

## **Results of Agreed-Upon Procedures to Assess Controls over Pay & Display Credit Card Revenues**

**Date:** April 28, 2021

**To:** Board of Directors of the Toronto Parking Authority (TPA)

**From:** Auditor General

**Wards:** All

### **SUMMARY**

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In late 2017, the City's Fraud and Waste Hotline (operated by the Auditor General's Office) received a complaint regarding TPA's vendor ("the Vendor") of Pay & Display machines and related services.

The Auditor General undertook an initial assessment of the allegations to better understand the information provided and to consider what actions would be appropriate in order to prioritize available resources. The Auditor General also considered the scope of prior audits of TPA completed by her Office and held preliminary discussions with TPA management and their external financial statement auditor.

After this initial assessment, further consideration was given to the following allegations:

1. TPA credit card revenue was redirected by the Vendor (meaning TPA was not receiving parking revenues processed by the Vendor through the Pay & Display machines)
2. TPA did not exercise appropriate due diligence in procurements from the Vendor

For the first allegation, the Auditor General liaised with TPA and its external auditor to decide the level of work required to assess risks to the City and how those risks were being managed by TPA. The external auditor performed agreed upon procedures to test key controls including controls that provide reasonable assurance over the completeness and accuracy of recorded revenue and receivables.

Although we did not conduct in-depth testing of the Vendor's systems and records ourselves, no evidence came to our attention through the work of the external auditor that would suggest that TPA credit card parking revenue was being redirected by the Vendor.

The Auditor General's Office has closed this Fraud and Waste Hotline allegation – no further work will be conducted at this time.

For the second allegation, TPA has purchased Pay & Display equipment and related services on a non-competitive / sole-source basis from the same vendor since 1998. In 2009, the Auditor General's Office completed an audit of "Toronto Parking Authority Pay and Display Parking Operations - Review of Revenue, Expenditure and Procurement Practices". Given the length of time that has passed since the Auditor General's Office last conducted an audit in this area, and because of the longstanding relationship between TPA and this Vendor, we may consider doing further work in the future to examine this relationship in the context of current procurement rules and contract management.

This report presents the Auditor General's consideration of risks raised in the complaint allegations as noted above.

## **RECOMMENDATIONS**

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The Auditor General recommends that:

1. The Board request the President of the Toronto Parking Authority to address the findings of the external auditor including:

a. requesting the vendor of its Pay & Display machines and related services to implement formal reporting mechanisms to identify, assess, track and report internal control deficiencies and subsequent remediation efforts;

b. requesting the vendor of its Pay & Display machines and related services to implement appropriate controls to be able to monitor activity of users that are able to access the system underlying TPA's Pay & Display machines;

c. obtaining an annual CSAE 3416 / SOC1 (Service Organization Control) Type 2 report from the vendor of its Pay & Display machines and related services.

2. The Board forward this report to City Council for information through the City's Audit Committee.

## **FINANCIAL IMPACT**

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The implementation of recommendations in this report will result in improved internal controls over revenues processed through TPA's Pay & Display machines. The extent of any resources required or potential costs resulting from implementing the recommendations in this report is not determinable at this time.

## **DECISION HISTORY**

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The *City of Toronto Act, 2006*, identifies that, as part of her responsibilities, "the Auditor

General is responsible for assisting City Council in holding itself and city administrators accountable for the quality of stewardship over public funds..."

Stewardship over public funds involves reviewing controls and verifying that allegations of fraud and waste are addressed.

The Fraud and Waste Hotline program operated by the Auditor General's Office provides City of Toronto staff and members of the public with a means to report any observed or suspected fraud, waste or wrongdoing involving City resources.

The Auditor General's Forensic Unit also provides independent oversight of management-led investigations by reviewing the adequacy of work conducted, including steps taken to reduce losses, protect City assets and prevent future wrongdoing.

## **COMMENTS**

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The Toronto Parking Authority (TPA) manages approximately 60,000 parking spaces in the City of Toronto and in 2019 generated over \$152 million in annual revenue. Credit card transactions accounted for approximately \$30 million of 2019 parking revenue.

