

**DEPARTMENT OF REVENUE**  
**PROPERTY TAX OVERSIGHT (PTO) SYSTEM**

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**Information Technology Operational Audit**



## HEAD OF THE DEPARTMENT OF REVENUE AND THE EXECUTIVE DIRECTOR

Pursuant to Section 20.21(1), Florida Statutes, the head of the Department of Revenue is the Governor and Cabinet, which includes the Attorney General, Chief Financial Officer, and the Commissioner of Agriculture. Pursuant to Section 20.05(1)(g), Florida Statutes, the Governor and Cabinet is responsible for employing an Executive Director of the Department of Revenue. Marshall Stranburg served as the Executive Director during the audit period.

The audit team leader was Wayne Revell, CISA, and the audit was supervised by Chris Gohlke, CPA, CISA. Please address inquiries regarding this report to Arthur Hart, CPA Audit Manager, by e-mail at [arthart@aud.state.fl.us](mailto:arthart@aud.state.fl.us) or by telephone at (850) 412-2923.

This report and other reports prepared by the Auditor General can be obtained on our Web site at <http://www.myflorida.com/audgen> by telephone at (850) 412-2722; or by mail at G74 Claude Pepper Building, 111 West Madison Street, Tallahassee, Florida 32399-1450.

## DEPARTMENT OF REVENUE

### Property Tax Oversight (PTO) System

#### SUMMARY

The Department of Revenue (Department) is statutorily responsible for the general supervision of the assessment and valuation of real property for ad valorem tax purposes. Article VII, Section 4 of the State Constitution, requires a just valuation of all property for ad valorem taxation, with certain exceptions. County property appraisers complete the valuation of all property within their counties and enter the valuations on the appropriate assessment roll. The Department implemented the Property Tax Oversight (PTO) System to aid in its oversight responsibilities of assessing and valuing property.

Our operational audit focused on evaluating selected information technology (IT) controls surrounding the PTO Oracle application within the PTO System. The PTO Oracle application and associated Oracle database reside on servers owned, housed, and maintained by the Southwood Shared Resource Center (SSRC). Our audit disclosed areas in which enhancements in application controls and operational processes surrounding the PTO Oracle application were needed. The results of our audit are summarized below:

**Finding No. 1:** Access privileges of some users were not appropriate for their job responsibilities and some accounts existed that were no longer needed.

**Finding No. 2:** Authorization documentation of access privileges for some users was missing and, in some instances, inaccurate.

**Finding No. 3:** The Department had not performed a periodic review of PTO Oracle application access privileges.

**Finding No. 4:** Certain PTO System controls related to the logging and monitoring of system activity needed improvement.

**Finding No. 5:** Certain PTO System security controls related to user authentication needed improvement.

#### BACKGROUND

In Florida, local governments are responsible for administering property tax. The Department's PTO Program provides oversight and assistance to local government officials, including county property appraisers, tax collectors, and value adjustment boards. The Department's responsibilities include, but are not limited to, reviewing and approving property tax rolls for each of Florida's 67 counties every year; providing training and certification to property appraisers, tax collectors, and staff members; and promulgating administrative rules and forms necessary to ensure the uniform and equitable administration of property taxes Statewide.

#### FINDINGS AND RECOMMENDATIONS

##### **Finding No. 1: Appropriateness of Access Privileges**

Effective access controls include measures that limit user access privileges to only what is necessary in the performance of assigned job responsibilities and promote an appropriate separation of job duties. Appropriately restricted user access privileges help protect data and IT resources from unauthorized and erroneous disclosure, modification, and destruction. Our review of the appropriateness of user access privileges disclosed that some inappropriate and unnecessary access privileges existed. Specifically:

