

STATE OF FLORIDA AUDITOR GENERAL

Operational Audit

AGENCY FOR STATE TECHNOLOGY

State Data Center Cost Allocation Processes



Sherrill F. Norman, CPA
Auditor General

Executive Director of the Agency for State Technology

The Agency for State Technology is established by Section 20.61, Florida Statutes. The head of the Agency is the Executive Director and the State's Chief Information Officer who is appointed by the Governor and subject to confirmation by the Senate. Jason M. Allison served as Executive Director and the State's Chief Information Officer during the period of our audit.

The team leader was Frank Belt, CPA, and the audit was supervised by Jane Flowers, CPA.

Please address inquiries regarding this report to Matthew Tracy, CPA, Deputy Auditor General, by e-mail at matthewtracy@aud.state.fl.us or by telephone at (850) 412-2922.

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AGENCY FOR STATE TECHNOLOGY

State Data Center Cost Allocation Processes

SUMMARY

On July 1, 2014, the Agency for State Technology (AST) was established and the Northwood Shared Resource Center (NSRC) and the Southwood Shared Resource Center (SSRC) were transferred to the AST. This operational audit of the AST focused on State Data Center cost allocation processes. The audit also included a follow-up on finding No. 1 noted in our report No. 2015-005 related to the NSRC and SSRC. Our audit disclosed the following:

State Data Center Cost Allocation Processes

Finding 1: The AST was unable to provide documentation to support the statistical utilization data used to allocate certain indirect costs to customer entities and the data used by the AST to allocate indirect costs did not always agree with AST records.

Finding 2: Contrary to State law, the AST did not provide each customer entity the projected costs of providing State Data Center services.

Finding 3: Certain M-PWR application¹ security controls related to the appropriateness of access privileges, monitoring of security events, and user authentication needed improvement to ensure the integrity and availability of AST data and the M-PWR application.

BACKGROUND

Effective July 1, 2014, the Legislature established the Agency for State Technology (AST) and, pursuant to State law,² AST powers, duties, and functions include developing and publishing information technology (IT) policy for the management of the State's IT resources, overseeing the State's essential IT projects, and managing the State Data Center. The Executive Director of the AST serves as the State's Chief Information Officer and is responsible for, among other things, State Data Center operations.

In establishing the AST, it was the Legislature's intent to create an entity that would provide utility data processing services to State agencies and to transfer the Northwood Shared Resource Center and Southwood Shared Resource Center to the State Data Center consisting of two physical locations, AST-North and AST-South.³ In March 2016, AST management became aware of mold and other environmental problems in the Northwood Centre where AST-North was located. Subsequently, proviso language in the 2016-17 General Appropriations Act⁴ provided for the immediate relocation of the AST-North and all of its staff, equipment, and operations from the Northwood Centre by June 30, 2016.

¹ The M-PWR application is an integrated set of configurable financial and business management software tools provided by an outside vendor.

² Section 282.0051, Florida Statutes.

³ Chapter 2014-221, Laws of Florida.

⁴ Chapter 2016-66, Laws of Florida.

As a result, the AST consolidated the AST-North staff, equipment, and operations into the AST-South facility (the State Data Center) as of June 30, 2016.

Pursuant to State law,⁵ the State Data Center's duties are to:

- Offer, develop, and support services and applications defined in service-level agreements executed with its customer entities.
- Maintain performance of the State Data Center by ensuring proper data backup, data backup recovery, disaster recovery, and appropriate security, power, cooling, fire suppression, and capacity.
- Develop and implement a business continuity plan and a disaster recovery plan and, beginning July 1, 2015, and annually thereafter, conduct a live exercise of the plan.
- Enter into a service-level agreement with each customer entity to provide the required type and level of service or services.
- Be the custodian of resources and equipment located in and operated, supported, and managed by the State Data Center.
- Assume administrative access rights (privileges) to resources and equipment, including servers, network components, and other devices consolidated into the State Data Center.

The AST reported that, as of December 31, 2016, the State Data Center provided IT services to 34 customer entities consisting of State agencies, municipal and county governments, a judicial branch entity, special districts, and other governmental entities as well as nonprofit entities that contract with the State Data Center for IT services. For the 2015-16 fiscal year,⁶ the Legislature appropriated \$71,229,157 to the AST and authorized 241 positions.