In late 2017, the Fraud and Waste Hotline received a complaint regarding TPA's vendor ("the Vendor") of Pay & Display machines and related services. The complainant alleged that:

1. TPA credit card revenue was redirected by the Vendor (meaning TPA was not receiving all parking revenue processed by the Vendor through the Pay & Display machines)
2. TPA did not exercise appropriate due diligence in procurements from the Vendor

The Auditor General undertook an initial assessment of the allegations to better understand the information provided and to consider what action would be appropriate in terms of prioritizing available resources.

### **Allegation #1: TPA credit card parking revenue was redirected by the Vendor**

Under the Auditor General's independent oversight, TPA engaged its external auditor to undertake agreed-upon procedures to examine controls over the Vendor's system by which TPA credit card parking revenues are processed.

This work was over and above the normal procedures the external auditor performs annually as part of the audit of TPA's financial statements. Annually, the external auditor conducts a number of procedures to assess the completeness of revenue, including testing sample credit card transactions and tracing them to bank statements. The auditor also performs internal control testing of TPA's process to reconcile reports from their Vendor to credit card provider statements.

The additional agreed-upon procedures included testing of seven general information technology (IT), one Payment Card Industry (PCI), 12 COSO<sup>1</sup> internal control framework, and 11 revenue process controls over the operation and management of Pay & Display machines by the Vendor on behalf of TPA.

For example, the external auditor performed procedures to test whether:

- Controls provide reasonable assurance that revenue recorded is based on valid parking transactions
- Controls provide reasonable assurance over the completeness and accuracy of recorded revenue and receivables
- Controls provide reasonable assurance over the accurate recording of adjustments, and recording in the proper period

Appendix 1 includes a summary of the controls tested by the external auditor.

The external auditor reported that the majority of control procedures tested yielded no exceptions, but identified that:

- The Vendor did not have a formal reporting mechanism in place to identify, assess, track and report internal control deficiencies. The absence of such a mechanism may result in a failure to detect ongoing control deficiencies and take corrective actions as required.
- While access to the software system underlying the Pay & Display machines is restricted to a few authorized users, related user activities were not being monitored by the Vendor, which may lead to unauthorized actions not being detected and resolved.

As a means of formally evaluating the Vendor's internal control environment and assessing the quality of related services provided, the external auditor also recommended TPA request an annual external assurance engagement report from its Vendor or consider conducting an annual review of its Vendor's internal controls. A Canadian Standard on Assurance Engagements 3416 report (CSAE 3416 report) / SOC1 (Service Organization Control) Type 2 report is a report that is commonly issued by service providers as part of industry practice. We understand that TPA's Vendor already issues a similar report for another customer.

The external auditor issued its final report on the additional agreed-upon procedures to TPA on April 9, 2020. We have reviewed the external auditor's report and agree with their recommendations. Management's response to the recommendations are included in Appendix 2.

Although we did not conduct in-depth testing of the Vendor's systems and records ourselves, no evidence came to our attention through the work of the external auditor that would suggest that TPA credit card parking revenue was being redirected by the Vendor.

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<sup>1</sup> Committee of Sponsoring Organizations of the Treadway Commission (COSO) internal control framework is recognized as a leading framework for designing, implementing, and conducting internal control and assessing the effectiveness of internal control.

The Auditor General has conducted separate audits of TPA's revenue operations in the past. Prior reports include:

- Toronto Parking Authority Pay and Display Parking Operations — Review of Revenue, Expenditure and Procurement Practices (2009)<sup>2</sup>
- Toronto Parking Authority Phase 2: Audit of the Revenue Operations of Off-Street Controlled Facilities (2016)<sup>3</sup>

The Auditor General's Office has closed this Fraud and Waste Hotline allegation – no further work will be conducted at this time.

## **Allegation #2: TPA did not exercise appropriate due diligence in procurements from the Vendor**

TPA has purchased Pay & Display equipment and related services on a non-competitive / sole-source basis from the same vendor since 1998.

Upon amalgamation in 1998, TPA introduced Pay & Display machines supplied by the Vendor to replace on-street single-space meters previously used throughout the city and the former municipalities. This equipment has since become the standard for TPA. The equipment had been used by the former Cities of Toronto and North York prior to amalgamation.

