



# Florida Department of TRANSPORTATION

Office of Inspector General  
Robert E. Clift, Inspector General

A handwritten signature in blue ink, appearing to read "Robert E. Clift", is positioned to the right of the printed name.

Audit Report No. 16P-5003  
Department Hardware and Servers

February 15, 2017

## What We Did

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The Office of Inspector General (OIG) conducted an audit of the Florida Department of Transportation's (department) compliance with the consolidation requirement of Chapter 282, Florida Statute (F.S.) requiring the migration of all data center and data computing resources in the Central Office to the Agency for State Technology's (AST) State Data Center (SDC).

## What We Found

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We determined the department substantially complied with the statutory requirement to consolidate its data servers to the SDC.

Based on our examination, we determined there were findings in three areas:

- Governance of AST Exemptions  
**We determined** the Office of Information Technology (OIT) lacks a documented procedure, which has elements in compliance with the statutes, governing the exemption process for servers and network devices.  
**We determined** OIT, Structures Design Office, and Office of Maintenance lacked exemption documentation for 9 of 249 servers (3.6%) assigned to Central Office.<sup>1</sup>
- Inaccurate FLAIR Data  
**We determined** OIT, Traffic Engineering and Operations Office, Emergency Management Office, and Office of Maintenance data in the FLAIR inventory subsystem was accurate for 453 (83%) of the 546 fields tested, which included item number, item class, physical location, serial number, item description, and property unique field. We did not find any inaccuracies with the Office of Maintenance data. We informed OIT, Traffic Engineering and Operations, and the Emergency Management Office of the results and all but the property unique field inaccuracies were corrected during the audit.

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<sup>1</sup> Assigned to central office cost center in FLAIR, but may be located in a district.

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- IT Asset Management System (ITAM)  
**We determined** OIT did not have a system in place to record, track, and manage physical hardware in a networked environment as required by Rule 74-2.002 (1), Florida Administrative Code (F.A.C.) at the time of audit fieldwork.

After we concluded our fieldwork, OIT deployed a Cherwell module to perform inventory-tracking activities. We verified the Cherwell module performs the inventory tracking activities required by Rule 74-2.002 (1).

### **What We Recommend**

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**We recommend** the Chief Information Officer (CIO):

- Establish a documented procedure, which has elements in compliance with the statutes, governing the exemption process for servers and network devices. The procedure should include the process for obtaining exemptions from AST and retention of supporting documentation.
- Obtain exemptions or properly dispose of the identified nonexempt servers located in Central Office.
- Ensure improper information recorded in the FLAIR property unique field conforms to the requirements of Department Procedure No. 350-090-310, Tangible Personal Property (TPP).

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## **BACKGROUND AND INTRODUCTION**

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In 2007, the Florida Legislature passed Chapter 14, Florida Statute (F.S.), creating the Agency for Enterprise Information Technology (AEIT) within the Executive Office of the Governor. The agency was given the duty and responsibility for the design, delivery, and management of enterprise information technology services. These changes included the rulemaking authority to establish policies for the management of enterprise information technology services and to define the architectural standards of the same.

In 2008, the Florida Legislature passed changes to Chapter 282, F.S., the Information Resources Management Act of 1997, which established a system of state data centers into which agencies were required to consolidate their data centers and computing facilities. Subsequent revisions to this statute included department resources located in the Burns building, and Survey and Mapping Office for consolidation into the Southwood Shared Resource Center (SSRC) by March 31, 2012. The Office of Information Technology (OIT) transferred 303 servers from central office locations to SSRC in 2012.

In 2012, Chapter 282, F.S., was amended to include consolidation planning requirements for the department's district offices, toll offices, and district materials office into a state data center during the 2014-2015 fiscal year.

In 2014, the Florida Legislature passed House Bill 7073, establishing the Agency for State Technology (AST) to oversee the state's essential technology projects. Additional changes included the repeal of sections relating to AEIT, removing consolidation requirements for the department's district offices and district materials office, and adding two enumerated exemptions for the Office of Toll Operations and regional traffic management centers.

