



**Audit of the City Treasurer's Office -
Vendor Management
(Tyler Technologies/MUNIS Application)**

AYCHA SAWA
City Comptroller

CHARLES ROEDEL
Audit Manager

February 2022

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Aycha Sawa, CPA, CIA
Comptroller

Joshua Benson
Deputy Comptroller

Toni Biscobing
Special Deputy Comptroller

Richard Bare, CPA
Special Deputy Comptroller

February 16, 2022

Honorable Cavalier Johnson, Mayor
The Members of the Common Council

Dear Mayor and Council Members:

The attached report summarizes the results of the Audit of the City Treasurer's Office - Vendor Management (Tyler Technology/MUNIS application). Specifically included in the scope were:

- Key elements and controls that govern, define, and monitor the relationship between the City of Milwaukee and Tyler Technologies for the period June 1, 2020 through May 31, 2021.

The primary focus of the audit was on Vendor Management with the audit objectives being as follows:

1. Verify that the a) monitoring and issue tracking processes and b) related controls over Vendor Management are suitably designed and operating effectively
2. Determine if the Complementary User Entity Controls (CUECs) as identified in the 2021 SOC Audit Reports are adequately designed and operating effectively for the MUNIS application.

The audit concluded that internal controls related to: 1) Vendor Management monitoring and issue resolution/tracking and 2) those required as the user entity of the MUNIS application were suitably designed and operating effectively for the period under audit. Opportunities to enhance evaluating vendor performance was identified and communicated to management. Specifics are discussed in the Audit Conclusions and Recommendations section of this report followed by management's response.

Appreciation is expressed for the cooperation extended to the auditors by the personnel of the Treasurer's Office.

Sincerely,

A handwritten signature in black ink that reads 'Charles Roedel'.

Charles Roedel, CPA, CIA
Audit Manager

cc: City Comptroller Aycha Sawa
City Treasurer Spencer Coggs
Deputy City Treasurer Jim Klajbor
Assistant City Attorney Kathryn Block
Chief Information Officer David Henke

CRR: das



Audit Report Highlights

Audit of City Treasurer's Office – Vendor Management Processes (Tyler Technology/MUNIS application)

Why We Did This Audit

Property taxes represent approximately 29% of all City of Milwaukee revenues for which the Office of the City Treasurer invoices, collects and manages. The City procured Software as a Service (SaaS) titled MUNIS through a contract, with a third party provider (Tyler Technologies) to help perform these Treasurer's Office functions. With vendor relationships of this type, there is a general expectation that performance metrics are defined, monitored, and evaluated while specific process, system and application controls are in place.

Objectives

Verify that process controls for key elements of Vendor Management and the required system and application controls for MUNIS are suitably designed and operating effectively.

Background

Governmental entities often outsource critical functions as an opportunity for: cost-savings; leveraging efficiencies and economies of scale; and risk-sharing. It doesn't however transfer the underlying responsibility, accountability and authority of the activities, services or functions being contracted or outsourced. The intended benefit is offset with the risk that the third party won't adequately perform its duties which results in the failure of an important process or service of the City. Effectively managing the relationship and implementing related controls is inherent to outsourcing and can ensure successful outcomes represented by well-defined metrics that are aligned with the related strategic objectives.

Overview

The Office of the City Treasurer's oversight and interaction with the vendor is diligent, yet realistic with its current operating environment. They continue to demonstrate effective management of the relationship, while retaining ownership of the outsourced activities. The professional staff has significant and relevant technical and institutional knowledge to implement application system requirements and oversee functional needs. In parallel, there is an opportunity to improve the process of evaluating the vendor against pre-defined metrics.

Opportunities for Improvement

Contractual Performance Metrics: A current contractual guarantee could not be accurately evaluated or specifically enforced. We recommend that the Treasurer's Office perform and document regular reviews of contractual guarantees using reconciled and validated underlying data and designate an information technology (IT) support person responsible.¹

¹ The recommendation associated with this finding has two elements related to: 1) remaining contract period and 2) any future amendment(s). Additional information related to this issue can be found on page 7.

I. Audit Scope, Objectives, and Methodology

The audit scope, objectives, methodology, along with the reported results and conclusions are predicated on and contextual with:

- Department’s strategic/operational goals;
- Relationship to the organization as a whole;
- Key processes/functions designed to achieve success;
- Risks related to the key process/functions;
- Benchmarks/metrics that define success;
- Resources and access to information; and
- Applicable professional auditing standards.

