Audit Report

OIG-11-036

AUDIT REPORT

INFORMATION TECHNOLOGY: Treasury is Generally in Compliance with Executive Order 13103

November 17, 2010

Office of Inspector General

Department of the Treasury

Contents

Abbreviations

CIO	Chief Information Officer
EO	Executive Order
OCIO	Office of the Chief Information Officer
OIG	Treasury Office of Inspector General
TD	Treasury Directive

OIG

The Department of the Treasury
Office of Inspector General

Audit
Report

November 17, 2010

Diane Litman
Acting Deputy Assistant Secretary for Information Systems
   and Chief Information Officer
Department of the Treasury

The objective of this audit was to determine whether the
Department of the Treasury (Treasury) is in compliance with
Executive Order (EO) 13103, Computer Software Piracy, which
directs executive agencies to work diligently to prevent and combat
computer software piracy and to ensure that their policies,
procedures, and practices are adequate and fully implement the EO.
We performed this audit at the request of the Office of the Chief
Information Officer (OCIO).

To accomplish our objective, we examined Treasury's relevant
policy and procedures and interviewed Treasury officials about
promoting legal software use and proper software management.
We conducted our fieldwork in Washington, D.C., from May 2010
through August 2010.

We performed this audit in accordance with generally accepted
government auditing standards. Those standards require that we
plan and perform the audit to obtain sufficient and appropriate
evidence to provide a reasonable basis for our findings and
conclusions based on our audit objectives. We believe that the
evidence obtained provides a reasonable basis for our findings and
conclusions based on our audit objectives.

Results in Brief

We determined that Treasury is generally in compliance with EO 13103, but Treasury's policy and procedures could be improved to ensure compliance. Specifically, we found the following:

1. Treasury Directive (TD) 85-02, Software Piracy Policy, needs some clarification.
2. The Treasury Chief Information Officer (CIO) needs to create and manage an enterprise list of authorized software and maintain an accurate inventory of installed software.
3. The Treasury CIO needs department-wide procedures for auditing and tracking software licenses.

We are making six recommendations to the Treasury CIO to address the findings noted above.

In a written response, the Acting Treasury CIO agreed with our findings and recommendations and provided plans for corrective actions that are responsive to the intent of our recommendations (see appendix 1).

Background

EO 13103 was signed by the President on September 30, 1998. It directed, among other things, that

- each executive agency adopt procedures to ensure that it does not acquire, reproduce, distribute, or transmit computer software in violation of applicable copyright laws; and
- each executive agency establish procedures to ensure that it uses only computer software not in violation of applicable copyright laws.

OCIO provides leadership to Treasury and its bureaus in all areas of information and technology management. It has department-wide responsibility for directing and developing Treasury's information technology strategy, managing information technology investments, and leading key technology initiatives.

TD 85-02, approved on May 4, 2010, assigns responsibilities and establishes procedures and practices for Treasury's implementation of EO 13103.

According to the directive, it is the responsibility of the Treasury CIO to:

- develop and implement an enterprise-level plan that ensures that the department is in compliance with the executive order;
- coordinate with Treasury bureaus and offices to perform an initial assessment of existing policies and practices with respect to use and management of computer software;
- maintain an enterprise list of department-authorized and supported software that indicates terms of licenses, authorized number of users, and physical location of software;
- conduct periodic spot audits to ensure that Treasury bureaus and offices are in compliance with software licensing agreements; and
- establish centralized software acquisition.

Additionally, the heads of bureaus and offices are assigned the responsibility to:

- establish clear responsibility and authority within the organization for managing software licenses;
- establish and maintain an accurate software inventory for both newly acquired software and software already purchased;
- conduct and report annually to the OCIO, software inventory reviews which reconcile purchase against the inventory;
- establish and implement procedures for disposal of software in accordance with guidance provided in the software licenses agreement; and
- conduct periodic audit checks (i.e., spot audits) to ensure that their respective bureaus and offices are in compliance with software license agreements.

Findings and Recommendations

Finding 1   TD 85-02, Software Piracy Policy, Needs Some Clarification

We found that TD 85-02's compliance with EO 13103 could be improved. We found two areas in TD 85-02 that need clarification:

- Its definition of authorized software—"software developed, approved, purchased, or licensed by an agency"—is too broad because the definition allows any purchased software to be called authorized.
- It requires reconciliation of bureaus' and offices' software inventories with purchases rather than with software license agreements. The current wording in the directive states that bureaus and offices are to "conduct and report annually, to the Office of the Chief Information Officer, software inventory reviews which reconcile purchases against the inventory."

