

STATE OF FLORIDA AUDITOR GENERAL

Information Technology Operational Audit

Report No. 2016-032
November 2015

DEPARTMENT OF FINANCIAL SERVICES

Florida Accounting Information Resource Subsystem
(FLAIR)



Sherrill F. Norman, CPA
Auditor General

Chief Financial Officer

Pursuant to Article IV, Sections 4.(c) and 5.(a) of the State Constitution, the Chief Financial Officer is an elected member of the Cabinet and serves as the chief fiscal officer of the State. Pursuant to Section 20.121(1), Florida Statutes, the Chief Financial Officer is the head of the Department of Financial Services. The Honorable Jeff Atwater served as Chief Financial Officer during the period of our audit.

The team leader was Faye Smith, CISA, CFE, and the audit was supervised by Tina Greene, CPA, CISA.

Please address inquiries regarding this report to Arthur Hart, CPA, Audit Manager, by e-mail at arthart@aud.state.fl.us or by telephone at (850) 412-2923.

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DEPARTMENT OF FINANCIAL SERVICES

Florida Accounting Information Resource Subsystem (FLAIR)

SUMMARY

The Florida Accounting Information Resource Subsystem (FLAIR) is the State of Florida's accounting system. Pursuant to Sections 215.93(1)(b) and 215.94(2), Florida Statutes, FLAIR is a subsystem of the Florida Financial Management Information System and the Department of Financial Services (Department) is the functional owner of FLAIR. FLAIR's function, as provided in State law, includes accounting and reporting so as to provide timely data for producing financial statements for the State in accordance with generally accepted accounting principles and for auditing and settling claims against the State.

This operational audit focused on evaluating selected information technology (IT) controls relevant to financial reporting and applicable to FLAIR and included a follow-up on all findings disclosed in our report No. 2015-014 and findings noted in our report Nos. 2014-033 and 2014-184 that were applicable to the scope of this audit. As summarized below, the audit disclosed areas in which improvements in FLAIR IT controls and operational processes were needed.

Finding 1: The access privileges for some FLAIR users did not promote an appropriate separation of duties or did not restrict users to only those functions necessary for their assigned job duties.

Finding 2: Department procedures for the periodic review of user access privileges needed improvement to ensure that the access privileges assigned to users are authorized and appropriate.

Finding 3: Certain Payroll Component application controls were not effective in ensuring the completeness, accuracy, and availability of payroll transactions and data.

BACKGROUND

In 1980, the Legislature enacted the Florida Fiscal Accounting Management Information System Act to strengthen and standardize the fiscal management and accounting practices of the State in order to provide timely data for producing Statewide financial statements in accordance with generally accepted accounting principles. As a result of this Act, the State Automated Management Accounting Subsystem (SAMAS) was developed. Between 1983 and 1986, agencies implemented SAMAS for managing their accounting needs. In 1997, SAMAS was renamed as the Florida Accounting Information Resource Subsystem (FLAIR). FLAIR plays a major role in ensuring that State financial transactions are accurately and timely recorded and that the State's Comprehensive Annual Financial Report (CAFR) is presented in accordance with appropriate standards, statutes, rules, and regulations.

FLAIR is composed of four components:

- The Departmental Accounting Component (DAC) maintains State agency accounting records and provides State agency management with a budgetary check mechanism. The Statewide Financial Statements (SWFS) Subsystem of DAC is used to assist and support the Department of Financial Services (Department), Division of Accounting and Auditing in the preparation of the State's CAFR. State agencies are the primary users of DAC.

- The Central Accounting Component (CAC) maintains a separate accounting system used by the Department on the cash basis for the control of the budget by line item of the General Appropriations Act. The Division of Accounting and Auditing is the primary user of CAC.
- The Payroll Component processes the State's payroll. The Division of Accounting and Auditing is the primary user of the Payroll Component. The Bureau of State Payrolls (BOSP) within the Division of Accounting and Auditing administers payroll processing.
- The Information Warehouse is a reporting system that allows users to access information extracted from DAC, CAC, the Payroll Component, and certain systems external to FLAIR. State agencies are the primary users of the Information Warehouse.