TPA's Vendor is the exclusive Canadian supplier for the manufacturer of the Pay & Display machines, which TPA uses at all of its on-street and non-gated off-street facilities. While TPA owns the Pay & Display equipment, the operating system controlling the equipment is a proprietary system owned by the Vendor. The Vendor manages TPA's network of Pay & Display machines under a Master Services Agreement with TPA, which expires in 2031. The Vendor has no role in controlled access/gated parking facilities or Mobile Pay.

In 2009, the Auditor General's Office reported out on its audit of "Toronto Parking Authority Pay and Display Parking Operations - Review of Revenue, Expenditure and Procurement Practices". The 2009 report outlined TPA's history of sole-source purchasing of Pay and Display equipment, as well as supporting parts and maintenance. The Auditor General reported that TPA policies (at the time) provided management broad discretionary power to make exceptions to the procurement process. This increased the risk that purchasing terms and conditions may not have been the most competitive in the market. Since the 2009 audit, TPA has entered into additional agreements with their Vendor including the Master Services Agreement and agreement for Data Management Services.

Given the length of time that has passed since the Auditor General's Office last conducted an audit in this area, and because of the longstanding relationship between TPA and this Vendor, we may consider doing further work in the future to examine this relationship in the context of current procurement rules and contract management.

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<sup>2</sup> <https://www.toronto.ca/legdocs/mmis/2009/au/bgrd/backgroundfile-22024.pdf>

<sup>3</sup> <https://www.toronto.ca/legdocs/mmis/2016/au/bgrd/backgroundfile-90475.pdf>

This report does not constitute an audit conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS). However, we believe that sufficient work has been performed to consider the risks raised in the allegations received by the Fraud and Waste Hotline.

## **CONTACT**

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## **SIGNATURE**

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Beverly Romeo-Beehler  
Auditor General

## **APPENDICES**

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Appendix 1: Controls Tested by the External Auditor

Appendix 2: Management's Response to the Auditor General's Report Entitled: "Results of Agreed-Upon Procedures to Assess Controls over Pay & Display Credit Card Revenues"

## Appendix 1: Controls Tested by the External Auditor

<p><b>General Information Technology (IT) Controls</b></p>	<p><b><i>Access to Programs and Data</i></b>  1. Additions or changes to logical access are approved by management.  2. Managers notify IT of departed employees or contractors and access is revoked.  3. Management conducts annual reviews of access privileges.</p> <p><b><i>Change Management</i></b>  4. Management reviews and approves change requests.  5. Test procedures are designed and executed to verify the change.  6. Users sign-off on test results and production implementation is authorized by management.</p> <p><b><i>Incident Management</i></b>  7. Parking systems alerts are reviewed and investigated by data centre staff.</p>
<p><b>COSO Internal Control Framework</b></p>	<p><b><i>Control Environment</i></b>  1. The board of directors demonstrates independence from management and exercises oversight of the development and performance of internal control.  2. Management establishes, with board oversight, structures, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives.  3. The entity demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives.  4. The entity holds individuals accountable for their internal control responsibilities in the pursuit of objectives.</p> <p><b><i>Communication &amp; Information</i></b>  5. The entity internally communicates information, including objectives and responsibilities for internal controls, necessary to support the functioning of internal control.  6. The entity communicates with external parties regarding matters affecting the functioning of internal control.</p> <p><b><i>Risk Assessment</i></b>  7. The entity considers the potential for fraud in assessing risks to the achievement of objectives.  8. The entity identifies and assesses changes that could significantly impact the system of internal control.</p> <p><b><i>Monitoring Activities</i></b>  9. The entity selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning.  10. The entity evaluates and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate.</p> <p><b><i>Control Activities</i></b>  11. The entity selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.  12. The entity deploys control activities through policies that establish what is expected and in procedures that put policies into action.</p>