The following categories of data servers and hardware are exempted through the statutes from moving to AST:

- Geographically located outside of the Central Office (CO)
- Office of Toll Operations
- Intelligent Transportation Systems (ITS) Regional Traffic Management Centers
- Utility functions (e.g. print, telephone, voicemail)

As of June 20, 2016, there were 2,206 servers assigned to department offices throughout the state, with 1,957 of the servers excluded from the statutory consolidation requirement because they are located in the districts. The scope of this audit is on the remaining 249 servers.

**RESULTS OF REVIEW**

We determined the department substantially complied with the statutory requirement to consolidate CO data servers to the SDC. We examined each server in CO, as of June 2016, against statutory exemptions to determine whether the department is compliant with Chapter 282, F.S., and found 240 (96.4%) of the servers are statutorily compliant. Nine CO servers were not compliant with the statute. The Office of Information Technology currently controls the nine servers, which are in varying phases of configuration or end of life processing (surplus).

**Criteria**

The following criteria were applicable to the findings:

- Section 282.201, Florida Statutes (F.S.), details requirements for documentation from state agencies for exemption requests.
- Rule 74-2.002 (1), F.A.C., requires each agency ensures that IT resources are identified and managed.
- Department Procedure No. 350-090-310, Tangible Personal Property (TPP), specifies the responsibilities for the receipt of property and details information requirements for each property record in FLAIR.

**Finding 1 – Governance of AST Exemptions**

**We determined** OIT lacks a documented procedure, which has elements in compliance with the statutes, governing the exemption process for servers and network devices.

**We determined** 9 (3.6%) of 249 data servers assigned to Central Office (CO) did not have documented exemptions from AST. Two of these servers are now in the surplus process.

As of June 20, 2016, the FLAIR property subsystem listed 249 servers assigned to CO cost centers:

- 236 servers are statutorily exempt
- 4 servers have exemptions from AST, see table 1

**Table 1 – Servers with Exemptions**

Office	Server	Exemption Requested	Exemption Granted
OIT	NH321325	Yes	Yes
OIT	NH321326	Yes	Yes
OIT	NH333084	Yes	Yes
OIT	untagged server*	Yes	Yes

\* Three untagged servers were discovered during testing and OIT has been notified they need to be properly tagged and entered into FLAIR.

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- 9 servers do not have exemptions from AST, see table 2

**Table 2 – Servers without Exemptions**

Office	Server	Exemption Requested	Exemption Granted
OIT	untagged server*	No	No
OIT	untagged server*	No	No
OIT	NH394944	No	No
OIT	NH325711	No	No
OIT	NH371715	No	No
OIT	NH358744	No	No
OIT	NH371716	No	No
Structures Design transferred to OIT for surplus 10/10/16	NH344996	No	No
Maintenance transferred to OIT for surplus 9/1/16	NH323694	No	No

The Structures Design Office and Office of Maintenance began the surplus process of their respective offline servers subsequent to meeting with the auditors to discuss this finding. Both offices submitted Property Management Reports and transferred physical custody of the servers to OIT. We verified the property delegate transferred ownership of the servers in FLAIR to OIT.

OIT lacks documented procedures governing the exemption process to ensure the department complies with statutory requirements for data server exemptions. There are not clear guidelines from AST for the submission of exemption requests resulting in the absence of verifiable documentation for granted exemptions except for four servers.

**We recommend** the Chief Information Officer (CIO):

- establish a documented procedure, which has elements in compliance with the statutes, governing the exemption process for servers and network devices. The procedure should include the process for obtaining exemptions from AST and retention of supporting documentation; and
- obtain exemptions or properly dispose of the identified nonexempt servers located in Central Office.

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\* Three untagged servers were discovered during testing and OIT has been notified they need to be properly tagged and entered into FLAIR.

