



**Office of the Auditor General**

**Follow-up to the 2015 Audit of Accounts Payable**

**Tabled at Audit Committee  
May 29, 2019**



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## Executive summary

The Follow-up to the 2015 Audit of Accounts Payable was included in the Auditor General's 2017 Audit Work Plan.

The original audit identified opportunities for the City to strengthen controls within Accounts Payable (AP) and use technology to increase the efficiency in processing invoices, maximizing cost savings and monitoring performance. The key findings raised in the original audit included:

- The roles, responsibilities and accountabilities of AP stakeholders are well defined, understood and supported by standards, procedures and tools.
- AP unit maintains a risk management process that aligns with the City's ERM Policy and allows for the ongoing identification, assessment, mitigation and monitoring of risks.
- Segregation of duties<sup>1</sup> (SOD) is necessary to mitigate the risk of potential errors and/or fraud. In situations where AP staff need system access above what has been assigned to their position, a review of potential SOD issues is required prior to granting enhanced access. While this process was verbally described, no documentation could be provided to demonstrate that the process was consistently and formally applied.
- Within SAP, there is a field that can be configured to enforce a check of duplicate invoices for all vendors prior to payment. This application control is configured as optional and not automatically applied as a mandatory check for all vendors. Reliance is placed on AP staff to manually select this field when they are creating a new vendor record or updating an existing vendor record. If the field is not selected when creating a vendor, there is a risk that duplicate payments can be processed for that vendor and manual compensating controls must be relied upon to detect duplicate payments.
- SAP contains key information on City vendors in "vendor master fields". Maintaining these fields is critical as sensitive information, such as banking information, is retained for vendors and forms the basis of payment. Access to modify this information requires strong controls to mitigate the risk of potential

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<sup>1</sup> Segregation of Duties (SOD) is required for sustainable risk management and internal controls for a business. The principle of SOD is based on shared responsibilities of a key process that disperses the critical functions of that process to more than one person or department. (Source: aicpa.org)

fraud. When an employee creates a new vendor or updates information on an existing vendor in SAP, the change becomes active. No sensitive fields have been defined for which approval is required before the change becomes active in the system.

- Delays in reviewing and approving invoices cause delays in payment and missed discounts<sup>2</sup>. AP implemented priority functionality within MarkView<sup>3</sup> to notify users when potential discounts were coming due. While this functionality was in place, the notifications were not effective in distinguishing high priority invoices where an available discount was coming due or an invoice was about to be paid late. Clarifying the message in the notification would highlight those invoices and allow the business user to prioritize those invoices for immediate action.
- While the City is tracking the amount of missed discounts, it is not tracking penalties as a result of late payments.
- While AP performance monitoring has been established on a City-wide basis, limited analysis and reporting results are provided to business units on their individual results. There is an opportunity to leverage the tools and analysis within the AP unit to provide periodic reporting to business units on their specific results pertaining to discounts available but not taken, late payments, and average days taken to approve an invoice.
- Automation can be used to increase the efficiency and effectiveness of vendor invoice approval and processing. There are opportunities to better use technology to perform automated monitoring of discounts based on invoice receipt or acceptance date. Scanning technology can be configured to more accurately capture invoice information and decrease the amount of manual intervention required.

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<sup>2</sup> Some vendor invoices contain an available discount if payment is made early or in advance of a defined date.

<sup>3</sup> MarkView is the system that the City of Ottawa uses for automated invoice processing. This process receives an invoice from a vendor and reads key fields in the invoice for processing. Once processed, an AP clerk reviews the MarkView transaction details against the original invoice for completeness and accuracy prior to the verification and payment process.

Table 1: Summary of status of completion of recommendations

<b>Recommendations</b>	<b>Total</b>	<b>Complete</b>	<b>Partially complete</b>	<b>Not started</b>	<b>No longer applicable</b>
<b>Number</b>	7	2	3	1	1
<b>Percentage</b>	100%	29%	43%	14%	14%

## Conclusion

Management has fully completed two out of six recommendations that are still applicable.

Follow up of one recommendation relating to required approval prior to vendor master field changes has not yet started. The City did not configure the sensitive vendor master fields in SAP because a new Source-to-Pay solution, expected to be implemented in 2020, will address this recommendation. As such, the risk that payments may be made before sensitive vendor master fields are adequately reviewed and approved remains.

The three partially completed recommendations are as follows: retention of documentation that shows SOD conflicts have been assessed and resolved prior to granting enhanced system access; processes to track and report on late penalties; and automated monitoring of potential discounts based on invoice receipt date. Additional information regarding the status of each partially completed recommendation is detailed below.

