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

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Chief Inspector

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MEMORANDUM FOR CHIEF INSPECTOR

FROM: David W. Junkins
Director, Office of Information Resources Management IS:IR

SUBJECT: Draft Internal Audit Report - Review of the Service's Efforts to Prepare Its Tier II Infrastructure for the Century Date Change (#980046), dated October 8, 1998

The Director, Year 2000 Program and the Assistant Commissioner, National Operations, in the Information Systems organization, have reviewed the subject draft Internal Audit report. The management response is attached. Please note that all but one of the eleven corrective actions have been completed.

If you have any questions, please call me on (202) 283-4060, or have a member of your staff call Donna Downing on (202) 283-4159.

Attachment

cc: Assistant Chief Inspector (Internal Audit)
Deputy Director, Office of Audit Projects

Response to Draft Internal Audit Report-
Review of the Service's Efforts to Prepare its Tier II Infrastructure
for the Century Date Change (#980046)

Recommendation # 1

We recommend the Tier II Program Office develop an overall implementation plan for the Tier II conversion effort. The implementation plan should:

A) Establish interim milestone dates for those activities that must be completed to meet the January 1999, target date.

B) Document the method of monitoring implementation.

Assessment of Cause

Internal Audit believes that the Service's overall management of the century date change effort and the Tier II infrastructure conversion can be improved.

Corrective Action # 1

The Integrated Master Schedule (IMS) serves as the implementation plan and tracks key milestone dates for 27 mission critical/key Tier II Project Office projects. The IMS milestone dates were developed based on a predefined and coordinated set of criteria and definitions for these key milestones. The Tier II Program Office tracks key milestone dates for 19 other (non-key) projects via the Tier II Program Office work breakdown structure.

Further, for **all** Tier II systems, a site-coordination process has been defined and initiated by the Century Date Change (CDC) Project Office. This process identifies a more precise subset of milestone dates (for production platform upgrades and application installations, milestones 4 and 5) for **all** projects at **all** sites. The Tier II Program Management Plan was not developed further.

In addition, the CDC weekly progress report has begun to monitor four key milestones for all Tier II systems. A memorandum to all system owners explaining this tracking is being issued.

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Implementation Date for Corrective Action # 1

Completed: 10/23/98 Proposed: _____

Responsible Official for Corrective Action # 1

Chief Information Officer IS
Deputy Chief Information Officer (Systems) IS
Assistant Commissioner for Systems Development IS:S
Director, Systems Support Division IS:S:SS

Response to Draft Internal Audit Report-
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Recommendation # 2

We recommend that a testing plan be established as a subset of the overall implementation plan. This plan should address:

(1) Milestone dates for required tasks.
(2) Responsibilities for completing testing tasks.
(3) A method to ensure all problems encountered in testing are communicated to a central control point and addressed.
(4) A method of monitoring the progress of the testing effort.

Assessment of Cause

Internal Audit believed that as vendors made Tier II system components available, the compatibility and interoperability testing and the application testing in the field **could** have been conducted simultaneously in a production environment. This would dramatically increase the risk that problems identified could interrupt current Service processing, increase the difficulty of identifying the origin of problems, and delay overall conversion.

Corrective Action # 2

(1) As stated in the draft report, the Tier II Program Office developed a detailed testing schedule for all mission critical Tier II systems. The schedule established interim milestones for completion of testing and the transmittal of the system into production.

(2) Currently, the Tier II Test Dashboard lists the organization responsible for the test environment, the unit test and the integration test.

(3) The Y2K Test Program Process document requires that a dedicated platform be established as a test environment. Additional guidelines include notifying the Tier II Support Center if an application owner has difficulty in identifying a platform for Y2K testing or if they run out of resources to meet new capacity requirements and retain adequate application performance. Setting up a dedicated centralized point for reviewing and evaluating **all** conversion problems encountered in testing (presumably by all projects/applications) is not warranted because testing problems will likely be widely variable in both impact and complexity. Only those test problems that affect the

timely completion of the key milestone dates should be candidates for any such centralized review authority.

(4) In addition, progress on each system will be tracked weekly via the CDC IS Progress Report.

Implementation Date for Corrective Action # 2

Completed: 10/23/98 Proposed: _____

Responsible Official for Corrective Action # 2

Chief Information Officer IS
Deputy Chief Information Officer (Systems) IS
Assistant Commissioner for Systems Development IS:S
Director, Systems Support Division IS:S:SS

Response to Draft Internal Audit Report-
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Recommendation # 3

We recommend that the CDC Project Office:

Designate a central executive contact point in each field and customer organization to be responsible and accountable for coordinating the communication and monitoring of all Y2K information and action requests for that organization.

Assessment of Cause

The May 8, 1998, response to Internal Audit's memorandum focused solely from a Tier II perspective. Internal Audit believes additional corrective action is necessary to improve coordination of the entire century date change effort.