FINDINGS AND RECOMMENDATIONS

STATE DATA CENTER COST ALLOCATION PROCESSES

State law⁷ specifies that the AST is to provide operational management and oversight of the State Data Center, including developing and implementing cost allocation processes to recover the full direct and indirect costs of State Data Center services provided to customer entities. The AST recovered the direct and indirect costs of State Data Center services through charges to customer entities and, pursuant to State law, was to ensure that, for any fiscal year, no service or customer entity subsidized another service or customer entity. In addition, State law specifies that State Data Center cost allocation processes are to comply with applicable State and Federal regulations concerning the distribution and use of funds. Federal regulations⁸ provide that all costs and other data used to allocate costs are to be supported by formal accounting and other records needed to support the propriety of costs assigned to Federal awards.

The State Data Center operated on a cost-recovery basis whereby the AST billed customer entities each month for the portion of operating costs associated with the specific State Data Center services provided

⁵ Section 282.201(2), Florida Statutes.

⁶ Chapter 2015-232, Laws of Florida.

⁷ Section 282.0051(11), Florida Statutes.

⁸ Office of Management and Budget Circular A-87, Attachment C, State/Local-Wide Central Service Cost Allocation Plans.

to each customer. As of July 1, 2014, the AST used MAXCARS⁹ and the M-PWR application¹⁰ to administer State Data Center cost allocation and billing processes.

Monthly customer bills consisted of charges to customer entities for billable service costs that included both direct and indirect State Data Center costs. The direct costs charged to customer entities were to be based on the estimated costs of providing State Data Center services that were directly identifiable to and for the benefit of the customer. The indirect costs charged to customer entities were to be based on an allocation process that used relevant statistical measurements such as circuits per month, floor tiles per month, labor hours, gigabytes per day, kilobytes transferred, and users per month, to allocate to customers estimated indirect State Data Center costs.

The indirect cost allocation process began with a reclassification of State Data Center operational costs into cost pools by service types. As part of the process, cost pools for costs of services provided to other cost pools were deemed Central Service Department cost pools. The costs in Central Service Department cost pools were allocated to other cost pools until all costs were allocated via service charges to customer entities. After fiscal year end, an AST consultant prepared a true-up analysis to adjust the previous fiscal year's service charges, which were based on estimated direct and indirect costs, to equal the actual costs of the services provided to the customer entities. A corresponding 13th month billing adjustment was made for each customer entity to reflect the results of the true-up analysis.

Finding 1: Allocation of Indirect Costs

On a monthly basis, State Data Center managers were responsible for ensuring statistical service utilization data used for the allocation of indirect costs was accurately uploaded to the M-PWR application. Manager uploads to the M-PWR application were to be supported by Management Reports generated for each applicable service.

As part of our audit, we examined the AST-South true-up process for the 2014-15 fiscal year,¹¹ including records related to the allocation of costs from 10 of the 37 Central Service Department cost pools included in the true-up, to determine whether the Central Service Department costs were properly calculated and allocated. Our audit also included comparing the statistical service utilization data included in the available Management Reports for the 10 Central Service Department cost pools to the statistical service utilization data included in M-PWR application records and used to allocate costs. Our audit procedures disclosed that:

- For various months during the 2014-15 fiscal year, the AST was unable to provide Management Reports or other documentation to support the statistical utilization data uploaded by State Data Center managers to the M-PWR application for services such as Mainframe Storage, Unix Servers, Unix Capacity Units, Net-Based Services, Windows Managed Servers, and Windows Capacity Units. Absent documentation to support the statistical utilization data uploaded, the AST cannot demonstrate that the service charges based on the data were appropriate and supported in accordance with the requirements of State law and Federal regulations.

⁹ MAXCARS is a proprietary cost allocation tool.

¹⁰ The M-PWR application is an integrated set of configurable financial and business management software tools provided by an outside vendor.

¹¹ At the time of our audit field work, the 2015-16 fiscal year cost allocation and true-up process had not been completed.

- The data uploaded by State Data Center managers to the M-PWR application and used to allocate indirect billable service costs to customer entities did not always agree with the data included in corresponding Management Reports. For example, we noted instances where the starting and ending dates included in the M-PWR application for Oracle Services, Net-Based Services, and Distributed Storage did not agree with the dates included in the corresponding Management Reports, resulting in the services being incorrectly billed for the months of October 2014, November 2014, February 2015, March 2015, April 2015, and May 2015.