- Six of nine user accounts with access as of January 6, 2014, to selected functions within the Real Property Subsystem of the PTO Oracle application were granted inappropriate access privileges to functions that were not part of their assigned job responsibilities.
- As of December 26, 2013, for the operating system supporting the PTO Oracle database, eight user accounts belonging to current Department employees were not appropriate for their assigned job responsibilities. Additionally, two user accounts belonging to a former Department employee and a former contractor each retained access privileges subsequent to their termination. In response to our inquiry, the Department indicated that the employee terminated on February 11, 2011, and, as a result, the employee's account had remained active for 1,050 days as of the date of our testing. The Department indicated that the contractor terminated sometime in 2011, but was unable to provide us with a specific termination date.
- As of December 26, 2013, one former SSRC employee retained access to the Department's File Transfer Protocol (FTP) server used by the county property appraisers to upload data such as tax rolls. In response to our inquiry, the Department indicated that this user terminated from the SSRC on November 16, 2012, and, as a result, the employee's account had remained active for 406 days as of the date of our testing.
- One PTO Oracle database administration account and one service account for the operating system supporting the PTO Oracle database were no longer needed by the Department.

Inappropriate and unnecessary access increases the risk that intentional or erroneous manipulation of data may occur.

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**Recommendation:** The Department should limit user access privileges to PTO Oracle application data and IT resources to only those access privileges that are appropriate and necessary to perform assigned job responsibilities. Additionally, the Department should ensure that the access privileges of former employees and contractors and other accounts are deactivated in a timely manner upon the departure of the user or when the account is no longer needed.

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## **Finding No. 2: Access Authorization Documentation**

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Effective access authorization practices include, among other things, the use of access authorization forms to document the user access privileges that management has authorized. Additionally, access authorization documentation should be maintained in an adequate manner to facilitate the complete and accurate assignment of user access privileges.

We requested access authorization documentation for 33 PTO Oracle application user accounts (evaluated for appropriateness in the testing that resulted in Finding No. 1 above) to determine if access granted was adequately documented and authorized. The Department was unable to provide access authorization documentation for 20 of the 33 user accounts. Our review of the access authorization documentation provided by the Department for the remaining 13 user accounts disclosed that 3 access authorization documents did not accurately document the access privileges that had been assigned to the users.

The absence of documentation of management's authorization of user access privileges and inaccurate access authorization documentation may limit the Department's ability to ensure that user access privileges do not exceed what is necessary for the accomplishment of user assigned job responsibilities.

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**Recommendation:** The Department should maintain documentation of management's authorization of user access privileges and ensure that the documentation is accurate.

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**Finding No. 3: Periodic Review of Access Privileges**

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Periodic review of access privileges helps ensure that access privileges remain appropriate. Although the Department had implemented policies and procedures regarding the periodic review of access privileges, a periodic review of access privileges for the PTO Oracle application, including operating systems and database accounts, had not been performed. As a result, management could not be assured that access privileges defined for users were appropriate. Without a periodic review of access privileges, there is an increased risk of inappropriate access to data files and programs that could result in compromised data integrity.

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**Recommendation:** The Department should perform a periodic review of access privileges for the PTO Oracle application to ensure access privileges remain appropriate.

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**Finding No. 4: Logging and Monitoring of System Activity**

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Controls related to the logging and monitoring of system activity are intended to protect the confidentiality, integrity, and availability of data and IT resources. Our audit disclosed certain Department controls related to the logging and monitoring of system activity that needed improvement. We are not disclosing specific details of the issues in this report to avoid the possibility of compromising PTO System data and related IT resources. However, we have notified appropriate Department management of the specific issues. Without adequate logging and monitoring controls related to system activity, the risk is increased that the confidentiality, integrity, and availability of PTO System data and related IT resources may be compromised.

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**Recommendation:** The Department should improve controls over the logging and monitoring of system activity to ensure the continued confidentiality, integrity, and availability of PTO System data and related IT resources.

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**Finding No. 5: Security Controls – User Authentication**

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Security controls are intended to protect the confidentiality, integrity, and availability of data and IT resources. Our audit disclosed certain Department security controls related to user authentication that needed improvement. We are not disclosing specific details of the issues in this report to avoid the possibility of compromising PTO System data and related IT resources. However, we have notified appropriate Department management of the specific issues. Without adequate security controls related to user authentication, the risk is increased that the confidentiality, integrity, and availability of PTO System data and related IT resources may be compromised.