Corrective Action # 3

The CDC Project Office has established executive contacts for the regions, service centers, all IS Directors and all N.O. Chief organizations.

Memoranda and weekly progress reports issued through the CDC Project Office are listed and accessible on the Y2K web page. Response dates are tracked using the weekly progress report distributed through the Y2K Service Center Executive and the Y2K Regional coordinators.

Implementation Date for Corrective Action # 3

Completed: 10/23/98 Proposed: _____

Responsible Official for Corrective Action # 3

Chief Information Officer IS
Deputy Chief Information Officer (Systems) IS
Director, Century Date Change Project Office IS:CD

Response to Draft Internal Audit Report-
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Recommendation # 4

We recommend that the CDC Project Office:

Coordinate requests issued to the field and customer organizations by establishing a communications coordinator to track requests made to these organizations for all Y2K initiatives and their response dates.

Assessment of Cause

The May 8, 1998, response to the Internal Audit memorandum focused solely from a Tier II perspective. Internal Audit believes additional corrective action is necessary to improve coordination of the entire CDC effort.

Corrective Action # 4

Memoranda issued through the CDC Project Office are listed and accessible on the Y2K web page. In addition, response dates are tracked using the weekly progress report distributed through the Y2K Service Center Executive and the Y2K Regional Coordinator. The progress report is reviewed every Monday at the IS organization teleconference and at the Field and Customer organizations teleconference.

Implementation Date for Corrective Action # 4

Completed: 10/23/98 Proposed: _____

Responsible Official for Corrective Action # 4

Chief Information Officer IS
Deputy Chief Information Officer (Systems) IS
Director, Century Date Change Project Office IS:CD

Response to Draft Internal Audit Report-
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Recommendation # 5

We recommend the CDC Project Office coordinate with the INOMS group at headquarters to ensure consistent direction is given to the field and customer organizations on which specific items are to be recorded and how they should be recorded on INOMS.

Assessment of Cause

The INOMS system needed vast improvements to be a serviceable inventory for Y2K. These improvements need to be made at a pace previously untried at the IRS. However, there is a huge amount of very complex work left to be done and time is critically short, so some confusion on the part of some offices is to be expected.

Corrective Action # 5

A formal weekly meeting is attended by the CDC Project Office and appropriate INOMS management. The ADP Property Management Office, IS:O:O:TA, continues to work very closely with the CDC Project Office to provide consistent direction to system users and to ensure that data for all tiers and categories are recorded correctly in INOMS. Issues are discussed and decisions agreed upon during scheduled meetings with the Inventory Steering Committee and are made available via the Y2K web page.

Implementation Date for Corrective Action # 5

Completed: 10/23/98 Proposed: _____

Responsible Official for Corrective Action # 5

Chief Information Officer IS
Deputy Chief Information Officer (Operations) IS
Assistant Commissioner for National Operations IS:O
Director, Telecommunications and Operations IS:O:O

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Recommendation # 6

The CDC Project Office should provide the field with immediate notification of changes in direction resulting from this coordination via e-mail, VMS, or conference call accompanied by a memorandum to the National Y2K executives, the heads of office and the Y2K coordinators.

Assessment of Cause

Certain CDC and Tier II Project Office requirements are not reflected in the INOMS handbook.

Corrective Action # 6

The CDC Project Office shares information through a variety of channels the key ones being the progress report and the weekly progress meeting. As with any very large initiative, (e.g., readying the IRS for a filing season) many National Office organizations communicate with each other and the field with each line organization giving direction in their area of authority and expertise. The CDC Project Office will continue to track progress and emphasize key information through its weekly progress meetings.

Implementation Date for Corrective Action # 6

Completed: 10/23/98 Proposed: _____

Responsible Official for Corrective Action # 6

Chief Information Officer IS
Deputy Chief Information Officer (Systems) IS
Director, Century Date Change Project Office IS:CD

Response to Draft Internal Audit Report-
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Recommendation # 7

We recommend that the CIO utilize assistance from a vendor to validate the Tier II inventory on all mission-critical Tier II systems in all applicable sites.

Assessment of Cause

The accuracy and completeness of the Tier II hardware and COTS software inventories need to be improved.

Corrective Action # 7

A vendor has been tasked to develop recommendations to validate the inventory, in addition to facilitate and track the progress of the corrective actions. They participate as a partner of the Inventory Steering Committee. Meetings and biweekly conference calls are held to discuss and update the work breakdown structure (WBS). The WBS indicates 1) the tasks needed to validate the inventory; 2) the organization responsible for completing the task; and 3) the due date.

