Audit of SAP Software Solutions – Deloitte Consulting Service Contract

May 1, 2023

Mark S. Swann, City Auditor

City of Dallas

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Executive Summary

Objective and Scope

The objectives of this audit were to validate if:

- Third-party provider risk management is evaluated.
- Contracting with a third-party is cost-efficient.
- City is examining the vendor for services rendered (compliance), quality (documentation), and accountability (monitoring).
- Vendor contract billings are accurate.

The audit scope was from October 2018 through March 30, 2022.

Recommendations

Management should:

- Develop procedures for third-party provider risk management, regular application and database license audits, and other monitoring activities.
- Perform periodic analysis of cost efficiency for outsourced services.
- Develop procedures for invoicing technology contracts.
- Incorporate contractual changes as contracts are renewed.

Background

SAP Software Solutions is used by 14 City departments to collect about $1.1 billion in revenues annually. Dallas Water Utilities and Information & Technology Services are responsible for SAP Software Solution's continuity, availability, integrity, and confidentiality of data.

In March 2013, both departments outsourced daily operational activities to Deloitte for application-managed services and a hosted infrastructure provided by a subservice organization, NTT Managed Services Americas.

In March 2020, the City used the first of two renewals to extend the contract to March 2022 for $12,292,440. In March 2022, the City used the second two-year renewal to extend the contract to March 2024 for $10,832,200.

Both departments committed to regularly validating vendor services, billing accuracy, and reducing supply chain risk.

Observed Conditions

A third-party risk management policy to address performance, continuity of services, and cybersecurity risk of vendors and their subservice organizations is not in place.

Analysis of contract performance and cost efficiency are not available.

A long-standing relationship with the vendor, dated service level agreements, and imprecise, incoherent documentation of contract provisions reduced the quality and accountability of vendor services.

Internal procedures for invoice payment verification for technology contracts are informal.

Objectives and Conclusions

1. Is Information & Technology Services evaluating third-party risk?

   Indeterminable. The Deloitte contract does not address risks of vendor's responsibility for their subservice organization and significant use of offshore services for application managed services. No service interruptions have been noted. Currently, there is no established third-party risk management policy to address performance, continuity of services, and cybersecurity risk of vendors and their subservice organizations. (See Observation A.)

2. Is contracting with a third-party efficient for these services?

   Indeterminable. Cost savings could not be identified because reporting metrics do not match service-level agreement metrics. Cost efficiency analysis cannot be completed because there needs to be clarity on resource, infrastructure, or application needs moving forward. (See Observation B.)

3. Is the City monitoring the vendor for services rendered (compliance), quality (documentation), and accountability (monitoring)?

   Generally, yes. Information & Technology Services and Dallas Water Utilities management are aware of the services being rendered and use professional judgment to escalate incidents. The contract has been in place since 2013 and a long-standing relationship with the vendor, dated service level agreements, and imprecise, incoherent documentation of contract provisions reduced the quality and accountability of vendor services over time. (See Observation C, Observation D, Observation E.)

4. Are contract billings accurate?

   Generally, yes. All test invoices were traced to contracted amounts and all test financial transactions in the AMS Advantage Financial accounting application matched invoices and contract amounts. However, current internal processes for contract billing verification are informal. There are no Standard Operating Procedures for technology contracts. (See Observation C, Observation D, Observation E).

Audit Results

Both *City Council Resolution 88-3428* and Administrative Directive 4-09, *Internal Control* prescribe policy for the City to establish and maintain an internal control system. The audit observations listed are offered to assist management in fulfilling their internal control responsibilities.

Observation A: Third-Party Provider Risk Management

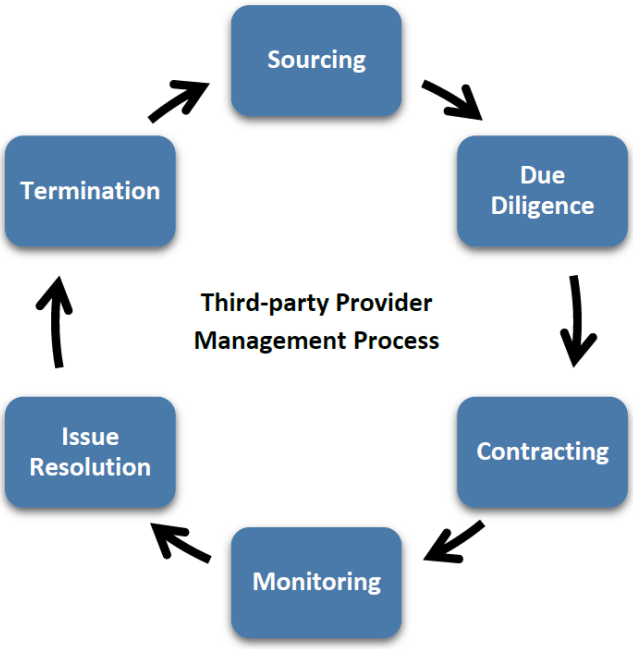
A third-party provider risk management policy is not in place. Third-party provider risk management policy elements are to:

- Establish a comprehensive inventory of third-party providers in the City.
- Evaluate how far down the supply chain third parties should be considered (e.g. fourth-parties such as NTT Americas and offshore by Deloitte).
- Assess, manage, and monitor ongoing contract services.
- Respond and complete recovery and planning and testing.

If a third-party provider fails to perform as contracted or suffers its own unfortunate events, the City cannot escape blame including financial penalties.

Exhibit 1:

The Elements of Third-party Provider Management Processes



Source: International Professional Practices Framework, Supplemental Guidance, *Auditing Third-party Risk Management, Figure 4*

For example, a review of all user accounts used in Fiscal Year 2020 for the incident, change, and service requests identified eleven system-level generic accounts and 19 vendor user accounts. Out of 19 vendor user accounts, 13 user accounts serviced less than 20 tickets over the course of Fiscal Year 2020. Most noted observations belonged to vendor offshore services and could indicate a rotating roster of vendor personnel whose access is not vetted, exposing the City to additional security risks. These same individuals can contribute to additional cost for software and database license costs with a rotating roster.

Criteria

- International Professional Practices Framework (IPPF) Practice Guide, *Auditing Third-party Risk Management*
- National Institute of Standards and Technology, *Cybersecurity Security Framework -Supply Chain*
- Standards for Internal Control in the Federal Government, *Principle 10 – Design Control Activities*

Assessed Risk Rating:

High

We recommend the **Director of Information & Technology Services:**

A.1: Develop a third-party provider risk management policy that inventories at a minimum mission essential function provider, incorporates cybersecurity, continuity of operations, and regular disaster recovery testing for all outsourced procurements.

Observation B: Cost Efficiency

Opportunities for cost savings could not be identified. An estimate by the Office of the City Auditor for Fiscal Year 2020, indicates that $60,000 could have been recovered for untimely resolution, $1,000 for missing root cause analysis, $500 for poor documentation on a change ticket.

Part of why the cost recovery could not be finalized was the disparity between the metrics on the report provided by Deloitte and the metrics stated in the *City of Dallas Support Delivery Manual 2013*. The report provided by Deloitte on incident management and resolution is measured in days, while the *City of Dallas Support Delivery Manual 2013* service level agreement on cost recovery measures in hours. Since the reported metric is in days and service metrics are in hours, the delays in resolution time for incident and service requests cannot be correlated.

Further research into the total cost of the SAP application services suggests that the City may need a comprehensive review of the cost to identify potential cost savings. Exhibit 2 shows the auditor's estimate for the total cost of SAP for 2020 and 2021.

Exhibit 2:

Total Estimated Cost of SAP Application Services

Cost-Type	April 1, 2020 – March 31, 2021		April 1, 2021 – March 30, 2022	
	Budget	**Actual**	**Budget**	**Actual**
Managed Services	$ 3,693,720	$ 3,693,720	$ 3,693,720	$ 3,693,720
Project Fees*	2,452,500	1,131,162	2,452,500	771,364
Oracle Licenses**		165,740		175,478
SAP Licenses	590,975	590,975	590,975	403,242
Total:	$6,737,195	$5,581,597	$6,737,195	$5,043,805

Source: Deloitte Contract for budgeted Managed Services, Annual Invoice Payments for Project Fees, Annual Invoice Payment for Managed Services, and Dallas Water Utilities Projection for SAP Licenses and Support, Oracle vendor invoices and SAP Invoice Payments

* Actual cost for project fees is based on payments during the audit period that were identifiable. This may not include any invoices not paid, in dispute or not yet received.