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**Recommendation:** The Department should improve user authentication controls to ensure the continued confidentiality, integrity, and availability of PTO System data and related IT resources.

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**OBJECTIVES, SCOPE, AND METHODOLOGY**

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The Auditor General conducts operational audits of governmental entities to provide the Legislature, Florida's citizens, public entity management, and other stakeholders unbiased, timely, and relevant information for use in promoting government accountability and stewardship and improving government operations.

We conducted this IT operational audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, 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.

The objectives of this IT operational audit were to determine the effectiveness of selected IT controls in achieving management's control objectives in the categories of compliance with controlling laws, administrative rules, and other guidelines; the confidentiality, integrity, availability, relevance, and reliability of data; and the safeguarding of IT resources.

The scope of our audit focused on selected business process application controls over transaction data input and transaction data output, selected interface controls, and selected access controls applicable to the PTO System during the period December 2013 through February 2014. The audit also included selected application level general controls related to access controls, configuration management, and contingency planning.

This audit was designed to identify, for the IT system and controls included within the scope of the audit, deficiencies in management's internal controls and IT controls; instances of noncompliance with applicable governing laws, rules, or contracts; and instances of inefficient or ineffective IT operational policies, procedures, or practices. The focus of this IT operational audit was to identify problems so that they may be corrected in such a way as to improve government accountability and efficiency and the stewardship of management. Professional judgment has been used in determining significance and audit risk and in selecting the particular IT controls, legal compliance matters, and records considered.

As described in more detail below, for the IT system and controls included within the scope of the audit, the audit work included, but was not limited to, communicating to management and those charged with governance the scope, objectives, timing, overall methodology, and reporting of our audit; obtaining an understanding of the IT system and controls; exercising professional judgment in considering significance and audit risk in the design and execution of the research, interviews, tests, analyses, and other procedures included in the audit methodology; obtaining reasonable assurance of the overall sufficiency and appropriateness of the evidence gathered in support of our audit's findings and conclusions; and reporting on the results of the audit as required by governing laws and auditing standards.

Our audit included the selection and examination of IT system controls and records. Unless otherwise indicated in this report, these items were not selected with the intent of statistically projecting the results, although we have presented for perspective, where practicable, information concerning relevant population value or size and quantifications relative to the items selected for examination.

An audit by its nature does not include a review of all records and actions of agency management, staff, and vendors and, as a consequence, cannot be relied upon to identify all instances of noncompliance, fraud, abuse, or inefficiency.


In conducting our audit, we:

- Interviewed Department personnel.
- Obtained an understanding of the PTO System's purpose and goals.
- Obtained an understanding of the Department's IT functions as they relate to the PTO System, including relevant IT functions that are now a part of the SSRC.
- Obtained an understanding of key sources of data (internal and external) and their related process flows that ensure the completeness, accuracy, validity, and confidentiality of data input into the PTO System.

- Obtained an understanding of key types of data output and their related processes that ensure the completeness, accuracy, validity, and confidentiality of outputs from the PTO System.
- Observed and documented selected general, application, and user controls, including policies, procedures, hardware, software, organizational structure, and personnel relating to the PTO System.
- Observed, documented, and evaluated selected transaction data input and output controls that ensure the completeness, accuracy, validity, and confidentiality of data input into the PTO System.
- Evaluated platform and application security management controls related to the PTO System.
- Evaluated the effectiveness of selected access controls that ensure access to the PTO System was appropriately restricted to authorized users; authentication controls that ensure access privileges were appropriately restricted; logical access controls that ensure access privileges were appropriately restricted and provided an adequate separation of duties; sensitive application resources, such as confidential data, are adequately protected; and logging parameters are appropriately defined and logs are available when needed.
- Evaluated application configuration management controls related to the PTO System.
- Evaluated contingency planning controls related to the PTO System.
- Evaluated the appropriateness of selected administrator access privileges to the PTO Oracle database and network supporting the PTO System.
- Evaluated the appropriateness of selected PTO Oracle application access for 33 users and whether access had been appropriately authorized.
- Evaluated the appropriateness of selected access privileges to the PTO Oracle application and Oracle database operating systems and supporting FTP server.
- Performed various other auditing procedures as necessary to accomplish the objectives of the audit.

