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Introduction

Rausch Advisory Services (Rausch) was engaged by the Office of Internal Compliance of Atlanta Public Schools (APS) to complete an Information Technology (IT) Lawson ERP Post-Implementation Review. Rausch performed the review between April 1, 2020 through July 30, 2020. The executive summary included below identifies the objectives, scope, and observations of the engagement. A background section was provided to help explain the four-year long project. Finally, the results of our audit activities are identified in the Findings and Recommendations section.

We conducted this audit in accordance with auditing practices to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We used recommended best practices and controls identified by ISACA as a basis to compare APS processes. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We limited our work to those areas specified in the “Audit Objective, Scope, and Methodology” section of this report.

Executive Summary

Rausch reviewed the activities performed to implement and upgrade the Lawson Enterprise Resource Planning (ERP) system. APS policies and procedures governing the project management activities were also reviewed. Based on our interviews, observations, reviews of documentation and review of previous assessments performed, Rausch’s evaluation identified three areas for improvement: information system selection, cost tracking, and disaster recovery preparations. Details about each area are included in our Observations, Recommendations and Management Response section below.

While our review noted issues and process improvement opportunities, we also noted several decisions and actions taken by the APS project team that are commendable.

- ✓ APS established a steering committee at the project’s inception involving the key stakeholders and decision makers from Human Resources, Finance, and Information Technology. This committee facilitated project communications to management and continues to meet.
- ✓ APS IT took corrective action after issues with the GHR (Global Human Resources) implementation were identified. While this decision did cause a delay in the project, the stabilization efforts corrected configurations and functionality that were not properly implemented by Infor many of which required additional manual activities to perform routine business functions.
- ✓ APS leveraged Infor testing templates as a basis for developing test scripts and involved both business and IT personnel in test planning and execution. This ensured relevant functions were addressed.

Background

APS has used the Infor Lawson software to manage Human Resource and finance activities since 2002. In 2015, the Lawson Implementation/Upgrade project was started because the existing system's hardware and software was no longer supported by the vendors.

As stated in the project charter, "The current version, 9.0.1.12.204 is substantially outdated and an upgrade would be required for APS to take advantage of the functionality required to support the strategic business need of the District." In addition to the application, the hardware and operating systems were also outdated or obsolete (no longer supported by the vendor). Security updates could no longer be applied. Changes included moving from UNIX to Windows operating systems and from Oracle to SQL databases.

The project moved the on-premises version 9 of Lawson S3 ERP system (GHR and Finance modules) to the Cloud version 10 Infor/Lawson S3 ERP System.

The project was expected to deliver four phases:

- Phase I** Global Human Resources (GHR) Implementation in the Infor Cloud
- Phase II** Strategic Sourcing, Contract Management, Punch-out & Supplier Order Management Implementation in the Infor Cloud
- Phase III** S3 Upgrade & Migration to the Infor Cloud
- Phase IV** Lawson Talent Management Goal Management, Learning and Development and Performance Management, Teacher Contract Pay Administration & Infor Dynamic Enterprise Performance Management (D/EPM) Implementation in the Cloud

The original project timeline indicated all project activities would take 28 weeks and be completed by July 2017. After the GHR implementation, many functions were not operating as expected and some interfaces were not working. In July 2017, APS IT engaged a third-party, RPI, to evaluate the implementation and propose a roadmap for future activities including addressing the issues experienced in the GHR implementation. RPI recommended a GHR stabilization activity and the implementation of the FinPRO V10 Upgrade and Talent Management. RPI recommended the d/EPM & Strategic Sourcing implementation to be put on hold.

The initial expectation for the S3 implementation was a lift-and-shift (migrating the application and associated data to the Cloud with minimal or no changes). The APS Project Team, however, learned there were over 700 customizations that had to be addressed prior to moving to the new application version. APS evaluated these customizations and coded approximately 600 of these into the new environment.