The original audit found that while the process of identifying potential SOD conflicts exists and that documentation should be available, no evidence could be provided to demonstrate that the process was consistently applied. As such, the audit recommended that the City retain documentation, which demonstrates that in cases where enhanced system access is granted, SOD conflicts have been assessed and resolved prior to approval. Our follow-up work found that while the requirement to retain documentation has been formalized, documentation has not been consistently kept for all instances where enhanced system access was granted.

The original audit also recommended that management establish a process to track and report on late penalties paid as a result of AP internal processes. Our follow-up work confirmed that while AP did set up a designated expense account in MarkView to track late penalties and interest, the responsibility is on the business user to identify the late

penalty on an invoice and code it to the expense account. AP was not able to provide evidence as to how or when business users were notified about this account and the requirement for them to code late fees or interest charges to this account.

Finally, the original audit recommended that the City leverage existing technology to ensure the efficiency and effectiveness of AP operations, including automating the monitoring of potential discounts based on invoice receipt date. The system enhancements for monitoring and analytics were deferred and will be addressed as part of the new Source-to-Pay solution.

One of the seven original recommendations is no longer applicable. When a solution was investigated, it was found that the current systems cannot provide more granular reporting on business unit results.

The Office of the Auditor General met with management regarding the partially completed recommendations, and they have indicated that they intend to complete the outstanding recommendations.

## **Recommendations and responses**

### **Recommendation:**

That AP formalize the requirement and steps to complete the semi-annual “duplicate invoice analysis” in a procedure document.

### **Management Response:**

Management agrees with this recommendation.

The steps required to complete the semi-annual duplicate invoice analysis will be documented in a formal procedure by Q3 2019.

### **Recommendation:**

Before the change to the Pcard transaction allocation is implemented, AP should notify Pcard users of the risk of duplicate invoices and their responsibility to implement a process to ensure that payments made in MarkView have not already been paid through a Pcard.

**Management Response:**

Management agrees with this recommendation.

Supply Services will include a reminder on the monthly statements sent to all cardholders of the risk of duplicate invoices and their responsibility to implement a process to ensure that payments made in MarkView have not already been paid through a Pcard. This will be completed in Q1 2019.

**Acknowledgement**

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.

## Detailed report – Assessment of implementation status

The following information outlines management's assessment of the implementation status of each recommendation as of September 2017 and the Office of the Auditor General's (OAG) assessment as of November 2018.



**Recommendation #1**

Table 2: Status

<b>Management update</b>	<b>OAG assessment</b>
Complete	Partially complete

**Audit recommendation:**

That the City formalize the requirement to retain documentation which demonstrates that in cases where enhanced system access (beyond the standard access associated with the position) is granted, potential SOD conflicts have been assessed and resolved prior to approval.

**Original management response:**

Management agrees with this recommendation.

The Financial Process, Compliance & Systems unit within the Finance department has a formal process in that all access requests are approved by the supervisor of the individual requesting the access and by the business process owner within the Finance department. All requests are submitted to the SAP Support Center within the IT department. A standard SAP report is run for each request that identifies any segregation of duties issues. If there is one identified, action is taken to remove the conflict. Effective immediately, the Financial Process, Compliance & Systems unit will retain on file documentation which demonstrates that in cases where enhanced system access (beyond the standard access associated with the position) is granted, potential SOD conflicts have been assessed and resolved prior to approval. Management considers this recommendation to be complete.

**Management update:**

Implementation of this recommendation is complete further to the original management response.

**OAG assessment:**

OAG considers this recommendation partially complete.

The process described by management is formalized in the “SAP access and functional guidelines”. The guidelines contain procedures to determine if a conflict of interest

exists and requirements to retain documentation showing that SOD conflicts have been assessed and resolved.

SOD is important to ensure that payments are made only for goods and services received; and that responsibilities for creating the requisition and purchase order, receiving the invoice and making payment are dispersed between various individuals. SOD is necessary to mitigate the risk of potential errors and/or invoice fraud.

The Program Manager of Financial Management Information Systems also indicated that access is now position based in the AP department. When an individual leaves a position, their access is automatically removed. Likewise, when they move into a new role within AP, they are automatically granted the access rights for that position. This reduces the potential for SOD conflicts amongst AP staff.

The 2015 audit noted that documentation should be retained showing access approvals and confirming that additional access requests will not cause SOD issues. In order to assess whether documentation has been retained, OAG tested a sample of five system access changes made in the AP department between January 1, 2017 to April 1, 2018.

Two out of the five sampled access changes were automatically done by the system due to a change in the employees' role.