Our audit procedures also disclosed that the AST had not established policies and procedures for verifying the accuracy, validity, and completeness of the data uploaded to the M-PWR application. The absence of such policies and procedures may have contributed to the allocation issues we noted. In response to our audit inquiry, AST management indicated that they had taken actions to ensure that all service charges were appropriate and supported by appropriate records and were in the process of establishing policies and procedures to address the verification of data uploads. Management's actions to correct the noted deficiencies will be evaluated in future audits of the AST.

Recommendation: We recommend that AST management establish policies and procedures for verifying the accuracy, validity, and completeness of uploaded statistical service utilization data and ensure that the data used as the basis for customer entity service charges is supported by adequate documentation.

Finding 2: Projected State Data Center Service Costs

State law¹² requires that, by September 1 each year, the AST is provide to each customer entity head the projected costs of providing data center services for the following fiscal year. Such information is necessary for customer entities to appropriately plan and budget for State Data Center service costs.

Our audit procedures disclosed that the AST did not provide customer entities with the projected costs of providing State Data Center services for either the 2016-17 or 2017-18 fiscal years. In response to our audit inquiry, AST management indicated that the information needed to develop reliable cost projections was not available by September 1 each year. Notwithstanding management's response, the ability of customer entities to appropriately plan and budget for State Data Center service costs is limited absent the timely receipt of projected cost information.

Recommendation: To better allow customer entities to plan and budget for future State Data Center service costs, we recommend that AST management work with the Legislature to ensure that reliable projected State Data Center service cost information is timely provided to customer entities.

Finding 3: Security Controls – Appropriateness of Access Privileges, Monitoring of Security Events, and User Authentication

Security controls are intended to protect the confidentiality, integrity, and availability of data and IT resources. Our audit procedures disclosed that certain M-PWR application security controls related to the appropriateness of access privileges, monitoring of security events, and user authentication needed improvement. We are not disclosing specific details of the issues in this report to avoid the

¹² Section 282.0051(11)(c)5., Florida Statutes.

possibility of compromising AST data and the M-PWR application. However, we have notified appropriate AST management of the specific issues.

Without appropriate M-PWR application security controls related to the appropriateness of access privileges, monitoring of security events, and user authentication, the risk is increased that the integrity and availability of AST data and the M-PWR application may be compromised.

Recommendation: We recommend that AST management enhance certain M-PWR application security controls related to the appropriateness of access privileges, monitoring of security events, and user authentication to ensure the integrity and availability of AST data and the M-PWR application.

Follow-Up to Management's Response

Although, in their written response, AST management disagreed that the integrity and availability of the M-PWR application or data was ever in danger, management also indicated that certain M-PWR application security controls had been enhanced as part of a planned upgrade and that the final enhancements were scheduled to be completed June 30, 2017. As noted in our finding, our audit procedures found that the enhancement of these security controls was necessary to reduce the risk that the integrity and availability of AST data and the M-PWR application may be compromised. We will evaluate AST management's efforts to strengthen the M-PWR application security controls in future audits of the AST.

PRIOR AUDIT FOLLOW-UP

The AST had taken corrective actions for the applicable finding included in our report No. 2015-005 (finding No. 1).

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 operational audit from March 2016 through September 2016, and performed selected audit procedures through December 2016, 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.

This operational audit of the Agency for State Technology (AST) focused on State Data Center cost allocation processes and selected administrative activities. The overall objectives of the audit were:

- To evaluate management's performance in establishing and maintaining internal controls, including controls designed to prevent and detect fraud, waste, and abuse, and in administering

assigned responsibilities in accordance with applicable laws, administrative rules, contracts, grant agreements, and guidelines.

- To examine internal controls designed and placed in operation to promote and encourage the achievement of management's control objectives in the categories of compliance, economic and efficient operations, the reliability of records and reports, and the safeguarding of assets, and identify weaknesses in those internal controls.
- To determine whether management had corrected, or was in the process of correcting, finding No. 1 disclosed in our report No. 2015-005.
- 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 those programs, activities, or functions 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 transactions, legal compliance matters, records, and controls considered.

As described in more detail below, for those programs, activities, and functions included within the scope of our 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 our audit; obtaining an understanding of the program, activity, or function; 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 transactions and records. Unless otherwise indicated in this report, these transactions and records 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:

- Obtained an understanding of selected information technology (IT) controls for the M-PWR application, assessed the risks related to those controls, evaluated whether selected general and application IT controls were in place, and tested the effectiveness of the controls.
- Reviewed applicable laws, rules, Federal regulations, and other guidelines to gain an understanding of the requirements for allocating State Data Center costs to customer entities.
- Performed inquiries of AST personnel and reviewed AST and AST consultant documents and records to determine whether AST processes and controls for preparing the AST-South cost

allocation and true-up for the 2014-15 fiscal year were adequately designed and effectively implemented.

