of the year because the customer service representatives would be able to meet the taxpayers’ demand for services. Also, while IRS officials could not provide specific cost data, they said using the feature during nonpeak periods would unnecessarily increase telephone circuitry costs.

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## Despite Sizeable Investment, TRIS Benefits Remain Uncertain

IRS estimated that it had spent about \$53 million on TRIS between fiscal year 1992 and February 1998. Despite this sizeable investment, IRS does not have a reliable estimate of the benefits that TRIS will provide. The benefit estimate of \$815 million through 2005 presented in TRIS’ July 1996 business case was based on several key assumptions that may no longer be valid, including (1) shifting 45 percent of taxpayers’ calls from telephone customer service representatives to interactive applications by fiscal year 2000, (2) having 27 interactive applications developed, tested, and implemented at all of its customer service centers by fiscal year 2000, and (3) developing and implementing ICP at all customer service centers. IRS

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officials acknowledged that TRIS is not likely to serve as many taxpayers as projected; IRS now plans to develop and implement only 10 applications itself and contract for the development of other needed applications, and ICP was terminated in February 1997. The pilot test results indicate that TRIS may not provide expected benefits.

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## Benefit Projections Based on Outdated Assumptions

IRS estimated that TRIS would shift 45 percent of all taxpayer calls to its (1-800-829-1040) toll-free number, or about 55 million calls annually, from customer service representatives to interactive applications. However, as previously discussed in this report, 3 million or 10 percent of the callers routed to TRIS actually used TRIS interactive applications in fiscal year 1997. Of the 3 million, 300,000 taxpayers were served by interactive applications that provided information not already available on IRS' Tele-Tax System. Considering these statistics, IRS has a long way to go in achieving its goal of shifting 45 percent of taxpayers' calls from customer service representatives to interactive applications.

IRS' benefit estimate was also based on fielding 27 applications by the year 2000. As of May 1998, IRS had implemented 9 applications at all of its 25 service centers and had plans to implement one other application. Not only has the number of applications declined significantly, the applications were not implemented when expected. For example, View Debit and View Credit applications were to be implemented in April 1997 but were not implemented until February 1998. In addition, Refund Release and Refund Trace were also to be implemented in April 1997; however, Refund Trace was implemented in May 1998, and Refund Release was still being pilot tested. IRS decided to suspend its plans to develop and implement one other application until it reassesses TRIS and TRIS' role in improving taxpayer service.

ICP was a critical component in IRS' estimate of TRIS' benefits. As envisioned, ICP was to provide customer service representatives access to various databases and related information that the representatives would need to assist taxpayers who called IRS for help. IRS officials said one key feature that made ICP so critical to TRIS' projected benefits was the system's capability to automatically provide customer service representatives information on taxpayers who entered an interactive application but defaulted to a representative. With this information, the representative would know why the taxpayer had called and would have the taxpayer's records available to assist the taxpayer. This would allow the taxpayer to be served faster, thereby enabling the representative to serve more

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taxpayers. However, as of February 1997, IRS terminated the ICP project because of system performance problems and changes in IRS' plans to modernize its computer systems.

IRS' Investment Evaluation Review team also raised questions about TRIS' projected benefits. Specifically, its September 1996 report stated that

- benefit projections were developed for a group of Customer Service projects.<sup>11</sup> No process exists to validate the benefit projections;
- no effort was made to determine whether other areas of IRS would benefit from TRIS applications; and
- benefit projects are at significant risk because of budget realities.

The team was unable to calculate TRIS' return on investment because of "the lack of available consistent historical cost data, the unsupported benefits projections, the lack of accepted performance measures, and the future budget outlook." The team recommended that TRIS undergo a second evaluation in fiscal year 1998. IRS Information Systems officials told us there were no plans for another evaluation as of March 1998.

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### Pilot Test Results Raised Questions About TRIS' Ability to Increase Accessibility

A key feature of IRS' pilot tests of TRIS' interactive applications was to determine if the applications would increase taxpayer access to IRS' telephone assistance. According to the test reports, only the Voice Balance Due application significantly improved taxpayers' ability to reach IRS' telephone assistance.