Additionally, while TD 85-02 requires creation of an authorized software inventory, the policy is lacking adequate guidance in ensuring compliance with this inventory. Specifically:

- It does not contain a statement requiring bureau and office heads to ensure that software in their inventory is on the Treasury list of authorized software.
- It does not require the CIO to perform periodic audit checks to determine if the bureaus and offices are only using software on the Treasury list of authorized software.

EO 13103 requires that each executive agency establish procedures to ensure that it uses only computer software not in violation of applicable copyright laws.

Based on the requirements of TD 85-02, Treasury cannot be sure that only authorized, licensed software is installed on its systems. Accordingly, Treasury could unknowingly be in violation of EO 13103.

Recommendation

1. We recommend that the Treasury CIO revise TD 85-02 as
    follows:

*   Define authorized software more specifically.
*   Require heads of bureaus and offices to ensure that software in
    their inventory is on the Treasury list of authorized software and
    remove it if it is not.
*   Require the CIO to perform periodic audit checks to determine if
    the bureaus and offices are only using software on the Treasury
    list of authorized software.
*   Require the bureaus and offices to reconcile their inventory with
    software license agreements, rather than with software
    purchases.

Management Response

The Acting Treasury CIO agreed with our finding and
recommendation. Treasury will revise TD 85-02 to incorporate the
recommended changes.

OIG Comment

The Acting Treasury CIO's planned actions are responsive to our
recommendation.

Finding 2   **The Treasury CIO Needs to Create and Manage an
Enterprise List of Authorized Software and Maintain an
Accurate Inventory of Installed Software**

During our audit, we found that the Treasury CIO did not have an
enterprise list of authorized software or maintain an inventory of
installed software for Treasury bureaus and offices. Additionally,
Treasury CIO did not have procedures for creating or managing an
enterprise list of authorized software.

As previously noted, EO 13103 requires that each executive
agency establish procedures to ensure that it uses only computer
software not in violation of applicable copyright laws. These

procedures may include preparing agency inventories of the software on its computers and developing and maintaining adequate recordkeeping systems. In addition, TD 85-02 states that the Treasury CIO will maintain "an enterprise list of Department authorized and supported software."

Lack of an enterprise list of authorized software and an inventory of installed software puts Treasury at risk of unknowingly having unauthorized and possibly illegal software on its systems. The presence of such software could result in financial liability for the department and could also introduce vulnerabilities to Treasury systems. During our audit, for example, we examined a list of installed software for one Treasury bureau that included several instances of questionable software.

Recommendations

We recommend that the Treasury CIO do the following:

2. Develop procedures to create and manage a list of approved enterprise authorized software.
3. Maintain an accurate inventory of installed software.
4. Ensure that bureaus remove unauthorized software from Treasury systems.

Management Response

The Acting Treasury CIO agreed with our finding and recommendations. Treasury will develop procedures for managing an enterprise list of approved software, maintain an inventory of installed software, and ensure removal of unauthorized software.

OIG Comment

The Acting Treasury CIO's planned actions are responsive to our recommendations.

Finding 3   **The Treasury CIO Needs Department-wide Procedures for Auditing and Tracking Software Licenses**

TD 85-02 sets forth Treasury's department-wide policy regarding the use of licensed software. The directive states that it is the policy of the department to utilize only "copies of licensed authorized software, purchased by the Department of the Treasury Bureaus and Offices in accordance with the authorized software license terms." However, the department has not yet developed procedures for ensuring this is carried out. For example, among other things, during its monthly data calls to bureaus and offices, the OCIO does not collect or address software licensing information. In addition, Treasury procured a software management tool that performs license tracking and inventory, but has not deployed it Treasury-wide.

TD 85-02 also states that the Treasury CIO is responsible for developing and implementing an enterprise-level plan that ensures that the department is in compliance with EO 13103 and for conducting periodic audit checks to ensure that bureaus and offices are in compliance with software license agreements.

By not having procedures in place to support its policy, Treasury is at risk that it will not be in compliance with software licensing terms.

Recommendations

We recommend that Treasury CIO do the following:

5. Establish and implement department-wide procedures for auditing and tracking software licenses.
6. Complete deployment of the software management tool.

Management Response

The Acting Treasury CIO agreed with our finding and recommendations. Treasury is in the process of deploying a software tool to establish consistent procedures for auditing and tracking software licenses.