**City contracts with vendor Mythics for Oracle database enterprise licenses, meaning that the cost of Oracle is for all databases, not just SAP. The auditor used 20 percent of the total cost in the table above based on the SAP application architecture and the estimated number of SAP administrators.

Criteria

- Administrative Directive 4-05 *Contracting Standards and Procedures* Section 5.3.11.
- City of Dallas Support Delivery Manual, *Appendix I.*
- Standards for Internal Control in the Federal Government, *Principle 10 – Design Control Activities*

Assessed Risk Rating:

High

We recommend the **Director of Information & Technology Services:**

B.1: As each contract is renewed or a contract extension is considered, perform a comprehensive review to validate cost efficiency.

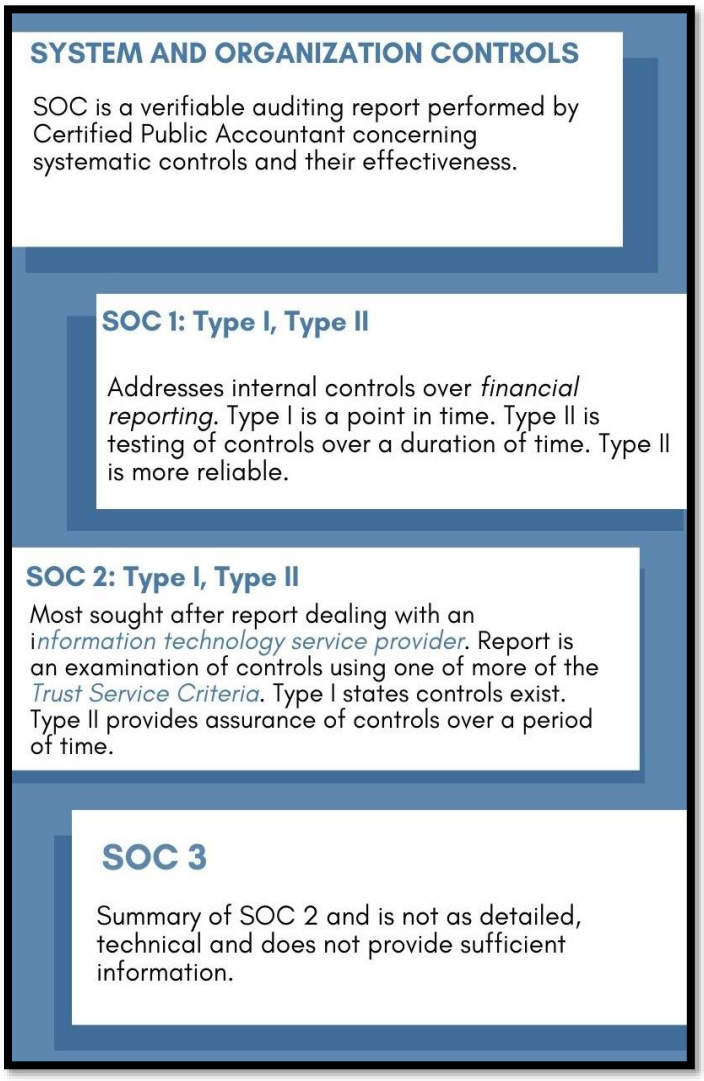
Observation C: Compliance

Compliance activities were not executed as follows:

- Vendor noncompliance with the contract's service level agreements.
- Information & Technology Services noncompliance with user entity controls defined by the subservice organization in their System and Organization Controls (SOC). See Exhibit 3 below.

Exhibit 3:

What is a SOC?



Source: Infosecurity Magazine, *SOC 1, 2, & 3 Audit Reports and Why You Need One*

Service Level Agreements

Noncompliance with service level agreements for application managed services existed for Fiscal Year 2020. The service level agreement in the *City of Dallas Support Delivery Manual 2013* states that incident tickets should be resolved within three business days (the longest time) and documented with a root cause analysis. Service requests should be coded correctly and limited to security provisioning. All other changes to the SAP application, even if it is to restore the system requires change management.

- Thirty-six percent of incident tickets were open for more than three days, with an average of 24 days for ticket resolution.
- Forty-seven percent of service requests were not related to access provisioning or password requests, as defined in the contract. Service requests should be using security provisioning.
- Change tickets, on average, were open for seven months. This indicates that either change requests were not being completed timely or not categorized properly.