**AUTHORITY**

Pursuant to the provisions of Section 11.45, Florida Statutes, I have directed that this report be prepared to present the results of our IT operational audit.



David W. Martin, CPA  
Auditor General

**MANAGEMENT’S RESPONSE**

In a letter dated April 11, 2014, the Executive Director provided responses to our preliminary and tentative findings. This letter is included at the end of this report as **EXHIBIT A**.

EXHIBIT A  
MANAGEMENT'S RESPONSE



**Executive Director**  
Marshall Stranburg

**Child Support Enforcement**  
Ann Coffin  
Director

**General Tax Administration**  
Maria Johnson  
Director

**Property Tax Oversight**  
James McAdams  
Director

**Information Services**  
Damu Kuttikrishnan  
Director

April 11, 2014

Mr. David W. Martin, CPA  
Auditor General  
Office of the Auditor General  
G74 Claude Pepper Building  
111 West Madison Street  
Tallahassee, Florida 32399-1450

Dear Mr. Martin:

As required by section 11.45(4)(d), Florida Statutes, attached is the Department's response to the preliminary and tentative findings and recommendations related to your information technology operational audit of the Department of Revenue Property Tax Oversight (PTO) System.

We appreciate the professionalism displayed by your audit staff. If you have questions or need additional information, please contact Marie Walker, Director of Auditing, at 717-7598.

Sincerely,

Marshall Stranburg

MS/mw

Attachment

cc: Sharon Doredant, Inspector General  
Marie Walker, Director of Auditing

Tallahassee,  
Florida  
32399-0100

**EXHIBIT A (CONTINUED)**  
**MANAGEMENT'S RESPONSE**

**Response to Preliminary and Tentative Audit Findings**  
**Information Technology Operational Audit**  
**Property Tax Oversight (PTO) System**

**Finding No. 1:** Access privileges of some users were not appropriate for their job responsibilities and some accounts existed that were no longer needed.

**Recommendation:** The Department should limit user access privileges to PTO Oracle application data and IT resources to only those access privileges that are appropriate and necessary to perform assigned job responsibilities. Additionally, the Department should ensure that the access privileges of former employees and contractors and other accounts are deactivated in a timely manner upon the departure of the user or when the account is no longer needed.

**Response:** We agree with the finding and recommendations. We will delete the unnecessary accounts, and perform a review of the duties and responsibilities of the PTO Oracle application and database users.

**Finding No. 2:** Authorization documentation of access privileges for some users was missing and, in some instances, inaccurate.

**Recommendation:** The Department should maintain documentation of management's authorization of user access privileges and ensure that the documentation is accurate.

**Response:** We agree with the finding and recommendations. We will review our access management procedures and provide additional training where necessary.

**Finding No. 3:** The Department had not performed a periodic review of PTO Oracle application access privileges.

**Recommendation:** The Department should perform a periodic review of access privileges for the PTO Oracle application to ensure access privileges remain appropriate.

**Response:** We agree with the finding and recommendations. We will perform a monthly review of the access privileges to the PTO Oracle application.

**Finding No. 4:** Certain PTO System controls related to the logging and monitoring of system activity needed improvement.

**Recommendation:** The Department should improve controls over the logging and monitoring of system activity to ensure the continued confidentiality, integrity, and availability of PTO System data and related IT resources.

**EXHIBIT A (CONTINUED)**  
**MANAGEMENT'S RESPONSE**

Department of Revenue  
Preliminary and Tentative Audit Findings—Response  
Property Tax Oversight (PTO) System  
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**Response:** We agree with the finding and recommendations, and plan to perform the requested actions.

**Finding No. 5:** Certain PTO System security controls related to user authentication needed improvement.

**Recommendation:** The Department should improve user authentication controls to ensure the continued confidentiality, integrity, and availability of PTO System data and related IT resources.

**Response:** We agree with the finding and recommendations, and plan to perform the requested actions.