The pilot tests measured how much the applications increased the number of hours made available to assist other taxpayers. For the 60-day test period, the Voice Balance Due increased the number of hours available for representatives to assist other taxpayers by 1,189 hours. The Voice Processing Personal Identification Number, Payoff, Location, and Transcript applications were determined to have increased the number of hours available to assist other taxpayers by 317, 183, 80, and 69 hours, respectively. The test results for the Refund Inquiry application were inconclusive because other factors, such as changes in the way the site handled calls, significantly affected accessibility during the test period.

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<sup>11</sup>The business case for TRIS included two other systems: Automated Tax Law and Predictive Dialer. Automated Tax Law was to provide interactive applications dealing with general and technical tax law questions. The Predictive Dialer was to be used by IRS' collection employees to automate dialing taxpayer calls and screening out no answers, busy signals, bad numbers, and answering machines.

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## Commissioner's Proposal May Change Role of Interactive Systems

The role of interactive applications and their benefits could change as IRS reorganizes and rethinks its efforts to improve customer service. In January 1998, the IRS Commissioner announced his plans to reorganize IRS and to improve customer service to the level offered by private industry. As of May 1998, Congress was considering legislation that included a provision to restructure IRS around distinct types of taxpayers (i.e., wage and investment, small businesses, large businesses and corporations, and exempt organizations and employee plans). Although the details of the Commissioner's efforts to improve customer service and the legislation have not been finalized, reorganizing IRS around types of taxpayers could have dramatic implications for IRS' customer service vision. IRS' goal of handling 45 percent of taxpayer calls without human intervention may change because the Commissioner has recommended expanding face-to-face assistance, and IRS' fiscal year 1999 budget request included increased funding for walk-in sites. IRS is also faced with incorporating TRIS and its interactive applications in IRS' modernization blueprint.

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## Conclusions

Interactive telephone applications offer promise for improving taxpayer service. However, relatively few taxpayers are using TRIS' applications, and most of those who use them obtain information that is available on another automated system. Accordingly, TRIS' interactive applications have had little effect on improving taxpayers' access to IRS' telephone assistance. IRS appears to have automated some assistance that relatively few taxpayers need. Additionally, some taxpayers may find the system difficult to use, are restricted from using certain applications, or may be reluctant to use the applications because they are not familiar with the system and the services the applications provide because IRS has not publicized them. Also, local operational decisions have limited the availability of the interactive applications when the demand for assistance exceeds the number of available customer service representatives.

IRS has made sizeable investments in TRIS without having a reliable estimate of the benefits that it will provide. Although IRS conducted a business case for TRIS in July 1996, the benefits were based on assumptions that may no longer be valid. Additionally, the Commissioner's plans to improve IRS and proposed legislation to reorganize IRS around types of taxpayers and other efforts to improve customer service could have dramatic implications for IRS' customer service vision and plans for interactive applications.

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## Recommendations

Considering the relatively small number of taxpayers who are using the interactive applications, the absence of a reliable estimate of benefits, and plans to reorganize, we believe IRS needs to rethink its plans for TRIS and the role of interactive applications as it strives to improve customer service. Accordingly, we recommend that the Commissioner of IRS devise a plan to reassess TRIS and its role in improving taxpayer service. The plan should include (1) an analysis of the services taxpayers need, want, and will use; (2) an assessment of why taxpayers are not using the existing TRIS applications; and (3) a reevaluation of the costs and benefits of TRIS. Further, we recommend that IRS delay development and implementation of any additional interactive applications until the reassessment is completed.

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## Agency Comments

We requested comments on a draft of this report from the Commissioner of Internal Revenue or his designated representative. In a June 4, 1998, meeting, responsible IRS officials, including the National Director, Customer Service Telephone Operations and Systems; the Customer Service Transition Executive; and staff of the Assistant Commissioner (Customer Service) and Information Systems (Customer Service) provided oral comments and factual clarifications, which we incorporated in the report where appropriate.

The Commissioner of Internal Revenue provided us written comments on June 17, 1998, (see app. II). He concurred with the report's findings and recommendations. He said IRS was beginning to see significant benefits from TRIS. For example, he said that from fiscal year 1997 through April 1998, TRIS automated 9.7 million calls.