Although weekly status reports are provided by Deloitte, Information & Technology Services does not review the reports. Instead, Information & Technology Services relies on professional judgment and a long-standing relationship with Deloitte personnel for compliance. Per Information & Technology Services, timeliness is based on whether City department personnel escalate directly to Information & Technology Services. Also, the *City of Dallas Support Delivery Manua1 2013* has not been updated since 2013 to reflect the changes in monitoring Deloitte.

User Entity Controls

Information & Technology Services and Deloitte could not demonstrate the implementation of user entity controls recommended by the subservice organization, NTT Managed Services Americas. The subservice organization specified in its Statement of Controls Type II, *User Entity Controls* requirements for City's infrastructure, data maintenance, security provisioning, and cybersecurity compliance. NTT Managed Services Americas hosting service is designed so that user entities (the City) establish their own internal controls or procedures to complement those provided by NTT Managed Services Americas.

Criteria

- *City of Dallas Support Delivery Manual 2013*
- NTT Americas Statement of Controls Type II, *User Entity Controls*
- Standards for Internal Control in the Federal Government, *Principle 10 – Design Control Activities*

Assessed Risk Rating:

Moderate

We recommend the **Director of Information & Technology Services:**

C.1: Review the service level agreement components for relevancy, applicability, and feasibility of demonstration by the vendor as the contract renewal process is occurring.

C.2: Provide sufficient training to Information & Technology Service managers to ensure they can continually demonstrate verification and validation of compliance by the vendor.

C.3: Consider a rotating schedule of employees responsible for contract monitoring to enhance knowledge sharing and continuity and reduce familiarity with vendor.

C.4: Incorporate any user entity controls suggested by the vendor or subservice organizations, if applicable, or establish compensating information security controls to complement vendor services.

Observation D: Quality

Contract monitoring documentation is not easy to follow. Imprecise, incoherent documentation reduces assurance and verification of the quality of services rendered.

Starting in 2020, when administrative actions were prepared for variable costs, the supporting documentation referred to prior change orders from prior years. Prior contractual activities did not provide clarity into the current requested services. References did not clarify the type of service, project duration, the quantity of vendor offshore personnel, and expectations for services. The current landscape for hosted infrastructure and application managed services changed, and reference to a prior statement of work was inaccurate and/or incomplete.

Also, placing reliance on the vendor numbering system for change orders, statements of work, and/or appendices led to further confusion. The interchangeability, non-sequential use of these documents, and lack of clarity on which documents to apply made it difficult to confirm whether all contractual activities were tracked.

In addition, detailed knowledge of contract terms, invoices, and tracing of billings to the contract is not codified into standard operating procedures to augment City Controller's Office general invoicing procedures.

A potential cause for inconsistent documentation could be Information & Technology Services has not participated in the City's new D-COR contract monitoring training series. As of this audit, Information & Technology Services Finance personnel responsible for contract management could not provide D-COR completion certificates.

Criteria

- Administrative Directive 4-05 *Contracting Standards and Procedures,* Section 6.1.12
- Standards for Internal Control in the Federal Government, *Principle 10 – Design Control Activities*

Assessed Risk Rating:

Moderate

We recommend the **Director of Information & Technology Services:**

D.1: Participate annually in City's D-COR training to understand how to track contract costs consistently.

D.2: Develop internal standard operating procedures so contract activities unique to Information & Technology Services are performed consistently, and more than one individual retains such knowledge.

D.3: Consider a rotating schedule of employees providing financial invoicing services to enhance knowledge sharing and continuity.

Observation E: Accountability

Operational activities to demonstrate internal accountability and monitoring were not present.

- Weekly status reports consistently show that incident, change, and service tickets are aging and remain unresolved for extended periods of time.
- Periodic service level agreement compliance reviews, annual vulnerability assessment results, disaster recovery testing, security reviews, or application license audits were either incomplete or not available for review. The last disaster recovery test was completed in 2019, and the 2021 testing was canceled due to the political climate at the disaster recovery site.
- Occurrence of periodic meetings to validate vendor accountability for services rendered was not verifiable. Meetings included Executive Steering Committee (monthly); Incident Prioritization Meeting (weekly or as needed); Change Advisory Board Meetings (weekly/as needed or according to an agreed upon schedule); and Monthly Status Meeting for Service Level Agreement (reviews for violations or debits to be applied).
- Invoices have limited information and cannot be used to confirm services without assistance from the Information & Technology Services Finance Manager. Deloitte's invoices do not have sufficient information on the nature and extent of services provided and the number of hours used or service detail.