OIG Comment

The Acting Treasury CIO's reported actions are responsive to our recommendations.

* * * * * *

I would like to extend my appreciation to the OCIO staff for the cooperation and courtesies extended to my staff during the audit. If you have any questions, please contact me at (202) 927-5171 or Abdirahman Salah, Audit Manager, at (202) 927-5763. Major contributors to this report are listed in appendix 2.
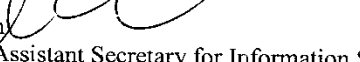
/s/

Tram Jacquelyn Dang
Audit Director

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

NOV - 8 2010

MEMORANDUM FOR TRAM DANG
AUDIT DIRECTOR

FROM: Diane C. Litman
                Acting Deputy Assistant Secretary for Information Systems
                and Chief Information Officer

SUBJECT: Management Response to Draft Report - Information Technology:
                Treasury is Generally in Compliance with Executive Order 13103

Thank you for the opportunity to provide additional information to the discussion draft report on the Department's implementation of Executive Order (EO) 13103 for computer software piracy. We appreciate the thoroughness of the review and my staff appreciates the opportunity to meet with you and your staff at the exit conference held on September 22, 2010, as well as the follow-up meeting held October 21, 2010, to discuss the OIG recommendations relative to Treasury's response.

The report provides three findings and six recommendations. We are in agreement with the recommendations in the report, and our responses to the recommendations are attached. We are pleased to report that we have made progress on our compliance since the exit conference. In the coming months, we will focus on revising our policy directive, developing procedures, implementing activities that have been initiated, and strengthening processes where further improvement can be made. The information in the report will help us establish a baseline to measure our continuing improvement efforts.

My point of contact for this matter is Raghav Vajjhala, Treasury Chief Enterprise Architect. He can be reached by email at Raghav.Vajjhala@do.treas.gov or telephone at 202-622-1758.

Attachment

Attachment

OIG Finding 1: TD 85-02, Software Piracy Policy, Needs Some Clarification

OIG Recommendations:
1. We recommend that the Treasury CIO revise TD 85-02 as follows:
    - Define authorized software more specifically.
    - Require heads of bureaus and offices to ensure that software in their inventory is on the Treasury list of authorized software and remove it if it is not.
    - Require the CIO to perform periodic audit checks to determine if the bureaus and offices are only using software on the Treasury list of authorized software.
    - Require the bureaus and offices to reconcile their inventory with software license agreements, rather than with software purchases.

Management Response:
Concur. The policy directive, TD 85-02 Computer Software Piracy, signed on May 4, 2010, will be revised to include more specificity on authorized software, and specify the responsibilities of the Treasury CIO and heads of bureaus and offices to incorporate the OIG's recommendations to improve the directive.

OIG Finding 2: The Treasury CIO Needs to Create and Manage an Enterprise List of Authorized Software and Maintain an Accurate Inventory of Installed Software

OIG Recommendations:
We recommend that the Treasury CIO do the following:
2. Develop procedures to create and manage a list of approved enterprise authorized software.
3. Maintain an accurate inventory of installed software.
4. Ensure that bureaus remove unauthorized software from Treasury systems.

Management Response:

Concur. The Treasury CIO will develop procedures for managing an enterprise list of approved software, maintain an inventory of installed software, and ensure removal of unauthorized software.

OIG Finding 3: The Treasury CIO Needs Department-wide Procedures for Auditing and Tracking Software Licenses

OIG Recommendations:
We recommend that Treasury CIO do the following:
5. Establish and implement department-wide procedures for auditing and tracking software licenses.
6. Complete deployment of the software management tool.

Management Response:
Concur. The Office of Cyber Security is deploying an asset discovery tool that can be used in anti-piracy efforts. The Office of Cyber Security is working with bureaus and offices to deploy the tool Treasury-wide. Deployment of this tool will allow for Treasury OCIO to establish consistent procedures for auditing and tracking software licenses.

Office of Inspector General, Office of Information Technology Audit

Tram J. Dang, Director, Information Technology Audit
Abdirahman Salah, Current Audit Manager
Gerald Steere, Former Audit Manager
Susan I. Roy, Former Audit Manager
Larissa Klimpel, Information Technology Specialist (Lead)
Jason Brown, Information Technology Specialist
Dan Jensen, Information Technology Specialist

Department of the Treasury

Office of the Chief Information Officer
Office of Accounting and Internal Control
Office of Strategic Planning and Performance Management

Office of Management and Budget

Office of Inspector General Budget Examiner