The Department is responsible for the operation and maintenance of FLAIR. Within the Department, the Division of Information Systems operates the Chief Financial Officer's Data Center that maintains FLAIR.

On October 3, 2013, the Department entered into a contract with North Highland Worldwide Consulting to complete a study of FLAIR and to provide a recommendation to either replace or enhance FLAIR. The *FLAIR Study* was delivered to the Department on March 21, 2014, and Department management reviewed and published the *FLAIR Study* in April 2014. Based on the analysis completed in the *FLAIR Study*, North Highland Worldwide Consulting recommended that the State replace FLAIR and the Department's Cash Management System (CMS) with a commercial off-the-shelf Enterprise Resource Planning (ERP) solution.

In response to the recommendation, the Department, as the functional owner of FLAIR, created a multi-year FLAIR and CMS replacement project in 2014. The multi-year project is referred to as the Florida Planning, Accounting, and Ledger Management (Florida PALM) project. According to the Agency for State Technology's *Florida PALM Quarterly Project Oversight Report: Comprehensive Review for January - March 2015*, the project is currently focused on planning, business process standardization, requirements development, and the procurement of the ERP solution with an ultimate goal of procuring and contracting with a software and systems integrator by January 3, 2017.

The Department also created a Statewide FLAIR Object Code Standardization project in an effort to streamline and enhance expenditure and revenue reporting across State agencies by developing a common and meaningful object code structure in FLAIR. The creation of and conversion to Statewide FLAIR expenditure object codes and the mapping of MyFloridaMarketPlace commodity codes to the Statewide FLAIR expenditure object codes were completed in June 2015. The Department is working on the creation of Statewide FLAIR revenue object codes for use by State agencies in the fall of 2016.

FINDINGS AND RECOMMENDATIONS

Finding 1: Appropriateness of Access Privileges

Effective access controls include measures that limit user access privileges to data and IT resources to promote an appropriate separation of duties and that restrict users to only those functions necessary for their assigned job duties. Appropriately restricted access privileges help protect data and IT resources from unauthorized modification, loss, or disclosure. Our audit procedures disclosed that some inappropriate and unnecessary access privileges existed to selected functions within DAC, the Payroll

Component including Report Distribution System (RDS) payroll reports, and the Payroll Component program change management process as disclosed below:

DAC Cash Receipts (CR) and Cash Disbursements (DB) Functions: Our review of the update access privileges to DAC CR and DB functions for 11 BOSP users disclosed that 2 users had inappropriate update access privileges as a result of having incompatible access privileges to both the CR and DB functions. A similar finding regarding DAC access privileges was noted in prior audits of the Department, most recently our report No. 2015-014.

Payroll Component Functions: Our review of the update access privileges to the Tax Reporting, Warrant Cancellation Approval, and Non-Cash Approval payroll functions for 14 Department users disclosed that 1 user had unnecessary update access privileges to the Tax Reporting payroll function. Subsequent to our audit inquiry, Department management limited the access privileges for this user to inquiry only. A similar finding regarding Payroll Component access privileges was noted in prior audits of the Department, most recently our report No. 2015-014.

RDS Payroll Reports: Our review of an access group that provided 10 users with group member global access privileges to RDS payroll reports, including RDS Statewide payroll register reports, disclosed that 9 of the 10 user identification codes (user IDs) defined for these users in the access group had access privileges to RDS payroll reports that were not necessary for the users' assigned job duties. Subsequent to our audit inquiry, Department management removed 3 of the 9 user IDs with unnecessary access privileges from the access group. A similar finding regarding RDS Payroll Reports access privileges was noted in our report No. 2015-014.

Payroll Component Program Change Management: Our review of the Payroll Component program change management process disclosed that 1 employee in the Division of Information Systems had incompatible access privileges that provided the capability to create Payroll Component program changes and move the program changes into the production environment. Additionally, this same employee was solely responsible for reviewing production program change move reports to ensure that the program changes moved into the production environment were appropriate.