A potential cause for incomplete monitoring could be that the *City of Dallas Support Delivery Manual 2013* is no longer current. The manual has not been updated since 2013 and its incident matrix does not reflect Information & Technology Services' ongoing updates to incident management and response. The *City of Dallas Support Delivery Manual 2013* also does not reflect the new process of using Service Now to track incidents, change orders, and service requests, which represent most of the application-managed services performed by Deloitte.

Criteria

- Administrative Directive 4-05 *Contracting Standards and Procedures,* Section 5.3.11
- City of Dallas Support Delivery Manual, Section 3.81. *Governance Structure*, and *Appendix I.*
- Standards for Internal Control in the Federal Government, *Principle 10 – Design Control Activities*

Assessed Risk Rating:

Moderate

We recommend the **Director of Information & Technology Services:**

E.1: Refer to recommendation C.1.

E.2: Develop internal standard operating procedures to standardize regular audits of application (software) and database licenses, and continuity activities.

Appendix A: Background and Methodology

Definitions

Application Managed Services – SAP application management and hosted infrastructure services consist of break/fix and how-to support for the in-scope modules and work units configured and/or developed and implemented.

Contract Monitoring – The administration of a contract and the inspection, review, observation, and evaluation by the initiating or lead department of a contractor's performance relative to the quality and quantity of work performed in relation to the terms and conditions of the contract and specifications.

Hosted Infrastructure – The infrastructure hosting services provider uses data center hosting provided by subservice organizations including Switch SUPERNAP, NTT Global Data Center EMEA and Americas, and NTT Singapore. NTT Managed Services provides managed cloud services, application hosting, managed services, managed security services, end-user services, and information technology consulting services. Cloud services support private, public, and hybrid infrastructure environments and can use Azure, Google, Amazon, and/or Oracle.

Subservice organization – An organization engaged and contracted by the third-party to perform all or part of outsourced activities that the third-party originally contracted to undertake.

Supplier – Encompasses upstream product and service providers used for an organization's internal purposes or integrated into the products or services provided to the buyer. These terms apply to both technology-based and non-technology-based products and services**.**

Supply Chain Risk Management – The organization's priorities, constraints, risk tolerances, and assumptions are established and used to support risk decisions for managing supply chain risk. The organization has established and implemented the processes to identify, assess, and manage supply chain risks.

Support Delivery Manual – Guides the daily operations, the provision of the support delivery manual shall not deviate from or modify the contract terms, including application requirements. Outlines the roles and responsibilities of City departments and vendors. The manual includes a RACI matrix that details the roles and responsibilities of each party.

Background

Dallas Water Utilities is the primary data owner of SAP Applications System. Information & Technology Services is responsible for hardware and software support. The current operational structure has limited internal resource support from both departments. Most of the support is outsourced to Deloitte. Deloitte uses offshore personnel and subservice organization, NTT Americas (Secure 24), to provide hosted infrastructure—a cloud-based data center.

Both departments have acknowledged that they are developing a Request for Competitive Sealed Proposal (RFCSP) for another potential vendor.

Deloitte services are broken down into two components: application managed services and hosted infrastructure. Application managed services involve resource enhancement where SAP incident, change, and service requests are routed through the City's service desk to Deloitte's service desk.

Upon receipt of the ticket, Deloitte Consulting executes based on the service level agreement metrics defined in the *City of Dallas Support Delivery Manual 2013*. Most of the application-managed services are completed offshore, which ensures 24-hour response.

In addition to ticket processing, Deloitte Consulting completes "major enhancement" or "projects" which require more than 80 hours and need approval by the City's change management board. These additional costs are tracked through contract supplemental agreements.

Deloitte Consulting provided hosted infrastructure (cloud computing) through its subservice organization, NTT Americas. Hosted infrastructure data centers are in Michigan. Both data centers are classified as Tier 4, including full redundancy for higher availability.

Contract History and Summary

The City contracted with Deloitte Consulting in March 2013. The contract was approved by City Council for $35,041,449 for a period of seven years to end in March 2020. The $35,041,449 includes:

- Hosted Infrastructure – $3,467,793 annually for seven years totaling $24,274,549.
- Managed services – $1,538,129 annually for seven years totaling $10,766,900.