**Finding 2 – Inaccurate FLAIR data**

**We determined** data in the FLAIR inventory subsystem was accurate for 453 (83%) of the 546 data fields tested.

We obtained a list of department servers and hardware from the active property file report located on the Office of the Comptroller's SharePoint site. This file is a daily extract from the FLAIR property subsystem of all tangible personal property with asset tags recorded for the department.

During our testing, we examined OIT, Traffic Engineering and Operations, the Emergency Management Office, and Office of Maintenance FLAIR data for 91 items with Central Office location codes and a class code indicating the items were servers or network devices. Data recorded for the Office of Maintenance items examined was accurate. We determined the following with the OIT, Traffic Engineering and Operations, and the Emergency Management Office data:

- 19 items (21%) had accurate data recorded in the 6 FLAIR data fields (item number, item class, physical location, serial number, item description, and property unique field) selected for review; and
- 72 items (79%) had inaccurate data recorded in at least 1 FLAIR data field:
  - 7 items (8%) had incorrect class codes and incorrect location codes;
  - 14 items (15%) had incorrect location codes and improper property unique fields;
  - 17 items (19%) had incorrect location codes only; and
  - 34 items (37%) had improper property unique fields only.

We observed the property unique field did not have the name of the individual assigned the hardware as required by the Office of the Comptroller's (OOC) Tangible Personal Property Procedure. Auditors made the observation that department offices have adapted this field to record other information related to IT property because of limitations in the fields available in FLAIR.

We informed OIT, Traffic Engineering and Operations, and the Emergency Management Office of the results, all of the offices initiated corrective actions.

We subsequently verified corrective actions were completed for the following:

- All 7 items with incorrect class codes by OIT.
- All 29 items with incorrect location codes by OIT.
- All 5 items with incorrect location codes by the Office of Traffic Engineering and Operations.
- All 4 items with incorrect location codes by the Office of Emergency Management.

**We recommend** the CIO ensure improper information recorded in the FLAIR property unique field conforms to the requirements of the TPP procedure.

### **Finding 3 – IT Asset Management System (ITAM)**

**We determined** OIT did not have a system in place to record, track, and manage physical hardware in a networked environment as required by Rule 74-2.002 (1), Florida Administrative Code (F.A.C.) at the time of audit fieldwork.

OIT used the FLAIR property subsystem to inventory IT assets. This system lacks the capability to discover and track hardware in a networked environment.

After we concluded our fieldwork, OIT deployed a Cherwell module to perform inventory-tracking activities. We verified the Cherwell module performs the inventory tracking activities required by Rule 74-2.002 (1).



**APPENDIX A – Purpose, Scope, and Methodology**

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The **purpose** of this engagement was to:

- Determine the department’s level of compliance with the Florida Statute 282.201 requiring migration of computing resources to the Agency for State Technology’s (AST) Data Center by:
  - Reviewing the department’s process for obtaining, documenting, tracking, and managing exemptions.
  - Verifying the exemption status of servers located in Central Office.
- Provide management with reasonable assurance as to the accuracy of the department’s physical IT asset inventory by reviewing the practices and processes in place in Central Office to inventory and manage of physical IT assets.

The **scope** of this audit included servers and network devices (firewall, switch, router etc.) located outside of the state data center in the Central Office.

The **methodology** included:

- conducting interviews;
- reviewing statutes, rules, regulations, policies, procedures, guidance, and internal processes; and
- verifying the existence of assets and accuracy of reporting.

**APPENDIX B – Management Response**

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Office of Information Technology management provided the following responses by email on January 19, 2017:

**Recommendation 1:**

We recommend the Chief Information Officer (CIO):

- Establish a documented procedure, which has elements in compliance with the statutes, governing the exemption process for servers and network devices. The procedure should include the process for obtaining exemptions from AST and retention of supporting documentation; and
- Obtain exemptions or properly dispose of the identified nonexempt servers located in Central Office.