Inappropriate or unnecessary access to FLAIR data and IT resources increases the risk of unauthorized modification, loss, or disclosure of FLAIR data and IT resources.

Recommendation: Department management should limit user access privileges to FLAIR data and IT resources to promote an appropriate separation of duties and restrict users to only those functions necessary for their assigned job duties.

Finding 2: Periodic Review of User Access Privileges

Periodic review of user access privileges helps ensure that access privileges assigned to users are authorized and remain appropriate. Our audit disclosed that Department procedures related to the periodic review of access privileges for certain users with access to programming and reporting systems needed improvement. Specifically, we found that:

- There were no written procedures related to the periodic review of user access privileges for COmmon Business-Oriented Language (COBOL) and UNIX users and the Department had not performed periodic reviews of user access privileges for those users.

- Periodic access review procedures did not include the user access privileges defined for RDS payroll reports, the DAC State Chief Financial Officer Files (SC) function, and the related DAC SC Electronic Funds Transfer (EFT) Authorization Inquiry Request (ET) mini-menu function.

Without periodic reviews of user access privileges, there is an increased risk that inappropriate access to programs and data may exist that could result in compromised data integrity. A similar finding was noted in prior audits of the Department, most recently our report No. 2015-014.

Recommendation: Department management should improve written procedures for periodic reviews of user access privileges to include all programming and reporting systems to ensure that the user access privileges assigned are authorized and appropriate.

Finding 3: Payroll Component Application Controls

Application controls consist of automated and manual controls applied to business transaction flows and relate to the completeness, accuracy, and availability of transactions and data during application processing. Our audit procedures disclosed that certain Payroll Component application controls were not effective in ensuring the completeness, accuracy, and availability of payroll transactions and data. We are not disclosing specific details of the issue in this report to avoid the possibility of compromising the confidentiality of payroll transactions and data. However, we have notified appropriate Department management of the specific issue. Without appropriate Payroll Component application controls, the completeness, accuracy, and availability of payroll transactions and data may be compromised. A similar issue was communicated to Department management in connection with our report No. 2014-033.

Recommendation: Department management should improve Payroll Component application controls to ensure the completeness, accuracy, and availability of payroll transactions and data.

PRIOR AUDIT FOLLOW-UP

Except as discussed in the preceding paragraphs, the Department had taken corrective actions for the applicable findings included in our report Nos. 2014-033, 2014-184, and 2015-014.

OBJECTIVES, SCOPE, AND METHODOLOGY

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 from April 2015 through June 2015 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 the audit findings and our conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for the audit findings and our conclusions based on our audit objectives.

This IT operational audit focused on evaluating selected IT controls relevant to financial reporting and applicable to FLAIR during the period July 2014 through June 2015 and selected actions through

August 4, 2015. The audit included selected application-level general controls over logical access and configuration management. The audit also included selected business process application controls related to Auto Pay review processes and selected payroll transaction data input, processing, and output. The overall objectives of the 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.
- To determine the status of the FLAIR replacement project (i.e., Florida PALM project) and the Statewide FLAIR Object Code Standardization project.
- To determine the effectiveness of selected FLAIR application-level general controls in relation to logical access for selected FLAIR Payroll, Central, and Departmental Component functions and reports and selected configuration management; the effectiveness of business process application controls related to Auto Pay review processes; and selected payroll transaction data input, processing, and output.
- To determine whether management had corrected, or was in the process of correcting, all deficiencies disclosed in our report No. 2015-014 and deficiencies noted in our report Nos. 2014-033 and 2014-184 that were applicable to the scope of this audit.
- To identify statutory and fiscal changes that may be recommended to the Legislature pursuant to Section 11.45(7)(h), Florida Statutes.

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; instances of noncompliance with applicable governing laws, rules, or contracts; and instances of inefficient or ineffective operational policies, procedures, or practices. The focus of this 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 this audit, our 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 the 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 the audit findings and our conclusions; and reporting on the results of the audit as required by governing laws and auditing standards.