Implementation Date for Corrective Action # 7

Completed: 09/28/98 Proposed: _____

Responsible Official for Corrective Action # 7

Chief Information Officer IS
Deputy Chief Information Officer (Operations) IS
Assistant Commissioner for National Operations IS:O
Director, Telecommunications and Operations IS:O:O

Response to Draft Internal Audit Report-
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Recommendation # 8

To address the remaining systems, we recommend that the CIO:

Communicate our findings to all District and Service Center Directors and require them to re-certify their INOMS inventory. The re-certification should include a statement that the District and Service Center Directors have read and understand the findings identified by Internal Audit and the importance of an accurate inventory system.

Assessment of Cause

The accuracy and completeness of the Tier II hardware and COTS software inventories need to be improved.

Corrective Action # 8

The District and Service Center Directors re-certification will include a statement that 1) their INOMS inventory is accurate and complete, 2) that they have read and understand the findings identified by Internal Audit (e.g., the accuracy and completeness of the Tier II hardware and COTS software inventories need to be improved; Tier II platform inventory is complete but inaccurate; Tier II COTS inventory is incomplete and inaccurate) and 3) they understand the importance of an accurate inventory system.

Implementation Date for Corrective Action # 8

Completed: _____ Proposed: 03/01/99

Responsible Official for Corrective Action # 8

Chief Information Officer IS
Deputy Chief Information Officer (Operations) IS
Assistant Commissioner for National Operations IS:O
Director, Telecommunications and Operations IS:O:O

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Recommendation # 9

In addition, we recommend that:

FY 1999 District and Service Center Directors' expectations specifically address the requirement to maintain an accurate INOMS inventory.

Assessment of Cause

We agree with this recommendation.

Corrective Action # 9

The Century Date Change Project Office provided the suggested verbiage which was included in the District and Service Center Directors' expectations.

Implementation Date for Corrective Action # 9

Completed: 10/23/98 Proposed: _____

Responsible Official for Corrective Action # 9

Chief Information Officer IS
Deputy Chief Information Officer (Systems) IS
Director, Century Date Change Project Office IS:CD

Response to Draft Internal Audit Report-
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Recommendation # 10

National and local purchasing functions be required to load accurate INOMS data as the item is purchased. This data should include all basic information including product name, manufacturer, model, as well as warranty and maintenance information.

The receiving location should then check the INOMS record for accuracy when the item is received.

Assessment of Cause

The accuracy and completeness of the Tier II hardware and COTS software inventories need to be improved.

Corrective Action # 10

The Director, Telecommunications and Operations Division has issued a memorandum to all projects who procure ADP property. This memorandum requires the projects to provide to all receiving functions a key information template for their inventory records. The template includes the product name, the manufacturer, model, as well as warranty and maintenance information. This approach differs from your recommendation in that the site remains responsible for input to INOMS. However, the national and local organizations conducting the purchase are responsible for gathering and disseminating the pertinent information.

Implementation Date for Corrective Action # 10

Completed: 10/14/98 Proposed: _____

Responsible Official for Corrective Action # 10

Chief Information Officer IS
Deputy Chief Information Officer (Operations) IS
Assistant Commissioner for National Operations IS:O
Director, Telecommunications and Operations IS:O:O

Response to Draft Internal Audit Report-
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Recommendation # 11

We recommend the CIO ensure that detailed contingency plans are developed to account for delays in vendor delivery and field office upgrades. The contingency plans should include:

-An identification of each product that has not yet been made available by the vendor.
-An action plan to obtain the compliant vendor product and an estimated date this product will be made available, or the identification of a compliant replacement product.
-An assessment of the impact of the vendor delay or the upgrade delay on the Tier II conversion effort.

In addition, a process should be established to monitor the progress of items covered by the contingency plan to ensure the action plans are accurately addressing each condition and are being carried out timely.

Assessment of Cause

At the time Internal Audit was assessing the Y2K effort, **potential** vendor delays and concerns about the availability of replacement platforms and compliant versions of software **might** have been an issue. Also at the time of the audit, the infrastructure upgrade process of the Tier II components (DBMS and OS) had not yet started by most of the projects. Therefore, the INOMS inventory would not reflect the new (upgraded) COTS products.

Corrective Action # 11

Resolution of all of the issues regarding major COTS products has resulted in the procurement of compliant replacement platforms for Sequent NUMA-Q machines and the availability of a compliant version of Informix and other operating systems software. Investigation of all of the "other COTS" products (non-DBMS or OS) identified on INOMS resulted in the Service having access to compliant versions of software. Limited usage COTS products have been identified and the owners are determining whether they need upgraded/compliant versions or replacement products. As of the date of this response, there are no identified vendor delays.

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Implementation Date for Corrective Action # 11

Completed: 11/10/98 Proposed: _____

Responsible Official for Corrective Action # 11

Chief Information Officer IS
Deputy Chief Information Officer (Systems) IS
Assistant Commissioner for Systems Development IS:S
Director, Systems Support Division IS:S:SS