United States General Accounting Office

GAO

Testimony

For Release
Expected at
9:30 a.m. EST
Thursday
March 16, 1989

IRS' Progress in Implementing Its Electronic Filing and Communications Replacement Systems

Statement of
James R. Watts, Associate Director
Information Management and Technology
Division

Before the
Subcommittee on Oversight
Committee on Ways and Means
House of Representatives

Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss IRS' acquisition and use of computer systems. I will focus my comments on the development of IRS' electronic filing system and the agency's progress in installing new communications processors. On the basis of our ongoing work in these areas, we found that:

-- The electronic filing system is still experiencing some of the same problems that troubled it during the 1988 season. IRS needs to clearly specify the requirements for the nationwide system and determine whether its proposed approach is the best available alternative.

-- The communications processors were fully installed as of December 1988 and are working reasonably well.

My testimony is based largely on work that is still in process. As a result, these observations are preliminary.

ELECTRONIC FILING

Through IRS' electronic filing system, individual tax returns can now be filed using computers instead of the traditional paper returns. The agency expects that electronically filed returns will be less costly to process and store than paper returns, and

that the system will enable IRS to provide faster refunds to individuals. However, we are not aware of any approved studies that quantify these benefits. On the basis of its limited experience with electronic filing over the last 3 years, IRS projects that of the approximately 110 million returns anticipated in 1989, about 2.2 million returns will be filed electronically. By 1997, the agency projects that over 36 million of an anticipated total of 123 million returns will be filed electronically. Through fiscal year 1988, IRS had spent about $13 million developing and operating an electronic filing system and plans to spend another $163 million on development and operations through 1999.

IRS developed a pilot system in 1986 to test the technical feasibility and public acceptance of electronic filing. The goal was to test the system in a small geographical area and, if the test was successful, expand the availability of electronic filing to increasingly large numbers of taxpayers. On the basis of the preliminary results of this test, IRS began developing an electronic filing system in 1986 that would serve as the basis for meeting the agency's long-range needs for nationwide electronic filing. IRS expected to field the new system in 1988. A key part of its strategy was the acquisition of mainframe computers that would be used for processing the electronic returns.

IRS was forced to abandon its development approach for the nationwide system in November 1986 when its strategy for acquiring

the necessary mainframe computers was disapproved by the Department of the Treasury. The acquisition strategy involved using an existing contract to purchase the computers, i.e., the Communications Replacement System contract. Treasury disapproved this strategy for two reasons: (1) the existing contract was in danger of going into default, and (2) purchasing computers for electronic filing was beyond the scope of the existing contract. While we were told that no documentation for this decision exists, both Treasury and IRS officials substantiated this information. Because the strategy was disapproved, IRS estimated that it would take until 1990 to compete a new contract and begin fielding a nationwide system.

According to the Assistant Commissioner for Information Systems Development, IRS chose to press forward with an interim system for use in the 1988 and 1989 seasons because it wished to extend the benefits of electronic filing as soon as possible. IRS chose this interim approach knowing that it would result in having to replace software that was not designed to handle the much larger volume of returns expected when electronic filing is expanded nationwide. This software cost about $2 million. IRS was also aware that the prime contractor believed the system ran a high risk of failure during the 1988 tax season because its development schedule left too little time to adequately design and test the system. Despite these facts, the agency decided to accept the

risks of pressing ahead and, in 1988, expanded the availability of electronic filing from 7 metropolitan areas to 16 IRS districts.

The interim system was not completely successful during the 1988 filing season. While the system was able to receive over 580,000 electronic returns, a subsystem used to correct errors did not operate properly. Specifically, an electronic replica or image of the returns could not be properly stored and retrieved as fast and reliably as needed for processing because of defective software. As a result, stop-gap manual operations were necessary to correct errors in returns. IRS tax examiners had to print out paper copies of returns, make written notations of the corrections they made, and store these paper records until the defective software was fixed. This also required all electronic returns--those without errors as well as those with errors--to be reprocessed in 1989 so they could be properly stored and retrieved electronically.

At the end of the 1988 season, IRS decided to replace the defective software prior to the 1989 season because the agency believed the software's design was not usable. The defective software, which cost about $2 million to develop, is being replaced with new software costing about $2 million. According to electronic filing project office officials, the agency's failure to clearly define system performance requirements or allow sufficient time to determine the acceptability of contract

deliverables contributed to its inability to resolve the problems with the defective software.