This 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 contractors and, as a consequence, cannot be relied upon to identify all instances of noncompliance, fraud, abuse, or inefficiency.

In conducting this audit, we:

- Interviewed Department personnel.
- Obtained an understanding of the Department's access privilege assignments for FLAIR data and IT resources.
- Evaluated the appropriateness of BOSP user access privileges to the DAC CR and DB functions from July 1, 2014, through March 31, 2015.
- Evaluated the appropriateness of Statewide access privileges to the DAC SC function and related DAC SC ET mini-menu function for the period July 1, 2014, through March 31, 2015.
- Evaluated the appropriateness of access privileges to the CAC EFT Authorization and EFT Payment Detail functions for the period July 1, 2014, through March 31, 2015.
- Evaluated the appropriateness of Statewide and Department user access privileges to the Tax Reporting, Warrant Cancellation Approval, and Non-Cash Approval payroll functions for the period July 1, 2014, through March 31, 2015.
- Evaluated the appropriateness of group member global access privileges to RDS payroll reports, including RDS Statewide payroll register reports, as of June 4, 2015.
- Obtained an understanding of the Department's status regarding the implementation of procedures and reports for periodically reviewing user access privileges for COBOL and UNIX users.
- Obtained an understanding of the Department's status regarding the implementation of procedures for periodically reviewing the user access privileges defined for RDS payroll reports, the DAC SC function, and the related DAC SC ET mini-menu function.
- Evaluated Department procedures for periodically reviewing user access privileges defined for COBOL and UNIX users, RDS payroll reports, the DAC SC function, and the related DAC SC ET mini-menu function.
- Evaluated the appropriateness of certain Department password control parameters for ensuring effective identification and authentication mechanisms.
- Evaluated the adequacy of Department procedures to restrict confidential and exempt information from being displayed on the Department's Web site.
- Obtained an understanding of the Department's status regarding the Florida PALM project, the Statewide FLAIR Object Code Standardization project, and the implementation of the interim solution for the production control issue encountered during nightly batch processing in June 2014.
- Obtained an understanding of the Department's configuration management controls (i.e., program change management controls).
- Evaluated the effectiveness of selected Department controls over the authorization, documentation, creation, testing, approval, and movement into the production environment of program changes related to the Statewide FLAIR Object Code Standardization project and the implementation of the interim solution for the production control issue encountered during nightly batch processing in June 2014.
- Obtained an understanding of the Department's BOSP procedures including those related to employee and employer retirement contribution adjustments and payroll dropped deductions priority sequencing.
- Evaluated the effectiveness of selected Department input and processing controls for retirement contribution adjustments.

- Evaluated the effectiveness of selected Department processing controls related to payroll deductions and the payroll dropped deductions priority sequencing.
- Evaluated the adequacy of selected Department processing control procedures and guidance related to salary refunds and agency-specific recovery codes.
- Evaluated the effectiveness of selected Department output controls for BOSP payroll reports related to monitoring for dual employment and related to agency retirement correction information.
- Obtained an understanding of the Department's Statewide Financial Statements Subsystem processes.
- Obtained an understanding of the Department's Auto Pay review processes.
- Evaluated the Department's Auto Pay review processes to determine whether Department procedures included a defined process for periodically reviewing agency-exempt invoice payment types.
- Communicated on an interim basis with applicable officials to ensure the timely resolution of issues involving controls and noncompliance.
- Performed various other auditing procedures, including analytical procedures, as necessary, to accomplish the objectives of the audit.
- Prepared and submitted for management response the findings and recommendations that are included in this report and which describe the matters requiring corrective actions. Management's response is included in this report under the heading **MANAGEMENT'S RESPONSE**.

AUTHORITY

Section 11.45, Florida Statutes, provides that the Auditor General may conduct audits of the IT programs, activities, functions, or systems of any governmental entity created or established by law. 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.