The remaining three sampled access changes were access requests made through the Marval ticketing system. All three had proper supervisor approval. For two out of the three samples, SAP reports, which serve to document the identification of any segregation of duty issues, were not retained. For the third sample, it was not necessary to run a SAP report because the individual was not previously a City employee.

The testing results show that documentation demonstrating that SOD was assessed is not always retained. Without formally maintaining documented access approvals and confirming that additional access requests will not cause potential SOD issues, there is the risk that granting this additional access may result in a SOD conflict.

## Recommendation #2

Table 3: Status

Management update	OAG assessment
Complete	Complete

### Audit recommendation:

That the City enforce the mandatory duplicate invoice check for all vendors within SAP and that the City formally undertake a duplicate invoice check analysis at least on an annual basis.

### Original management response:

Management agrees with this recommendation.

AP has performed the duplicate invoice check analysis annually over the past two years. The requirement to perform this analysis has been formalized in the AP “List of AP Monitoring Reports”.

AP has requested a configuration change be made to SAP that will default to apply the duplicate check to all vendors. IT has advised that, as per the current IT work plan and scope of work identified in this recommendation, this change will be completed by Q1 2016.

### Management update:

The duplicate hard-stop in SAP was successfully implemented in Q4 2016. This new functionality prevents any further processing of an invoice in SAP should the same invoice number be entered for payment against the same vendor account.

SAP configuration changes were also made in late Q4 2016, making the duplicate invoice check box field on vendor records mandatory. A further review of vendor accounts was conducted and all records found to be missing the check mark were updated. A review of master records conducted in Q3 2017 found all accounts properly contained the check mark in the duplicate invoice box.

In addition to the SAP hard-stop, bi-annual reviews continue to be part of Accounts Payable analytical work. Further process refinements to this review have strengthened the accuracy of the reporting by reducing the number of false positive results.

**OAG assessment:**

The actions as described in the management update are verified.

AP has enforced the mandatory duplicate invoice check for all vendors within SAP. OAG verified that as at June 13, 2018, all 79,818 vendors on the vendor master record had the duplicate invoice field checked off.

OAG observed the “duplicate hard-stop” and confirmed that it was working. The duplicate hard-stop programmed into SAP is an automated check that identifies an invoice as a duplicate if all three of the following fields are matched to an invoice already in the system: 1) invoice number, 2) invoice date and 3) vendor number.

In addition to the SAP hard-stop, on a semi-annual basis, analysis to detect duplicate invoices is performed by a Business Consultant. The results are forwarded to AP for further investigation.

OAG reviewed the duplicate invoice analysis done for June – December 2017 on payments to all City vendors. The analysis identified 106 possible duplicate invoices. AP determined that out of the 106 possible duplicates, there were 25 actual duplicate invoices, with a total value of \$29,964.63 that the City had overpaid. AP resolved the duplicates by crediting each of the vendor accounts for the duplicate amounts.

The requirement for semi-annual “duplicate invoice analysis” is not formalized in a procedure document; as such, if there is a change in key personnel, the semi-annual analysis may not be performed and duplicates may go undetected.

**Recommendation:**

That AP formalize the requirement and steps to complete the semi-annual “duplicate invoice analysis” in a procedure document.

**Management Response:**

Management agrees with this recommendation.

The steps required to complete the semi-annual duplicate invoice analysis will be documented in a formal procedure by Q3 2019.

**Lack of duplicate invoice check for purchasing cards payments**

While the “duplicate hard-stop” is applied to invoices that come to AP through the regular email channel (i.e. AP-CF@ottawa.ca), it is not applied to payments made through purchasing cards (Pcards). There is currently no preventative or detective

control in place to check that invoices paid with Pcards are not duplicates of invoices that were also sent to the AP inbox and processed in MarkView. This control weakness is a known issue to the AP department.

In one instance, a Pcard user encountered this situation when an invoice was already paid on their Pcard, but the vendor also emailed the invoice to AP-CF@ottawa.ca. When AP received the invoice in their inbox, it was processed as usual through MarkView, and a request was made to the department to pay the invoice. There is no control in place to detect that the invoice had already been paid. It is up to the Pcard user to identify the duplicate and notify AP to cancel the invoice in MarkView. Similar instances could occur in other departments. Some departments with a high volume of purchases may have greater difficulty in catching duplicate invoices and may not be aware of the risk of duplicate invoices.

The use of Pcards is encouraged, as it is a cost-effective method of procurement and payment for low dollar value, high-volume goods and services required for City purposes. However, the increased use of Pcards likewise increases the risk of duplicate invoice payments described above.

Management has been working towards a solution to permit a duplicate payment analysis between SAP and Pcard payments. Management anticipates that by early 2019, the invoice number and standing order number will be made a separate field in the Pcard transaction allocation. This will provide the necessary information to include Pcard payments in the semi-annual duplicate invoice analysis.