Scope

The scope included:

- Key elements and controls that govern, define, and monitor the relationship between the City of Milwaukee and Tyler Technologies for the period June 1, 2020 through May 31, 2021, including those required per the Service Organization Controls (SOC) audit reports performed on Tyler Technologies

Specific exclusions from scope were:

- Process controls that are not related to the “Monitoring” and “Issue-Resolution” components of Vendor Management. See “Vendor Management” within the Background section
- Application controls that were not Complimentary User Entity Controls (CUEC) as specified in the SOC report. See “Providers of Information Technology Services” within the Background section.

Objectives

The objectives of the audit were as follows:

1. Verify that the processes and related controls over Vendor Management - Monitoring and Issue-resolution are suitably designed and operating effectively.
2. Determine if the Complimentary User Entity Controls (CUECs) as identified in the 2021 SOC Audit Reports are suitably designed and operating effectively.

Methodology

Audit methodology included developing an understanding of the processes, risks and controls related to the scope and objectives of the subject matter of the audit. The audit program design was developed using criteria contained in the contract, the 2021 SOC Report of Tyler Technologies, relevant policies and procedures, while also considering additional guidance outlined by other relevant sources.

Testing was performed by applying risk-based analytical and substantive procedures including:

- Interviews with key processes owners and those charged with authority, responsibility, and accountability over the areas being audited;
- Obtaining and validating relevant system data;
- Performing detail tests of transactional activity related to system and application controls; and
- Reviewing the Treasurer’s processes and evidentiary support for reporting, tracking and resolving issues with Tyler.

Compliance with Professional Auditing Standards

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 on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

II. Organization and Fiscal Impact

In 2019, property taxes accounted for 29% of all of City of Milwaukee revenues². They are derived from a tax base of approximately \$29.5 billion representing 159,178 accounts³, including five taxing jurisdictions across three different counties. The 2019 tax levy was \$797,884,980, of which \$778,988,465 was collected (as of December 31, 2020)⁴, yielding a 97.6% collection rate efficiency.

Specifically related to property taxes, the Treasurer’s Office:

- Invoices and collects the tax roll/levy provided by the City Assessor;
- Ensures the tax bills equal the tax roll/levy⁵;
- Calculates tax bill installment payments based on multiple factors;
- Collects amounts due and manages the associated tax accounts receivable;
- Remits tax collections to jurisdictions for whom the City acts as an agent; and
- Monitors and pursues delinquencies.

² As presented in the “Tax Dollar 2019” Report posted on the “Financial Services” page of the Comptroller’s Office website

³ Per “Assessment Data Summary” report for tax year 2019 as posted on the Milwaukee Open Data portal accessed via the “Tax Data and Reports” page of the City Assessor’s Office website

⁴ Provided by the Investments and Financial Services Director within the Office of the City Treasurer

⁵ Including special charges and assessments as provided by other departments/sources and other adjustments based on the school, lottery and first dollar tax credit rates reported to them

III. Background

The City uses a third party (Tyler Technologies) provider of Software as a Service (SaaS) to automate several key Treasurer's Office activities noted above. The representative contract was awarded in February of 2016 and is set to expire February of 2023 with a total estimated value of \$5.1 million. This included one-time implementation costs of approximately \$1.3 million with annual support and maintenance costs that are currently set at \$587,140⁶. The key elements of the relationship and the type of product or service being provided were two important considerations of the audit as outlined below.

1. Vendor Management

Per guidance provided by the Institute of Internal Auditors, third party relationships are viewed from a global perspective (termed Vendor Management), which is comprised of six primary elements: Sourcing (business case for procurement); Due Diligence (evaluating and selecting a vendor); Contracting (developing and memorializing terms specific to the procurement and potential extensions); Monitoring (oversight and managing vendor relationships); Issue Resolution (specific tracking and resolving problems in real-time); and Termination (dissolving the relationship). This is true regardless of the type of product or service being procured. Because the City of Milwaukee is decentralized in its approach to vendor relationships and how it addresses these six components, the primary user department (in this case, the Treasurer's Office) is best suited to perform the "Monitoring" and "Issue Resolution" activities with the vendor.

In the context of the first audit objective,

- Monitoring includes a) obtaining and reviewing the applicable SOC reports, noting relevant deficiencies as well as b) evaluating performance metrics agreed to in the underlying contract, as presented in the associated SLA, and/or other benchmarks for the intended purpose. The primary performance metric identified in the contract with Tyler was "downtime". This was defined as lack of availability of any of the specified paid services for more than 3% of a respective billing quarter with attached financial incentives. The audit used this "downtime" benchmark as a basis/criteria for our related testwork.
- Issue Resolution involves working with the vendor to identify, reliably track and resolve problems both effectively and timely. It can also include other analysis or methods deemed relevant⁷. The audit reviewed how long it took to resolve issues according to set priority levels and the frequency and/or trend(s) of significant events (downtime, critical issues, etc.),

⁶ As presented in the Contract B13594, Contract Exhibit B, subsection - Tyler Exhibits A, B and an inserted accepted Sales Quotation

⁷ Such as evaluating elapsed time to resolve issues (stratified by intervals, less than 1 day, greater than 1 day, etc.) according to priority level (Critical, High, Med, etc.)