<b>Revenue Controls</b>	<p><b><i>Controls provide reasonable assurance over the accurate creation and maintenance of master data</i></b></p> <ol style="list-style-type: none"> <li>1. New meters and meter replacements (both main board and card readers) are configured in accordance with formally defined [Vendor] meter initialization procedures.</li> <li>2. Changes to parking meter rates are reviewed for completeness, accuracy and authorization by an appropriate level of management.</li> </ol> <p><b><i>Controls provide reasonable assurance that revenue recorded is based on valid parking transactions.</i></b></p> <ol style="list-style-type: none"> <li>3. Only valid credit cards, unexpired cards and cards with proper available funds are accepted as payment method for the parking privilege prior to the transaction being authorized (pre-and post-authorization) and a parking ticket generated. Transaction authorization involves &lt;redacted&gt; middleware and &lt;redacted&gt; transaction processor.</li> <li>4. Should the following events on a parking meter occur, the transactions will be placed in a buffer: Off-line transaction degraded mode; Hardware issue; High Payment Interval. The parking meter does a self-check and sends out a &lt;redacted&gt; file listing the transactions that were placed in the buffer.</li> <li>5. Credit card information, being transmitted to the &lt;redacted&gt; middleware platform and then to &lt;redacted&gt; for processing, is encrypted.</li> </ol> <p><b><i>Controls provide reasonable assurance over the completeness and accuracy of recorded revenue and receivables.</i></b></p> <ol style="list-style-type: none"> <li>6. At the end of each day, an &lt;redacted&gt; file is sent by each parking meter machine to the &lt;redacted&gt; middleware platform. Daily totals are aggregated and reconciled</li> <li>7. Each credit card reader has buffer data storage capability of between 100-125 transactions. Once the buffer is full, the reader stops processing the authorization of transactions.</li> </ol> <p><b><i>Controls provide reasonable assurance over the accurate recording of adjustments, and recording in the proper period.</i></b></p> <ol style="list-style-type: none"> <li>8. Expected and actual credit card revenue numbers are reconciled between the &lt;redacted&gt; middleware platform and &lt;redacted&gt;. Variances are investigated and resolved.</li> </ol> <p><b><i>Controls provide reasonable assurance that system access rights are adequately restricted.</i></b></p> <ol style="list-style-type: none"> <li>9. Access to modify parking meter configuration parameters and master data is restricted to [Vendor] technical staff.</li> </ol> <p><b><i>Controls provide reasonable assurance that segregation of incompatible functions is defined and maintained.</i></b></p> <ol style="list-style-type: none"> <li>10. The following functions are appropriately segregated between users: Modify parking meter parameters; Input parking meter rates; Perform revenue reconciliation.</li> </ol> <p><b><i>Controls provide reasonable assurance that business oversight of third-party providers is clearly defined, documented, communicated and understood which leads to effective monitoring and timely remedial action when required.</i></b></p> <ol style="list-style-type: none"> <li>11. Service organization auditor's reports or equivalent are sought from third parties providing services affecting revenue reporting. Such reports (including bridge letter) are periodically reviewed for adequacy of period coverage and control deficiencies, and reported gaps are investigated and properly mitigated.</li> </ol>
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<b>Payment Card Industry (PCI) Data Security Standard Controls</b>	1. As a PCI compliant Merchant / Service Provider, [Vendor] is subject to quarterly scans of in-scope systems by a certified Authorized Scanning Vendor (ASV) and an annual recertification process conducted by a certified PCI Qualified Security Assessor (QSA). Action is taken to respond to and correct identified issues.
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**Appendix 2: Management's Response to the Auditor General's Report Entitled: "Results of Agreed-Upon Procedures to Assess Controls over Pay & Display Credit Card Revenues"**

Recommendation 1: The Board request the President of the Toronto Parking Authority to address the findings of the external auditor including:

- a. requesting the vendor of its Pay & Display machines and related services to implement formal reporting mechanisms to identify, assess, track and report internal control deficiencies and subsequent remediation efforts;
- b. requesting the vendor of its Pay & Display machines and related services to implement appropriate controls to be able to monitor activity of users that are able to access the system underlying TPA's Pay & Display machines;
- c. obtaining an annual CSAE 3416 / SOC1 (Service Organization Control) Type 2 report from the vendor of its Pay & Display machines and related services.

Management Response: <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan/Time Frame:  TPA has shared the recommendations with the vendor and engaged in discussions with the vendor's auditor for obtaining an annual CSAE 3416 Type 2 report for 2021.