The Commissioner said that IRS was already undertaking efforts to address our recommendations and improve TRIS in both the near term and the long term. Short-term actions include (1) reviewing procedures established for various applications to adjust them to benefit taxpayers, (2) researching reasons why callers default or hang up, (3) working with a contractor to define problems with TRIS and identifying menus and scripts that may be limiting caller use, (4) expanding marketing efforts, (5) improving scripts and enhancing applications, and (6) reevaluating costs and benefits of TRIS. In the long term, the Commissioner said his modernization concept proposed in January 1998 will enable IRS to improve not only TRIS but all taxpayer-related products and practices. He said IRS is to provide a status report for us on their efforts to improve TRIS by December 31, 1998. We believe the efforts to improve TRIS in both the near term and the long term,

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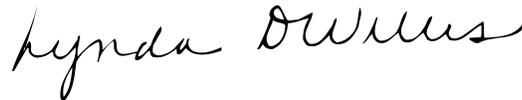
if properly implemented, should accomplish the intent of our recommendations.

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As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will send copies of this report to the Subcommittee's Ranking Minority Member, the Chairmen and Ranking Minority Member of the House Committee on Ways and Means, and the Senate Committee on Finance; various other congressional committees; the Secretary of the Treasury; the Commissioner of Internal Revenue; the Director of the Office of Management and Budget; and other interested parties. Copies will also be made available to others upon request.

Major contributors to this report are listed in appendix III. Please contact me on (202) 512-9110 if you have any questions.

Sincerely yours,

A handwritten signature in cursive script that reads "Lynda D. Willis".

Lynda D. Willis  
Director, Tax Policy and Administration Issues

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# Contents

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Letter	1
Appendix I Descriptions of TRIS Applications Available as of May 1998	24
Appendix II Comments From the Internal Revenue Service	26
Appendix III Major Contributors to This Report	28
Figures	
Figure 1: Taxpayers Served by TRIS' Applications Compared With Those Served by Customer Service Representatives in Fiscal Year 1997	8
Figure 2: Taxpayer Usage of TRIS' Applications in Fiscal Year 1997	9
Figure 3: Options Taxpayers Hear in Accessing the Transcript Interactive Application	12

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## Abbreviations

ICP	Integrated Case Processing
IRS	Internal Revenue Service
PIN	personal identification number
SSN	Social Security number
TRIS	Telephone Routing Interactive System

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# Descriptions of TRIS Applications Available as of May 1998

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1. Location provides the taxpayer with the IRS mailing addresses for the most common tax forms and installment agreement documents. The taxpayer inputs information, such as the type of form, whether payment will be included with the form, and the taxpayer's home address zip code.
2. Refund Inquiry provides the taxpayer information on the status of a refund, including whether the return has been processed and when the check will be mailed. The caller inputs the Social Security number (SSN) for the return, the amount of the refund, and the taxpayer's filing status.
3. Voice Balance Due allows a taxpayer to obtain a payment extension or set up an installment agreement if the taxpayer agrees with an outstanding balance but is unable to pay in full. The taxpayer inputs the SSN number for the return, a six-digit number printed on the taxpayer's bill, and other information. The application provides information on how to submit payments and initiates a confirmation letter covering the terms and conditions of the payment plan.
4. Voice Processing Personal Identification Number allows taxpayers to establish their identity prior to accessing account information through other interactive applications. It provides taxpayers an automated method to establish a personal identification number (PIN) when using these applications or to change an existing PIN in order to restrict access to account information.
5. Payoff provides the taxpayer with the amount required to pay off a balance due on an account. The taxpayer enters information including the PIN and the SSN for the account.
6. Transcript allows the taxpayer to request a transcript of a return or account for any tax year. It also allows taxpayers to request Form 4506 to obtain an actual copy of a tax return. The taxpayer enters such information as the SSN for the return.
7. View Debit allows the taxpayer to get information about the history of the taxpayer's account, including debits posted to the account. For example, it helps explain balance due notices taxpayers receive, including information about how penalties and interest were calculated, if applicable. The taxpayer must have a PIN to use this application.
8. View Credit allows the taxpayer to get information about credits posted to the taxpayer's account. For example, it helps taxpayers confirm that

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**Appendix I**  
**Descriptions of TRIS Applications Available**  
**as of May 1998**

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payments have been received or determine the amount of estimated tax payments. Taxpayers can search their accounts for a specific payment or request a list of the last six payments. Taxpayers must have a PIN to use this application.