Subsequent to the start of the project Infor introduced new environments: Cloud and CloudSuite. Within CloudSuite environment there are two options: single and multi-tenant. The APS implementation was to the single tenant cloud version, version 10. The next available version (version 11) is a multi-tenant cloud environment. In this environment, no customizations are permitted. It is expected that APS will be

required to move to the multi-tenant environment within the next 2-3 years. APS customizations will need to be removed prior to this change.

Objective, Scope, and Methodology

The objectives of the ERP Post-Implementation Review were to provide APS with a high level of assurance that APS had effectively managed the activities to implement and upgrade the organization's enterprise resource planning solution. Specifically, the objectives were to:

- Determine if the project goals as stated by the Client/Project Sponsor or Owner and the Project Team were achieved.
- Determine if the stated Return on Investment was achieved.
- Determine if the system was implemented with the appropriate security considerations.
- Determine if the PMO process was effective. Was the project completed on time, on budget, and according to specifications and business needs.

To meet our objectives, we reviewed various project documentation and interviewed APS Business and IT personnel to gain an understanding of the current processes. The following is a list of key interviews we conducted during our review:

- ✓ Lisa Bracken, Chief Financial Officer
- ✓ Skye Duckett, Chief Human Resources Officer
- ✓ Olufemi Aina, Executive Director, Information Technology
- ✓ Rodolfo Fitzgibbons, Program Manager
- ✓ Cathy Rollins, Director IT Project Management Office
- ✓ Sandra Burgess, Executive Director Payroll
- ✓ Carrie Roberts, Executive Director Purchasing

Through the course of the review, Rausch identified gaps within the processes and documented policies and regulations and has provided recommendations to address risk associated with information system implementation activities. These are included in our Observations section below.

Conclusion

Only one of the four audit objectives was confirmed without issue. Audit did not identify any issues regarding the security technologies or the management of these technologies. The Software-As-A-Service (SaaS) provider, Infor, is responsible for many of the security activities and technologies that support the ERP environment. During the audit, APS IT Security was conducting a review of Infor's SOC2 audit report to confirm the necessary security controls were in place and were operating effectively.

Not all project goals were met. Audit procedures were unable to determine if a Return on Investment

was achieved as we noted the lack of clearly defined project cost tracking in Issue #2.

The project exceeded the initial implementation schedule and not all intended modules were implemented. Table 1 below shows the actual implementation timeframes and status against the planned phases. In some cases, solutions were not implemented, in other cases alternate solutions were implemented or are currently being pursued.

Table 1

Planned Phase	Product/Functionality	Status
Phase I	Global Human Resources (GHR) Implementation in the Infor Cloud	Implemented in Infor Cloud 12/2016
Phase I	GHR Stabilizations	Implemented in 3/2017
Phase I	Infor Patches Applied (GHR)	Implemented in 10/2017
Phase II	Strategic Sourcing	Not Implemented
Phase II	Contract Management	Not Implemented
Phase II	Punch-out & Supplier Order Management Implementation in the Infor Cloud	Not Implemented
Phase II	Infor S3 Security in v10	Implemented in CloudSuite 11/2019
Phase III	GHR and S3 Upgrade & Migration to the Infor CloudSuite	Implemented in CloudSuite 11/2019
Phase IV	Lawson Talent Management Goal Management	Implemented in 2017; Replaced with PowerSchool in 2018
Phase IV	Learning and Development and Performance Management	Implemented in 2017; Replaced with PowerSchool in 2018
Phase IV	Teacher Contract Pay Administration	Not Implemented
Phase IV	Infor Dynamic Enterprise Performance Management (D/EPM)	Not Implemented

Lastly, a third party was required to stabilize the first phase of the implementation (Global Human Resources module) citing misconfigurations by the implementation vendor and identifying functions that were not operating at all. While stronger, more effective project management processes may have prevented some or all of these issues, we believe that processes and activities that provide information to the project were not sufficient.