Sherrill F. Norman, CPA
Auditor General

MANAGEMENT'S RESPONSE



CHIEF FINANCIAL OFFICER
JEFF ATWATER
STATE OF FLORIDA

November 5, 2015

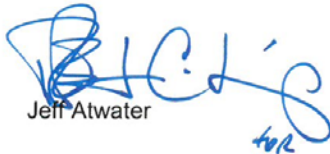
Sherrill F. Norman
Auditor General
111 West Madison Street
Tallahassee, Florida 32399-1450

Dear Ms. Norman:

Pursuant to Section 11.45(3)(b), Florida Statutes, the enclosed response is provided for the preliminary and tentative audit findings included in the Auditor General's information technology operational audit of the *Department of Financial Services, Florida Accounting Information Resource Subsystem (FLAIR)*.

If you have any questions concerning this response, please contact Teresa Michael, Inspector General, at (850) 413-4960.

Sincerely,


Jeff Atwater

JA:rlg

Enclosure

DEPARTMENT OF FINANCIAL SERVICES
THE CAPITOL, TALLAHASSEE, FLORIDA 32399-0301 • (850) 413-2850 FAX (850) 413-2950

**DEPARTMENT OF FINANCIAL SERVICES
FLORIDA ACCOUNTING INFORMATION RESOURCE SUBSYSTEM (FLAIR)
Information Technology Operational Audit**

RESPONSE TO PRELIMINARY AND TENTATIVE AUDIT FINDINGS

Finding No. 1: Appropriateness of Access Privileges

The access privileges for some FLAIR users did not promote an appropriate separation of duties or did not restrict users to only those functions necessary for their assigned job duties.

Recommendation: Department management should limit user access privileges to FLAIR data and IT resources to promote an appropriate separation of duties and restrict users to only those functions necessary for their assigned job duties.

Response: We concur. As of July 29, 2015, the Division of Information Systems (DIS) concluded its review and restriction of staff access to the RDS reports. Additionally, as of July 24, 2015, DIS modified the distribution of the production program change move reports to ensure that they were distributed to and reviewed by another staff member.

On October 14, 2015, the Division of Accounting and Audit (A&A) changed the access to the cash receipts function from update to inquiry only for the two users identified. On May 11, 2015, A&A changed the user's access privileges from update to inquiry for the Tax Reporting payroll function.

Expected Completion Date for Corrective Action: Completed

**DEPARTMENT OF FINANCIAL SERVICES
FLORIDA ACCOUNTING INFORMATION RESOURCE SUBSYSTEM (FLAIR)
Information Technology Operational Audit**

Finding No. 2: Periodic Review of Access Privileges

Department procedures for the periodic review of user access privileges needed improvement to ensure that the access privileges assigned to users are authorized and appropriate.

Recommendation: Department management should improve written procedures for periodic reviews of user access privileges to include all programming and reporting systems to ensure that the user access privileges assigned are authorized and appropriate.

Response: We concur. The DIS is working through the development and implementation of processes for reviewing UNIX and COBOL accesses on an ongoing basis. Existing review processes for the DAC State Chief Financial Officer Files (SC) function, and related DAC SC Electronic Funds Transfer (EFT) Authorization Inquiry Request (ET) mini-menu function will be evaluated and revised, where appropriate. The Bureau of State Payrolls (BOSP) is developing a quarterly access review for all RDS generated payroll reports.

Expected Completion Date for Corrective Action: March 2016

**DEPARTMENT OF FINANCIAL SERVICES
FLORIDA ACCOUNTING INFORMATION RESOURCE SUBSYSTEM (FLAIR)
Information Technology Operational Audit**

Finding No. 3: Payroll Component Application Controls

Certain Payroll Component application controls were not effective in ensuring the completeness, accuracy, and availability of payroll transactions and data.

Recommendation: Department management should improve Payroll Component application controls to ensure the completeness, accuracy, and availability of payroll transactions and data.

Response: The Department will continue to evaluate and address application controls, as appropriate.

Expected Completion Date for Corrective Action: January 1, 2016