2. *Providers of Information Technology Services*

In cases where the vendor is providing information technology services across a market of clients, like Tyler Technologies, they often engage an independent auditor to perform assurance services which result in a deliverable referred to as a Service Organization Controls (SOC) report. This report renders an opinion on the internal control structure of the provider (Tyler) from a broad perspective as it relates to the services offered to clients (City of Milwaukee) and includes findings and management responses. It also outlines internal controls that need to be in place within the client's organization so that the operating structure is constructed to ensure success for all stakeholders. These are referred to as Complimentary User Entity Controls (CUECs).

In the context of the second audit objective:

- The audit used the most recent 2021 SOC report to identify, verify and test the system/application controls (CUECs) at the City of Milwaukee as they pertain to the MUNIS application.

IV. Audit Conclusions and Recommendations

As aligned with the audit objectives and supported by the evidence obtained: 1) process controls for Vendor Management (Monitoring and Issue-resolution); and 2) required system/application controls for the MUNIS application were suitably designed and operating effectively to mitigate the risk of a) failure of the related City property tax revenue processes and b) breach of MUNIS system security and access as overseen by the City of Milwaukee Treasurer's Office. Along with this overall conclusion is an opportunity to enhance the Vendor Management - Monitoring process associated with the first audit objective as noted below.

Contractual Performance Metrics

| | |
|--------------|--|
| Risk Rating: | Low ⁸ |
| Finding: | A performance guarantee provided in the contract could not be measured accurately. |
| Criteria | The contract between the City of Milwaukee and Tyler Technologies guarantees that financial credits will be applied to quarterly billing where documented downtime of any paid service exceeds 3%. |
| Impact: | Loss of potential financial credits owed ⁹ . |

⁸ When assessing risk related to an issue (likelihood of occurrence and the magnitude of impact), the audit process takes into consideration potential mitigating factors, including what are referred to as "Compensating Controls". These represent other management actions that may reduce the exposure/risk initially identified using the original testing data. See the charts and narrative analysis on the next page for "Risk Rating Considerations" of the finding.

⁹ See evaluation of impact as reflected in the charts and narrative analysis on the next page (Risk Rating Considerations)

Cause: Data needed to evaluate vendor performance per the contract is not reconciled or validated.

Recommendations:

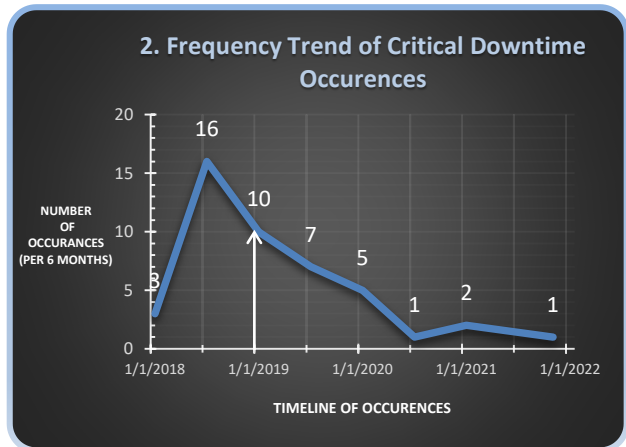
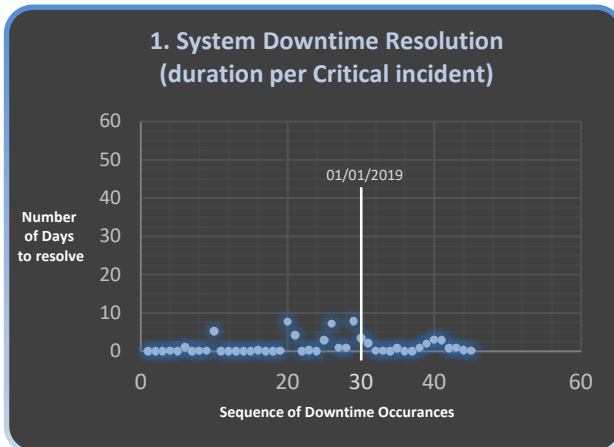
Duration of the Current Contract:

- a) Perform quarterly reviews of reconciled and validated system data to evaluate vendor performance applied to the guarantee committed to in the existing agreement.
- b) Designate an IT Support person responsible for ensuring accurate and timely recording of the date an issue is closed.