Response:

- We concur with the findings and recommendations. The OIT will develop a method and practice that outlines the process for servers and network devices exemptions to include the process for obtaining exemptions from the AST. This shall be completed by June 30, 2017.
- We concur with the findings and recommendations. The OIT will ensure that documentation of exemptions received from the AST are documented and will properly dispose of the identified nonexempt servers located in Central Office. This shall be completed by June 30, 2017.

**Recommendation 2:**

We recommend the CIO ensure improper information recorded in the FLAIR property unique field conforms to the requirements of the TPP procedure.

Response:

We concur with the findings and recommendations. The OIT will ensure that the property unique field includes the name of the individual assigned the hardware as required by the Office of the Comptroller's Tangible Personal Property Procedures. This shall be completed by June 30, 2017.

**Recommendation 3:**

No response required.

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Office of Structures Design management responded by email on February 8, 2017 with no comments regarding the report.

Emergency Management Office management responded by email on February 8, 2017 with no comments regarding the report.

Office of Maintenance management responded by email on February 8, 2017 with no comments regarding the report.

Office of Traffic Engineering and Operations management responded by email on February 10, 2017 with no comments regarding the report.

## **APPENDIX C – Criteria**

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Section 282.201, F.S., State data center. — The state data center is established within the Agency for State Technology and shall provide data center services that are hosted on premises or externally through a third-party provider as an enterprise information technology service. The provision of services must comply with applicable state and federal laws, regulations, and policies, including all applicable security, privacy, and auditing requirements.

(5) (b) Exceptions to the limitations in subparagraphs (a)1., 2., 3., and 5. may be granted by the Agency for State Technology if there is insufficient capacity in the state data center to absorb the workload associated with agency computing services, if expenditures are compatible with the standards established pursuant to s. 282.0051, or if the equipment or resources are needed to meet a critical agency business need that cannot be satisfied by the state data center. The Agency for State Technology shall establish requirements that a state agency must follow when submitting and documenting a request for an exception. The Agency for State Technology shall also publish guidelines for its consideration of exception requests. However, the decision of the Agency for State Technology regarding an exception request is not subject to chapter 120.

Rule 74-2.002, F.A.C., (1) Asset Management. Each agency shall ensure that IT resources are identified and managed. Identification and management shall be consistent with the IT resource's relative importance to business objectives and the organization's risk strategy. Specifically, each agency shall:

- (a) Ensure that physical devices and systems within the organization are inventoried and managed (ID.AM-1).
- (b) Ensure that software platforms and applications within the organization are inventoried and managed (ID.AM-2).

Department Procedure No. 350-090-310, Tangible Personal Property (TPP), defines requirements regarding proper accountability and financial reporting related to tangible personal property (property) within the Florida Department of Transportation (FDOT). FDOT records two types of property in the FLAIR Property Subsystem:

- Standard property typically valued at \$1,000 or more
- Exception property with a value of less than \$1,000

The following are the sections applicable to the property inventory requirements:

- Section 3.0 - surrounding the receipt of property and data entry into the FLAIR Property Subsystem.
- Section 6.0 - for the proper identification of property.
- Section 9.1 - for property record information recorded in FLAIR Property Subsystem.
- Section 10.0 - for the completion of the physical inventory of all property.

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**PROJECT TEAM**

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Engagement was conducted by:

Derek Ding, IT Auditor; and

Kim Rolfe, IT Auditor

Under the supervision of:

Denise Mottesheard, IT Audit Supervisor

Joseph W. Gilboy, Audit Manager

Kristofer B. Sullivan, Director of Audit

Approved by: Robert E. Clift, Inspector General

**STATEMENT OF ACCORDANCE**

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The department's mission is to provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities.

The Office of Inspector General's mission is to promote integrity, accountability, and process improvement in the Department of Transportation by providing objective, fact-based assessments to the DOT team.

This work product was prepared pursuant to section 20.055, Florida Statutes, in accordance with the Association of Inspectors General *Principles and Standards for Offices of Inspector General*, and conforms with The Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

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