- Performed inquiries of AST management and evaluated AST procedures to determine whether AST management had established adequate procedures to prepare the AST-South cost allocation and true-up for the 2014-15 fiscal year in accordance with applicable laws, rules, Federal regulations, and other guidelines.
- Examined AST and AST consultant records related to certified forward adjustments to the AST-South cost allocation and true-up for the 2014-15 fiscal year to determine whether the adjustments were appropriate and reconciled to corresponding AST accounting records.
- Examined AST and AST consultant records related to the balances included in the *Reconciliation of Fiscal Year 2014-2015 Actual FLAIR Expenditures to Costs Allocated in Rate Model* schedule for the AST-South cost allocation and true-up for the 2014-15 fiscal year to determine whether reconciling items were appropriately treated and adequately supported.
- Performed inquiries of AST management and examined documents and records to determine whether the AST-South cost allocation and true-up for the 2014-15 fiscal year was properly approved by an appropriate level of management.
- Examined AST and AST consultant records related to the AST-South cost allocation and true-up for the 2014-15 fiscal year, including records related to the allocation of costs from 10 of the 37 Central Service Department cost pools included in the true-up, to determine whether the service costs were properly calculated and allocated.
- From the population of 36 State Data Center customer entities that received 468 invoices for State Data Center services received during the 2014-15 fiscal year, examined AST records for the 12 monthly invoices and final 13th month true-up invoice for 11 State Data Center customer entities (143 invoices in total) to determine whether invoiced rates were in agreement with the rates derived from the cost allocation process, invoiced services were properly agreed upon, invoiced amounts were mathematically correct, the final 13th month true-up invoice agreed with year-end true-up computations, invoiced amounts were timely collected, collections were properly accounted for, and the total amounts invoiced equaled the actual allocated costs for the services provided to the customer entity.
- From the population of 18,924 expenditures, totaling \$88,443,551, made during the period July 2014 through February 2016, examined AST records related to 36 expenditures, totaling \$232,667, to determine whether the expenditures were properly authorized, supported, reviewed, recorded in the Florida Accounting Information Resource Subsystem (FLAIR), and made in accordance with applicable laws, rules, and AST policies and procedures. For 5 other expenditures, totaling \$172,246, we examined AST records to determine whether the expenditures were properly recorded in FLAIR and made in accordance with applicable laws, rules, and AST policies and procedures.
- Inquired of AST management and examined AST records for the period July 1, 2014, through September 12, 2016, to determine whether the AST established the positions specified in Section 20.61(2), Florida Statutes, and a Technology Advisory Council in accordance with Section 20.61(3), Florida Statutes.
- Inquired of AST management and examined AST records to determine whether the AST complied with selected duties and functions specified in Section 282.0051, Florida Statutes.
- From the population of 100 AST employees for whom a personnel action request was initiated during the period July 2014 through February 2016, examined AST records related to 22 employees to determine whether AST records evidenced that the employees satisfied the position requirements described in applicable AST position descriptions.

- From the population of 21 staff contractors under contract with the AST as of January 26, 2016, examined AST records related to 3 staff contractors to determine whether AST records evidenced that the contractors satisfied the requirements specified by contract terms.
- Observed, documented, and evaluated the effectiveness of selected AST processes and procedures for:
 - Budgeting, cash management, purchasing, FLAIR user access privileges, and financial reconciliations.
 - The administration of purchasing cards in accordance with applicable guidelines. As of February 29, 2016, the AST had 25 active purchasing cards.
 - The assignment and use of wireless devices with related costs totaling \$74,275 during the period July 2014 through June 2015.
 - The administration of travel in accordance with State law and other applicable guidelines. During the period July 2014 through June 2015, AST travel expenditures totaled \$31,659.
 - The administration of AST contracts in accordance with applicable guidelines. As of February 29, 2016, the AST was responsible for 6 active contracts totaling \$64,919,324.
 - The administration of tangible personal property and sensitive and attractive property items in accordance with applicable guidelines. As of December 31, 2015, the AST was responsible for tangible personal property and sensitive and attractive property items with related acquisition costs totaling \$54,142,208.
- 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, requires that the Auditor General conduct an operational audit of each State agency on a periodic basis. Pursuant to the provisions of Section 11.45, Florida Statutes, I have directed that this report be prepared to present the results of our operational audit.