The contract's purpose was to provide advantages in the following areas:

- Improved efficiencies.
- Continuity of business operations.
- Mitigation of risks related to utility support.
- Improved implementation capability of enhancements to meet business needs.
- Improved accountability and control.
- Ability to support new initiatives including governance transparency and strategic planning.
- Significant improvement in the quality, quantity, and timeliness of information used in decision-making.
- Service level-driven performance agreements.

In March 2020, the City used the first of two built-in two-year renewals (April 2020 to March 2022) in 2020 for a total cost of $12,292,440 as follows:

- Hosted Infrastructure – $1,443,720 annually for two years totaling $2,887,440.
- Managed Services – $2,250,000 annually for two years totaling $4,500,000.
- Other Projects – $4,905,000

In March 2022, the City used the second two-year renewal (April 2022 to March 2024) for a total cost of $10,832,200.

- Hosted Infrastructure - $1,542,300 annually for two years totaling $3,084,600.
- Managed Services - $2,763,800 annually for two years totaling $5,527,600.
- Other Projects - $2,200,000.

The contract changes and amendments were tracked in 31 supplemental agreements including the two supplemental agreements for contract extensions (SA#27) and (SA#31).

Revenue

Many departments within the City use the SAP application to collect revenues. The main user is Dallas Water Utilities to bill and collect water and sewage activities. Other application users are Dallas Fire Rescue, Dallas Police Department, and Aviation. Most transactions completed through SAP application are online through the customer portal and IVR gateway payment verification. Exhibit 4 shows the distribution of revenues for Fiscal Year 2022.

Exhibit 4:

Distribution of Revenue Collection (Fiscal Year 2022)

Table		
Segment		Total Revenue
AVI	Aviation	$ 171,200,678.45
BMS	Office of Financial Services	$ 2,736,404.40
CCS	Code Compliance	$ 5,044,055.00
CCT	Convention And Event Services	-$ 7,042.50
DEV	Development Services	$ 1,710.00
DFD	Dallas Fire Department	$ 3,175,194.68
DPD	Dallas Police Dept	$ 26,080.47
DWU	Dallas Water Utilities	$ 770,197,605.26
HOU	Housing	$ 24,978.24
LIB	Library	$ 5,042.45
OEQ	Office Of Environmental Quality	$ 239.18
PBW	Public Works & Transporation	$ 313,696.30
SAN	Sanitation	$ 107,880,747.24
SDM	Stormwater Drainage Management	$ 73,486,492.49
Overall Result		$ 1,134,085,881.66

Source: Dallas Water Utilities

Methodology

The audit methodology included: (1) interviewing personnel from Dallas Water Utilities and Information & Technology Services; (2) reviewing policies and procedures, the *Texas Local Government Code,* applicable Administrative Directives, contracts, supplemental agreements, and best practices; and (3) performing various analyses. In addition, all five components of *Standards for Internal Control in Federal Government* were considered.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based upon our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Major Contributors to the Report

Mamatha Sparks, CISSP, CISA, CIA, CRISC – Engagement Manager
Jennifer Phung, CIA - Auditor

Appendix B: Management's Response

Memorandum

CITY OF DALLAS

DATE: April 26, 2023

TO: Mark S. Swann – City Auditor

SUBJECT: Response to the Audit of SAP Software Solutions – Deloitte Consulting Service Contract

This letter acknowledges the City Manager's Office received the *Audit of SAP Software Solutions – Deloitte Consulting Contract* and submitted responses to the recommendations in consultation with the Department of Information & Technology Services.

City management recognizes the importance of efficiently monitoring our contracts to ensure the City and residents receive value and acknowledges there are opportunities to improve the monitoring of the SAP Software Solutions – Deloitte Consulting Service Contract.

To ensure consistent and effective contract monitoring across the City, the City developed and launched the Dallas Contracting Officer Representatives (D-COR) training program and has invested in more robust contract monitoring tools. The Department of Information and Technology Services has committed a number of staff to training and requires all managers to complete D-COR training.

Going forward the City and the Department of Information and Technology Services will continue to strengthen the contract monitoring process.

