August 29th, 2022

Auditor Timothy M. O’Brien, CPA
Office of the Auditor
City and County of Denver
201 West Colfax Avenue, Dept. 705
Denver, Colorado 80202

Dear Mr. O’Brien,

The Office of the Auditor has conducted a performance audit of Information Technology Vendor Management.

This memorandum provides a written response for each reportable condition noted in the Auditor’s Report final draft that was sent to us on August 9, 2022. This response complies with Section 20-276 (c) of the Denver Revised Municipal Code (D.R.M.C.).

AUDIT FINDING 1
Technology Services Does Not Systematically Manage Its Vendors

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<thead>
<tr>
<th>RECOMMENDATION 1.1 – Establish Organizational Structure</th>
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<tr>
<td>The city’s Technology Services agency should perform a staffing analysis to determine budget and staffing needs for the vendor management process. Based on this staffing analysis, the chief information officer should establish a staffing plan and designate an organizational structure, with a designated authority, for the vendor management team. The chief information officer should then document this structure in an approved vendor management policy.</td>
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Narrative for Recommendation 1.1
The conclusion of this audit engagement allows Technology Services to identify any additional roles necessary for vendor management. Technology Services will conduct a staffing analysis. Once the analysis is complete roles and responsibilities will be allocated and outlined within the Technology Service's organizational structure.
RECOMMENDATION 1.2 – Refine Strategic Plan Objectives
The city’s Technology Services agency should refine its strategic plan to include sufficient detail about how it will plan the vendor management process — including:

- Performance indicators for monitoring vendors’ contract compliance.
- Securing data and network infrastructure.
- Training city staff.
- Engaging proactively with vendors and partners.
- Improving how it selects and contracts with critical vendors to save taxpayer money.
- Monitoring other city agencies’ compliance with technology plans, budgets, standards, and policies and procedures.

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Narrative for Recommendation 1.2
Technology Services will review the identified objectives and update its current strategic plan as appropriate.

RECOMMENDATION 1.3 – Refine, Approve, and Implement Vendor Management Policy and Procedures
The city’s Technology Services agency should refine its draft vendor management policy with more detail about the organizational structure, how it will communicate staff’s roles and responsibilities, and how it will train staff. In addition, Technology Services should create all needed procedures that will be referenced in the policy, including but not limited to procedures described in recommendations 1.5, 1.6, and 1.7. Once the agency completes these procedures, the chief information officer should approve the revised draft vendor management policy as soon as possible.

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**Narrative for Recommendation 1.3**
Throughout the vendor management audit engagement Technology Services has been forthcoming in the intention to pause on the completion and implementation of the vendor management policy and procedures until the completion of the audit engagement. The conclusion of this audit engagement allows Technology Services to evaluate the audit recommendations. Technology Services will update the policy and procedures with a holistic focus in respect to capturing the organizational structure, roles & responsibilities, processes, and procedures.

**RECOMMENDATION 1.4 – Develop and Conduct Training**
The city’s Technology Services agency should develop a training plan to ensure staff with roles and responsibilities for information technology vendor management are aware and informed of how the process is structured and how it should operate.

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**Narrative for Recommendation 1.4**
Technology Services will implement a vendor management training plan for those who hold a role within vendor management.

**RECOMMENDATION 1.5 – Develop and Approve Security Review Procedures**
As part of implementing Recommendation 1.3, the city’s Technology Services agency should develop and implement security review procedures to ensure staff comprehensively and continuously monitor all information technology vendors for security concerns. These procedures should include at a minimum:
- Security reviews at intake and on a regular basis thereafter, at least once a year.
- Documentation for why a vendor is excluded from annual security reviews.
- Current independent security assessments.

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Narrative for Recommendation 1.5
In 2020 Technology Services implemented a vendor risk assessment when evaluating potential new technology vendors. The current vendor risk assessment process includes security and data protection reviews. Currently we are refining and documenting the initial vendor risk assessment review process.

Technology Services is currently reviewing industry standards and best practices associated with ongoing security & data protection vendor management. Technology Services will create monitoring frequency and oversight criteria based on risk assessment. Technology Services will document standards and criteria for risk evaluation, monitoring, exclusion criteria, as well as risk remediation standards and processes.

RECOMMENDATION 1.6 – Develop and Approve Performance-Monitoring Procedures
As part of implementing Recommendation 1.3, the city’s Technology Services agency should:
- Populate ServiceNow with the service-level objectives.
- Develop and incorporate procedures to ensure staff are comprehensively and continuously monitoring all vendors to verify they are meeting contract terms and the requirements of their service-level agreements.
- Include steps in procedures to ensure contracts contain service-level agreements and service-level objectives and that these service-level objectives are relevant, enforceable, and measurable.
- Define and implement a process for seeking restitution when vendors break agreed-upon performance objectives.

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Narrative for Recommendation 1.6
Technology Services will review staffing capacity, roles, responsibilities, determining where vendor performance monitoring should reside in the organization. Technology Services will also evaluate the purchase of the ServiceNow functionality necessary to populate service-level objectives.

The City Attorney’s Office in collaboration with Technology Services has created a new standardized legal agreement template to be utilized with Technology Services vendors. This agreement is not limited to, although includes relevant and enforceable service level
standards, data protection and security compliance requirements, along with Technology Services right to termination without cause.

### RECOMMENDATION 1.7 – Develop and Approve Vendor-Separation Procedures
As part of implementing Recommendation 1.3, the city’s Technology Services agency should develop and approve a process for when vendors separate from the city, and then management should communicate these procedures to relevant staff.

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**Narrative for Recommendation 1.7**
Technology Services will develop and approve a communication process for vendor separation to relevant staff.

### RECOMMENDATION 1.8 – Implement a Single System of Record for Vendor Management
The city’s Technology Services agency should establish a single system of record, such as ServiceNow, for vendor management data and monitoring activities. Once Technology Services establishes a single system of record, it should create a process for reviewing vendor management-related data to ensure accuracy.

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**Narrative for Recommendation 1.8**
Technology Services is currently evaluating the expansion of ServiceNow. Stakeholders outside of Technology Services utilize various systems for management of legal and financial documentation associated with technology services vendors. To ensure all vendor management information is accessible for all stakeholders without duplication of efforts technology services will determine the feasibility of the implementation of this recommendation.
Please contact Eunice Mwebi at 720-913-4970 with any questions.

Sincerely,

David Edinger
Chief Information Officer
Technology Services

cc: Valerie Walling, CPA, Deputy Auditor
    Dawn Wiseman, CRMA, Audit Director
    Jared Miller, CFE, CISA, CDPSE, Information System Audit Manager
    Paul Kresser, Chief Data Officer
    Chad Mitchell, Chief Application Officer
    Tara Segura, Data Protection Officer