Sherrill F. Norman, CPA
Auditor General

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MANAGEMENT'S RESPONSE



State of Florida Agency for State Technology

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Rick Scott, Governor

Eric M. Larson
Interim State CIO/Executive Director

June 7, 2017

Sherrill F. Norman, CPA
Auditor General
Claude Denson Pepper Building, Suite G74
111 West Madison Street
Tallahassee, Florida 32399-1450

Dear Ms. Norman:

Pursuant to section 11.45(4)(d), Florida Statutes, attached is the Agency for State Technology's (AST) response to the preliminary and tentative audit findings and recommendations for the operational audit of the State Data Center Cost Allocation Processes.

AST appreciates the patience, time and energy put forth by your staff to improve the operations of state government and provides responses to the findings and recommendations in the preliminary and tentative report.

If you have any questions concerning AST's response, please contact Tabitha McNulty, Inspector General, at 850-412-6022.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eric M. Larson', written in a cursive style.

Eric M. Larson
Interim State CIO/Executive Director

EL:tam

Attachment

cc: Curtis Unruh, Deputy Executive Director
Kevin Wiggins, Interim Chief Information Security Officer
Sharon Bradford, Chief of Financial Operations
Tabitha McNulty, Inspector General

**Agency for State Technology
Corrective Action Plan to the
Preliminary and Tentative Audit Findings and Recommendations
*Operational Audit of the Agency for State Technology
State Data Center Cost Allocation Process***

Finding #	1
Finding Title	Allocation of Indirect Costs
Finding Statement	The AST was unable to provide documentation to support the statistical utilization data used to allocate certain indirect costs to customer entities and the data used by the AST to allocate indirect costs did not always agree with AST records.
Contact Person	Sharon Bradford
Program/Unit	Financial Management
Recommendation	We recommend that AST management establish policies and procedures for verifying the accuracy, validity, and completeness of uploaded statistical service utilization data and ensure that the data used as the basis for customer entity service charges is supported by adequate documentation.
Program Response	Based on recommendations from this finding, the AST has established policies and procedures for verifying the accuracy, validity, and completeness of uploaded statistical service utilization data to ensure the data used as the basis for customer entity service charges is supported by adequate documentation.

Finding #	2
Finding Title	Projected State Data Center Service Costs
Finding Statement	Contrary to State law, the AST did not provide each customer entity the projected costs of providing State Data Center services. Section 282.0051(11)(c)5, Florida Statutes, requires that, by September 1 of each year, the AST is to provide to each customer entity head the projected costs of providing data center services for the following fiscal year.
Contact Person	Sharon Bradford
Program/Unit	Financial Management
Recommendation	To better allow customer entities to plan and budget for future State Data Center service costs, we recommend that AST management work with the Legislature to ensure that reliable projected State Data Center service cost information is timely provided to customer entities.
Program Response	<p>In order to provide meaningful and accurate projections, the AST has delayed providing this information until the data was available.</p> <p>The AST will continue to work with stakeholders in the Legislature related to this requirement. In the upcoming legislative session, the AST will recommend an amendment to section 282.0051(11)(c)5, Florida Statutes, to ensure the statutory language relating to informing agencies the costs of data center services is current and achievable.</p> <p>To remediate this finding, AST will provide draft projections by the statutorily required date.</p>

Finding #	3
Finding Title	Security Controls – Appropriateness of Access Privileges, Monitoring of Security Events, and User Authentication
Finding Statement	Certain M-PWR application security controls related to the appropriateness of access privileges, monitoring of security events, and user authentication needed improvement to ensure the integrity and availability of AST data and the M-PWR application.
Contact Person	Sharon Bradford
Program/Unit	Financial Management
Recommendation	We recommend that AST management enhance certain M-PWR application security controls related to the appropriateness of access privileges, monitoring of security events, and user authentication to ensure the integrity and availability of AST data and the M-PWR application.
Program Response	<p>The AST has enhanced certain M-PWR application security controls related to the appropriateness of access privileges, monitoring of security events, and user authentication for the M-PWR application. The final enhancements are scheduled to be completed June 30, 2017.</p> <p>Although the strengthening of these controls is included within a planned upgrade provided by the application vendor, the AST disagrees that the integrity and availability of the application or data was ever in danger.</p>