Even though a major component of the 1988 interim system was flawed, IRS significantly expanded the use of electronic filing for the 1989 season from 16 to 48 of its 63 districts, including most major metropolitan areas, using a modified version of the interim system. However, service center officials told us that they are not fully satisfied with its performance. For example, at the start of the 1989 filing season, the $2 million replacement system was not ready for use. Because this system was not ready, IRS had to print paper copies of thousands of electronic returns that contained errors so they could be corrected and refunds issued to taxpayers. In mid-February, although the system was still incomplete, IRS decided to install the portions of the system that were needed for processing electronic returns. By using these portions of the system, IRS avoided having to continue printing out copies of all returns having errors. According to service center officials, the replacement software is still not complete nor fully tested and will not be until about mid-April, the end of the filing season.

An unresolved issue that has existed since the program's inception is the need for paperwork to accompany electronic returns. For each electronic return IRS accepts, the originating tax preparer must mail IRS a form with the taxpayer's signature and

W-2. Service center staff review the forms to ensure that they have a signature and W-2 for each electronic return. Service center officials told us this is becoming a task of major proportions. IRS is currently employing 47 staff to receive, review, and file these forms, not including the data entry staff who transcribe information from these forms into the computer.

IRS is now facing a critical decision concerning the system it will use to meet the agency's long-range goals for electronic filing. After the 1988 filing season, the electronic filing project office abandoned its earlier plans to develop a new nationwide system and instead proposed investing about $20 million to expand and modify the current system.

To date, however, IRS has not demonstrated through either analysis or experience that the interim system will be able to meet its long-range needs. Before committing to using a modified version of the interim system for nationwide electronic filing, IRS needs to clearly spell out its needs and evaluate the costs and benefits and technical feasibility of alternative approaches. Factors that need to be addressed include:

-- Assessing whether the current system will meet nationwide needs, since the current system was not justified on the basis of an analysis of such needs. It was originally

developed solely as an interim system until a nationwide system could be developed.

-- Deciding how to minimize the burgeoning, paper-intensive nature of the current system. Transmitting signatures and W-2s electronically could significantly affect system design and costs.

-- Deciding how the current system will accommodate the processing of tax due returns, presently planned for 1990. Since the current system is designed to handle refund returns, it will have to be modified to handle tax payments through electronic transfers, credit cards, or other means.

We discussed the need for IRS to define requirements and assess alternatives with officials of the Department of the Treasury, and they agreed with our position. In January 1989, Treasury directed IRS to perform the analysis necessary to identify the best approach. Project officials have stated that this analysis should be provided to Treasury by the end of March 1989.

COMMUNICATIONS REPLACEMENT SYSTEM

In February 1986, IRS awarded a contract to replace its existing data communication processing system and obsolete computer

terminals with the new $156 million Communications Replacement System. The system consists of computer terminals, software, and communication processors. The latter are computers through which IRS employees, using the computer terminals, access information from other larger computers to correct errors in tax returns and answer taxpayer inquiries.

IRS initiated the project in 1983 to replace its old processors, which had begun to experience periods of downtime and were operating at or near the limit of their capacity. The project encountered several delays caused primarily by (1) the need to re-award the contract after an original award was overturned as a result of bid protests, and (2) the need to redirect the contractor's efforts after it had failed to produce a workable system in the time required by the contract. By November 1987, the contractor had delivered a system that met most testing requirements. IRS decided to install this system because it believed the unmet requirements would not adversely affect the processing of taxpayer data. On the basis of the success of its initial installations at the Fresno and Austin centers, IRS decided to install the system nationwide. The system is now operational in all 10 service centers and is working reasonably well.

Although the system is operational, the contractor has yet to (1) deliver acceptable systems documentation, and (2) correct some software problems that do not affect the processing of returns.

IRS is negotiating with the contractor to establish a schedule for completing these requirements. Until the contractor completes these actions, IRS is withholding payments due the contractor for software development and documentation and for the computer equipment and software installed at IRS' Martinsburg Computing Center. As of the end of February 1989, these withheld payments had accumulated to $4.5 million. We believe IRS is acting prudently in withholding these payments.

- - - - -

This concludes my prepared statement. I will be pleased to respond to any questions.