Sincerely,

tc broadnax (Apr 26, 2023 15:09 CDT)

T.C. Broadnax
City Manager

C: Genesis Gavino, Chief of Staff
Jack Ireland, Chief Financial Officer
William Zielinski, Chief Information Officer

"Our Product is Service"
Empathy | Ethics | Excellence | Engagement | Equity

Assessed Risk Rating	Recommendation		Concurrence and Action Plan	Implementation Date	Follow-Up/ Maturity Date
High	We recommend the **Director of Information &Technology Service:**				
	A.1: Develop a third-party provider risk management policy that inventories at a minimum mission essential function provider, incorporates cybersecurity, continuity of operations, and regular disaster recovery testing for all outsourced procurements.	**Agree:**	ITS shall continue to build the Risk management program by completing all NIST 800-171 assessments, centralize the assessments and place risk into the risk register. Vendor risks shall be identified for both internal and external risks. Expansion of the Risk management program shall be considered based upon budget.	09/30/2024	03/31/2025
	B.1: As each contract is renewed or a contract extension is considered, perform a comprehensive review to validate cost efficiency.	**Agree:**	As a part of standard State and local procurement policies, ITS performs analysis of the cost of application management at the conclusion of the existing contract. Through this analysis the City determines the most cost-effective manner for ITS to perform application management of the existing solution or to issue an RFCSP for a new solution.	06/30/2023	Next Contract Renewal
Moderate	We recommend the **Director of Information & Technology Services:**				
	C.1: Review the service level agreement components for relevancy, applicability, and feasibility of demonstration by the vendor as the contract renewal process is occurring.	**Agree:**	ITS will review the service level agreement components for relevancy, applicability, and feasibility of demonstration by the vendor as a part of the contract extension or renewal process is occurring.	09/30/2023	03/31/2024
	C.2: Provide sufficient training to Information & Technology Service managers to ensure they can continually demonstrate verification and validation of compliance by the vendor.	**Agree:**	ITS shall ensure all IT Program Administrators receive a minimum of D-COR level 1 training and shall ensure managers that ITS identifies as having contract management duties receive D-COR level 2 or 3 training.	12/31/2023	06/30/2024

Assessed Risk Rating	Recommendation		Concurrence and Action Plan	Implementation Date	Follow-Up/ Maturity Date
Moderate	We recommend the **Director of Information & Technology Services:**				
	C.3 Consider a rotating schedule of employees responsible for contract monitoring to enhance knowledge sharing and continuity and reduce familiarity with the vendor.	**Accept Risk:**	ITS believes technology contract monitoring is enhanced by familiarity and deep knowledge of vendor performance for service level agreements.	N/A	N/A
	C.4: Incorporate any user entity controls suggested by the vendor or subservice organizations, if applicable, or establish compensating information security controls to complement vendor services.	**Agree:**	ITS, in conjunction with city departments, will evaluate, for feasibility, entity controls suggested by the vendor or subservice organization to implement a zero-trust model. If ITS is unable to incorporate suggested controls, a compensating security control will be put in place and documented in the Risk Register.	03/31/2024	03/31/2025
	D.1: Participate annually in City's D-COR training to understand how to track contract costs consistently.	**Agree:**	ITS Contract Compliance Administrators responsible for processing and tracking change order requests have completed Levels 1 and 2 D-COR training. Contract Managers have completed Level 1 D-COR training.	06/30/2023	09/30/2023
	D.2: Develop internal standard operating procedures so contract activities unique to Information & Technology Services are performed consistently, and more than one individual retains such knowledge.	**Agree:**	ITS will expand internal standard operating procedures so contract activities unique to Information & Technology Services are performed consistently. ITS will perform bi-annual reviews to ensure compliance.	09/30/2023	03/31/2024
	D.3: Consider a rotating schedule of employees providing financial invoicing services to enhance knowledge sharing and continuity.	**Accept Risk:**	City budget process determines staffing levels. It is not feasible at this time to set a rotating schedule of employees for invoicing. ITS does however maintain a consistent separation of duties framework including contract monitoring, invoicing and approval.	N/A	N/A

Assessed Risk Rating	Recommendation		Concurrence and Action Plan	Implementation Date	Follow-Up/ Maturity Date
Moderate	We recommend the **Director of Information & Technology Services:**				
	E.1: Refer to recommendations C.1.	**Agree:**	ITS will review the service level agreement components for cost savings through the capture of penalties.	09/30/2023	03/31/2024
	E.2: Develop internal standard operating procedures to standardize regular audits of application (software) and database licenses, and continuity activities.	Agree:	ITS will refine internal standard operating procedures to standardize regular audits of application (software) and database licenses, and continuity activities.	09/30/2023	03/31/2024