CHIEF INFORMATION OFFICER

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

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MEMORANDUM FOR TREASURY INSPECTOR GENERAL FOR TAX ADMINISTRATION

FROM: Paul J. Cosgrave
Chief Information Officer

SUBJECT: Additional Actions are Needed to Strengthen the Development and Enforcement of the Enterprise Architecture (Audit No. 200020019)

Thank you for the opportunity to respond to your draft audit report. The Business Systems Modernization (BSM) program represents our next step in modernizing the IRS through process reengineering and introduction of new technology that will strengthen IRS performance. It is a massive effort and not one without risks. However, we are managing the risks by adhering to rigorous program management procedures, implementing strong oversight of the program, and revising the IRS Enterprise Architecture (EA). The enterprise architecture, guided by the enterprise vision, gives a high-level, complete picture of how the future IRS business systems will operate and how they will fit together. It also provides those developing the new systems with a clear picture of the overall business objectives and a clear set of technical standards.

In May 2000, the IRS launched the project called Blueprint 2000 to update the IRS Enterprise Architecture to reflect the changes in our organization, goals, and available technology. This revised Blueprint lays the foundation for the near-term projects. We plan to complete this first release of the EA during November 2000.

The findings in your report highlight the need to strengthen processes to ensure the EA products meet IRS needs and that the systems development projects follow the architecture guidance. We are following a sound development methodology to successfully develop and implement IRS modernized systems. The Blueprint 2000 Project Teams are following the draft ***Enterprise Architecture Supplement*** to the Enterprise Life Cycle (ELC) to ensure the architecture products meet the business needs of IRS. In conjunction with other ELC processes, IRS is taking aggressive steps to validate architecture products, enforce architecture standards, and conduct a change control process for the enterprise architecture. We will include the ***Enterprise Architecture Supplement*** in the next revision of the IRS ELC scheduled for December 2000. While methodology provides a useful discipline, it does not provide a mechanical textbook routine for producing such an important product as a blueprint for the IRS systems architecture. Through building and periodically refining the architecture and developing projects, EA processes will fully mature over time. In some cases, decisions

made at the enterprise level may not be consistent with initially conceived project direction. However, we are implementing processes to ensure projects are guided and constrained by the enterprise architecture and standards and to ensure IRS business systems are fully integrated.

Your individual recommendations are addressed in the attachment. If you have any questions, please call Bert Concklin, Director, Business Systems Modernization, at (202) 283-5750.

Attachment

cc: Director, Legislative Affairs Division
Director, Communications Division

Business Systems Modernization Management Response (September 2000)
Additional Actions are Needed to Strengthen Development and Enforcement of the Enterprise Architecture (Audit No. 200020019)

I. The Enterprise Life Cycle Does Not Contain the Detailed Processes and Activities Necessary to Develop the Enterprise Architecture

Recommendation 1: To ensure the critical processes, activities, and work products necessary for the enterprise architecture are identified and developed, the Chief Information Officer (CIO) should develop and implement a plan to expedite the completion of the Enterprise Architecture supplement to the Enterprise Life Cycle (ELC). This part of the ELC is necessary to provide all of the processes, products, techniques and procedures that are needed to establish and update the IRS' enterprise architecture, and to provide needed guidance to ongoing systems development projects.

Corrective Action:

The IRS will:

- Augment the ELC with the Enterprise Architecture Supplement. This supplement will include the critical processes, activities, and work products necessary to establish and update the enterprise architecture and will provide the needed guidance to ongoing systems development projects.

Implementation Date: December 2000

Responsible Official: Business Systems Modernization Executive

Business Systems Modernization Management Response (September 2000)
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II. A Validation Process Has Not Been Established to Ensure That Architecture Products Meet the Internal Revenue Service's Needs

Recommendation 2: To establish a process to ensure architecture deliverables meet the IRS' needs, the CIO should take actions to implement processes necessary to ensure the architecture deliverables received from the PRIME contractor are thoroughly evaluated by the AE Division staff. These validation controls should be established prior to the delivery of the Enterprise Architecture.

Corrective Action:

The IRS will:

- Establish validation procedures to ensure the architecture deliverables are thoroughly evaluated.

Implementation Date: December 2000

Responsible Official: Business Systems Modernization Executive

Recommendation 3: Strengthen the deliverable acceptance process to ensure that payment for an architecture deliverable is not initiated until the Director of AE approves that the deliverable meets the IRS' needs.

Corrective Action:

- As part of the Enterprise Architecture Supplement, the IRS will strengthen the deliverable acceptance process, as defined in the ELC, to include approval from the Director of the Architectural Engineering Division before accepting an architecture deliverable.

Implementation Date: December 2000

Responsible Official: Business Systems Modernization Executive

III. Processes Are Needed to Ensure That Architecture Requirements of Critical Modernization Projects Are Obtained and Addressed

Recommendation 4: To ensure that system modernization project teams understand and agree to enterprise architecture standards, the CIO should take actions to establish a process to obtain, fully document, and address the needs of the modernization projects in the development of the enterprise architecture products. This process should require technical representatives from each project team to participate in meetings as architecture deliverables are developed that impact the design of their projects.

Corrective Action: No separate corrective action required. This is included in corrective action number 1.

IV. A Change Control Board Is Needed to Review and Approve Changes to the Modernization Blueprint

Recommendation 5: To ensure that changes to the enterprise architecture are approved and the Modernization Blueprint properly updated, the CIO should establish a central Change Control Board to approve enterprise architecture changes to the Modernization Blueprint. The results of each Change Control Board review should be documented and include the results and conclusions reached by the Board.

Corrective Action:

The IRS will:

- Establish a change control board to approve enterprise architectural changes to the Blueprint and document roles, responsibilities, and processes in the Configuration Management Section of the ELC.

Implementation Date: December 2000

Responsible Official: Business Systems Modernization Executive

Business Systems Modernization Management Response (September 2000)
Additional Actions are Needed to Strengthen Development and Enforcement of the Enterprise Architecture (Audit No. 200020019)

V. Enforcement and Waiver Processes Are Needed to Ensure Compliance with Architecture Guidance

Recommendation 6: To ensure systems modernization project teams comply with established enterprise architecture standards, the CIO should establish an enforcement process to ensure compliance with the enterprise architecture. This control should involve periodic reviews of project system designs. The results and conclusions of these reviews should be documented and actions should be taken to correct unauthorized departures from the Blueprint.

Corrective Action:

The IRS will:

- Implement ELC reviews in the IRS and enforce Configuration Control Board and Engineering Review Board to compliance with the Enterprise Architecture included in the architecture supplement to the ELC.

Implementation Date: December 2000

Responsible Official: Business Systems Modernization Executive

Recommendation 7: Establish a waiver process to approve minor deviations from the established architecture standards. This process should allow projects the ability to request guidance and approval to deviate from the Blueprint architecture.

Corrective Action:

The IRS will:

- Establish a waiver process to approve minor deviations from the established architectural standards in the architecture supplement of the ELC.

Implementation Date: December 2000

Responsible Official: Business Systems Modernization Executive