9. Refund Trace enables eligible callers to initiate actions to resolve problems with lost, stolen, or mutilated refund checks or to order a copy of their cancelled refund check.

# Comments From the Internal Revenue Service



COMMISSIONER

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

June 17, 1998

Ms. Lynda D. Willis  
Director, Tax Policy and Administration Issues  
United States General Accounting Office  
441 G Street, NW  
Washington, DC 20548

Dear Ms. Willis:

I appreciate this opportunity to respond to your draft report entitled "Tax Administration: IRS' Telephone Routing Interactive System (TRIS) May Not Meet Expectations." I agree with the report's recommendation that we reassess TRIS and its role in improving taxpayer service. I would like to provide you an update of current TRIS activities toward achieving your recommendations as well as outline how we plan to improve TRIS and additional interactive applications in the future.

#### **Update of TRIS and related activities.**

While there is certainly more we can do to improve service, I believe we are beginning to see significant benefits since the nationwide roll-out of TRIS, including:

*Exceeding FY 1998 projections of automated calls.* We have already exceeded projections of doubling the number of calls answered once operations expanded from 10 to 25 call sites. In FY 1997, three million phone calls were automated; thus far in FY 1998, 6.7 million calls were automated.

*Offering significant improvements over TeleTax.* TRIS can access accounts nationwide and route calls to a customer service representative, providing far more functionality than -- and ultimately replacing -- TeleTax.

*Surveying callers.* A survey of callers who successfully completed calls using TRIS indicates that over 80 percent consider the system easy to use.

*Addressing taxpayer's needs.* TRIS continues to evolve as we reevaluate the impact of policies on taxpayers. We recently raised the dollar ceiling for the Voice Balance Due application from \$10,000 to \$15,000. And we standardized the use of "selective expanded access" nationwide to limit the automated services available during peak periods, thereby decreasing waiting time in queue.

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**Appendix II  
Comments From the Internal Revenue  
Service**

**Next Steps**

Your report recommended that “the Commissioner of IRS devise a plan to reassess TRIS and its role in improving taxpayer service. The plan should include (1) an analysis of the services taxpayers need, want, and will use; (2) an assessment of why taxpayers are not using the existing TRIS applications; and (3) a reevaluation of the costs and benefits of TRIS.” You also recommend that IRS delay development and implementation of any additional interactive applications until the reassessment is completed.

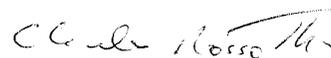
We are already undertaking efforts to address these recommendations and improve TRIS in both the near term and long term. Short term activities include:

- Reviewing procedures established for various interactive applications to adjust them to benefit taxpayers;
- Researching why callers default or hang up;
- Working with a contractor to define problems with TRIS, identify menus and scripts that may be limiting caller use, and making TRIS a more accepted product;
- Expanding marketing efforts;
- Improving scripts and enhancing applications;
- Reevaluating costs and benefits of TRIS.

In the long term, the Modernization Concept I proposed in January will enable us to improve not only TRIS but all our taxpayer-related products and practices. Step one is to organize around similar groups of taxpayers; step two is to revamp our business practices to address the needs of these specific groups; and step three is to build the technology to support these business practices. All future information systems projects – including automated self-service applications like TRIS – are encompassed in the Modernization Blueprint, which will be implemented in conjunction with the Modernization Concept.

I appreciate the insights and balanced recommendations of your report, and we will provide a status report to you on our efforts to improve TRIS by December 31, 1998. Please call me at 202-622-9511 if you have any questions or additional suggestions.

Sincerely,



Charles O. Rossotti

# Major Contributors to This Report

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**General Government  
Division, Washington  
D.C.**

Robert L. Giusti, Evaluator-in-Charge

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**Atlanta Field Office**

A. Carl Harris, Assistant Director  
Ronald W. Jones, Senior Evaluator  
Jyoti Gupta, Evaluator  
Kim Rogers, Evaluator

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