Observations, Recommendations and Management Response

Risk Level Key

-  **High Risk:** Matters and/or issues are considered to be fundamental to the mitigation of material risk, maintenance of internal control or good corporate governance. Action should be taken either immediately or within three months.

-  **Medium Risk:** Matters and/or issues are considered to be of major importance to maintenance of internal control, good corporate governance, or best practice for processes. Action should normally be taken within six months.
-  **Low Risk:** A weakness which does not seriously detract from the internal control framework. If required, action should be taken within 6 -12 months.
-  **Informational:** The identified Informational level findings are not considered risk but may contain valid and useful information that may aid APS with process improvement.

The table below summarizes the observations, the potential risk level and when management anticipates corrective action to be implemented. Details on the steps required to address the observation is provided in the “Recommendation” section for each item.

Observations Table

Number	Observation	Risk Level	Est. Completion Date
1.	Business Processes to select Information Systems to support key business functions and activities were not effective	High	March 2021/June 2021
2.	Inadequate Project Budget and Cost Tracking	High	June 2021
3.	The Disaster Recovery Plan has not been updated to reflect the new implementations	Medium	October 2020

The observations of our review along with our recommendations for process improvement with management’s response and implementation timeline are presented on the following pages.

1. Business Processes to select Information Systems to support key business functions and activities were not effective. 

Finding

A process that defined business requirements and evaluated one or more systems to determine if the selected system provided the functionality to support the business needs and activities was not identified for the Lawson implementation. Furthermore, evidence suggests the solution purchased does not adequately meet business needs.

- Over 600 customizations were needed for the Lawson system to support the APS business functions and activities. This large number of customizations suggests the Lawson system may not closely align with the current business processes.
- Although included in the project charter and the initial implementation proposal (Infor Value Engineering June 2014), Purchasing and Budget functions were not implemented. Separate

solutions are currently being sought as the Lawson capabilities were deemed insufficient to support APS' business needs.

- The Lawson Talent Management/Goal Management and the Learning, Development, and Performance Management modules were implemented in 2017 but replaced with PowerSchool in 2018, citing the Lawson products did not meet the business needs.

Evidence of strategic information system planning was not found.

In 2015, this upgrade project was created because the existing system's hardware and software were no longer being supported by the vendors. Now, after the November 2019 implementation, APS again finds itself in a must-upgrade situation. The decision was made to code 600+ customizations into the new environment. While customizations are not uncommon, they are not consistent with the strategic decision to move to Software-as-a-Service or otherwise vendor operated cloud information systems. This customization required a significant consulting effort. The vendor has already announced the next version and is requiring all customers to move to this version within the next 2 ½ years. For APS to move to this new version, the customizations will need to be removed. This will not only require additional consulting effort but will also require a review of the business processes to determine the impact and to identify workarounds where Lawson functionality cannot support the business needs or acquire additional systems.

To date, APS has not identified funding to accomplish these activities.

Risks

Information systems may not provide needed functionality to perform standard and / or required business tasks.

Funding may not be available to maintain information systems.

Recommendation

APS should develop organizational processes to select information technology systems. Processes should be driven by the Business Units with support received from Information Technology, when appropriate, and should address system selections currently in progress and future efforts. Coordination with vendors of selected solutions should be considered to ensure the vendor's planned system roadmap aligns with APS' needs.

At a minimum, these processes should ensure:

- ✓ The solutions are effectively evaluated for alignment with current and future business needs and processes.
- ✓ IT is consulted for security, compatibility, and ongoing support needs.
- ✓ Obsolescence is avoided by planning reasonable time frames and activities for system replacement or retirement or at a minimum, evaluation.

- ✓ Funding is available for the full lifecycle of the systems including licensing, ongoing support, and upgrade activities.
- ✓ System replacement/retirement expectations should be documented for existing key systems.