Future Amendment(s):

Define service level guarantees with measureable criteria that are substantive to the relationship and include agreed upon reliable and relevant supporting information.

Risk Rating Considerations



While a performance metric identified in the contract was not being specifically monitored, the Treasurer’s office has compensating controls in the form of weekly meetings and updates with Tyler staff and management. This joint effort has resulted in the vendor being accountable, responsive and proactive on both macro and granular (individual issue) levels. Generally, Chart 1 quantifies an element of the potential magnitude of impact (how long it took to resolve critical issues), while Chart 2 shows the likelihood of occurrence through a trend of how often critical events occur. As the charts indicate, diligent communications have been instrumental in ensuring that the time to resolve critical issues has remained relatively low (Chart 1), and in significantly reducing the frequency of critical events throughout the contract period (Chart 2). When viewing the charts together, the dated vertical arrow in Chart 1 intersects with the 29th downtime occurrence and corresponds to the same date and downtime occurrence in Chart 2. This illustrates the probable correlation of eliminating minor spikes of resolution time as shown in Chart 1 with the declining frequency trend reflected in Chart 2. All of this further supports the positive effects of the consistent and detailed interactions between the Treasurer’s Office and Tyler Technologies while also reducing the likelihood that the performance metric would not be met. Therefore, we assess the risk rating of this finding/issue as: “Low”.



Aycha Sawa, CPA, CIA
Comptroller

Joshua Benson
Deputy Comptroller

Toni Biscobing
Special Deputy Comptroller

Richard Bare, CPA
Special Deputy Comptroller

February 16, 2022

Honorable Cavalier Johnson, Mayor
The Members of the Common Council

Dear Mayor and Council Members:

With this letter, the Office of the City Comptroller acknowledges receipt of the preceding report, which communicates the results of the Audit of the City Treasurer's Office - Vendor Management (Tyler Technology/MUNIS application). I have read the report and support its conclusions. Implementation of the stated recommendations will help improve City processes.

As the City Comptroller, I was not involved in any portion of the work conducted in connection with the audit. At all times, the Audit Division worked autonomously in order to maintain the integrity, objectivity, and independence of the audit, both in fact and in appearance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Aycha Sawa", with a long horizontal flourish extending to the right.

Aycha Sawa, CPA, CIA
Comptroller



Spencer Coggs
City Treasurer

James F. Klajbor
Deputy City Treasurer

Margarita M. Gutierrez
Special Deputy City Treasurer

Robyn L. Malone
Special Deputy City Treasurer

OFFICE OF THE CITY TREASURER
Milwaukee, Wisconsin

February 9, 2022

Charles Roedel
Audit Manager
Office of the City Comptroller
City Hall, Room 404

**RE: AUDIT OF THE CITY TREASURER'S OFFICE - VENDOR
MANAGEMENT (TYLER TECHNOLOGIES / MUNIS APPLICATION)**

Dear Mr. Roedel:

This is written in response to the recommendations made in the Audit of the City Treasurer's Office - Vendor Management (Tyler Technologies / Munis Application) dated February 2022.

Recommendation 1:

Duration of the Current Contract:

a) Perform quarterly reviews of reconciled and validated system data to evaluate vendor performance applied to the guarantee committed to in the existing agreement.

This office will work with Tyler to develop a protocol for placing service tickets that accurately reflects the issue to be addressed. This will assure a review of the service tickets placed provides the appropriate data to identify any performance guarantee defaults.

Department IT support staff will be responsible for conducting a quarterly review of service ticket data to identify any performance guarantee defaults.

b) Designate an IT Support person responsible for ensuring accurate and timely recording of the date an issue is closed.

Department IT support staff will be responsible for assuring service tickets are closed upon successful testing of application fixes and updates.



Recommendation 2:

Future Amendment(s):

Define service level guarantees with measureable criteria that are substantive to the relationship and include agreed upon reliable and relevant supporting information.

This office, with assistance from the City Attorney's Office, will identify and define service level guarantees with practical, measureable criteria that are relative and substantive to the relationship and include agreed upon reliable and relevant supporting information as part of the contract extension effective in February 2023.

Please direct any questions on the above response to the undersigned at Extension 2242, or to Jim Klajbor, Deputy City Treasurer, at extension 2246.

Sincerely,



SPENCER COGGS
City Treasurer

SC/JFK/me

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