Management's Implementation Plan

Specifically, for the Lawson ERP, engage the services of a consultant firm to conduct a full assessment of the existing Lawson S3 v10 product to:

- (1) Determine the cost-benefit of a potential change in platform to another ERP product.
- (2) Develop a roadmap for a migration to v11 in the cloud with 'zero' customizations.
- (3) Conduct a gap analysis between the current cloud version v10 and the new cloud version v11 with a view towards 'undoing' all customizations.

In general, for the selection of future major information systems to support business functions:

- (1) Establish a Sr. Cabinet review and approval process.
- (2) Identify potential impact to all business functions and funding support (multi-year funding – if necessary).

Anticipated Completion Date

March 2021; June 2021

Responsible Party

Lisa Herring, working with Jerod Bishop, Lisa Bracken, Skye Duckett, Bill Caritj, and Olufemi Aina

2. Inadequate Project Budget and Cost Tracking

Finding

Investing in an ERP system and benefiting from the return on investment (ROI) over a period can help an organization reduce overall operating costs, increase productivity, and utilize features that automate routine business tasks. The ERP implementation, however, with the many integrated tasks is a very complex and costly effort and can put a strain on the organization financially as well as overtax the resources responsible for performing implementation activities in addition to their functional tasks. Therefore, it is critical for an organization to understand the ROI and to measure expected benefits that can be achieved after implementation to determine if the ERP implementation is justified from both a financial and functional point of view.

Unlike most large projects at APS, a program was not established to budget and track the total cost of ownership for the Lawson ERP implementation. As no program was established, project, support, and general IT costs are intermingled with implementation costs. Generally, a program at APS would have established estimates of revenue and expenses over a specified period of time, earmarked resources, measured outcomes, and would allow for the planning for contingencies.

The Global Human Resources (GHR) implementation and Financial (S3) Lawson upgrade was funded with SPLOST and general funds, with the most recent implementation activities funded from the overall IT budget. In addition, funding for planned future activities, including rolling back customizations needed to move to the required upgrade, has not been approved.

Risk

Funding may not be available to maintain information systems.

Recommendation

APS should:

- Define a program and budget for remaining Lawson implementation/upgrade activities
- Ensure project methodology ensures programs are established in accordance with defined criteria
- Consider adding a control to prevent payment for project activities when programs are not established

Management's Implementation Plan

- (1) Create a dedicated program and request funding in FY21 for ERP program.
- (2) Establish a short-term funding plan for FY21 (in-progress).
- (3) Plan and budget a long-term (multi-year) funding strategy for the upgrade program.
- (4) Explore the use of budget Activities to track SPLOST project expenditures

Anticipated Completion Date

Item 1 - Completed March 2020

Item 2 – October 2020

Items 3 & 4 – June 2021

Responsible Party

Lisa Bracken, working with Bill Caritj and Olufemi Aina

3. The Disaster Recovery Plan has not been updated to reflect the new implementations 

Finding

APS has a Disaster Recovery Plan (DRP) that addresses the Lawson system: however, the current version of this plan does not appear to include instructions appropriate for an application in the cloud. The plan includes a provision to revise annually which would be before or by September 2020.

On 6/18/2020, Audit received confirmation that the Disaster Recovery Plan has not been updated. IT indicated the plan would be updated by the end of 2020.

On 7/17/2020, Audit discussed the issue with IT and learned the plan was being updated. IT provided draft versions of IT Disaster Recovery Incident Response Plan_Jul2020 and the Disaster Business Plan Jul2020 (business impact analysis). Audit reviewed both documents and confirmed the updates addressing the Lawson system are in progress. Both documents are in draft and are in the document review process.

Risk

APS may not be prepared to restore information systems within the timeframes needed to support business activities.

APS and third-party roles and responsibilities may not be consistently understood.

Recommendation

APS should continue the updating of the Disaster Recovery Plan to address the changes in the Lawson application. Additionally, IT should conduct a tabletop exercise to ensure the plans are adequate and participating resources understand their roles and responsibilities.

Management's Implementation Plan

Update DR and BIA documents (in-progress).

Anticipated Completion Date

October 2020

Responsible Party

Olufemi Aina