**Recommendation:**

Before the change to the Pcard transaction allocation is implemented, AP should notify Pcard users of the risk of duplicate invoices and their responsibility to implement a process to ensure that payments made in MarkView have not already been paid through a Pcard.

**Management Response:**

Management agrees with this recommendation.

Supply Services will include a reminder on the monthly statements sent to all cardholders of the risk of duplicate invoices and their responsibility to implement a process to ensure that payments made in MarkView have not already been paid through a Pcard. This will be completed in Q1 2019.

### Recommendation #3

Table 4: Status

Management update	OAG assessment
Partially complete	Not started

#### Audit recommendation:

That the City configure the sensitive vendor master fields in SAP to require approval by an independent person before changes to vendor information go live in the system.

#### Original management response:

Management agrees with this recommendation.

AP has requested that the system be configured to require a secondary review of all fields when a Vendor Master Record is created or changed. IT has advised that, as per the current IT work plan and scope of work identified in this recommendation this change will be completed by Q3 2016.

#### Management update:

In order to meet the objective of this recommendation, process changes have been implemented to streamline the daily vendor master audits by eliminating the previously fragmented and inefficient practices. These enhancements resulted in reduced effort by both staff responsible for updating the master records, as well as those performing the daily audits. Audit requirements were maintained, including the independent review of all daily vendor master activity by a third party, prior to the next scheduled payment run.

Accounts Payable is satisfied that these compensating controls adequately address the risks identified in the audit and will therefore not pursue the SAP customization required to implement this recommendation at this time. However, an automated vendor maintenance process will be a required component in the new Source-to-Pay solution, which is expected to be implemented by approximately 2019.

#### OAG assessment:

OAG considers this recommendation not started.

The City did not configure the sensitive vendor master fields in SAP to require approval prior to changes going live as recommended because a new Source-to-Pay solution expected to be implemented in 2020 will address this recommendation.

The process changes described by management intended to meet the objective of this recommendation were reviewed, and it was noted that process changes were made to the manual detective control of performing daily vendor master activity audits. The changes made were not related to the recommendation requiring independent approval prior to vendor creation and modification.

The only change made was to the daily vendor master audit process. When modifications to vendor master fields are necessary, they must be accompanied by supporting documentation. For instance, updated banking information must be supported by a void cheque or bank statement. Currently, documentation supporting the daily changes made to the vendor master fields are retained in a central location.

Prior to October 2016, some supporting documentation for vendor master field changes were stored in MarkView and others were retained in email. Now that all support for vendor changes are retained centrally in one location, this has resulted in reduced effort by staff responsible for updating the master records, and those performing the daily vendor change audits.

While the process change has led to efficiencies in the daily vendor master audit, it does not address the 2015 audit finding that no sensitive vendor fields have been defined for which a dual control is enforced. As such, when an employee creates a new vendor or updates an existing vendor, no approval is required before the change becomes active in the system. There is still a risk that a senior AP staff member may not review vendor changes in time to detect errors in the vendor master information before payments are released.

**Recommendation #4**

Table 5: Status

Management update	OAG assessment
Complete	Complete

**Audit recommendation:**

That the City refine system enhancements in MarkView to allow notifications to users to include a level of priority.

**Original management response:**

Management agrees with this recommendation.

Management has clarified the message that is sent to users when they are notified of a high priority invoice to be approved. Management considers this recommendation to be complete.

**Management update:**

Implementation of this recommendation is complete further to the original management response.

**OAG assessment:**

The actions as described in the management update are verified.

MarkView identifies discounts that are coming due or past due. Based on this information, the AP Supervisor manually triggers the following standard notification email:

*“Accounts Payable increased the priority of an invoice from XXXX (invoice #) because there is either a discount available, or a payment term due. Please process this invoice as soon as possible, so that the City may pay the invoice to meet either payment deadline.”*

The notification sent to the user now includes the words “there is either a discount available, or a payment term due”. This helps the user distinguish high priority invoices that require immediate action.



**Recommendation #5**

Table 6: Status

Management update	OAG assessment
Complete	Partially complete

**Audit recommendation:**

That the City establish a process to track and report on late penalties paid as a result of AP internal processes.

**Original management response:**

Management agrees with this recommendation.

AP will establish a process to track and report on late penalties paid by the end of Q2 2016.

**Management update:**

The City now uses a designated expense account to track late payments. As of August 31, 2017, there have been only \$3,294.36 of charges incurred in the designated account for this fiscal year. These charges were quickly reviewed and \$3,247.14, or 99%, relate to bank fees and interest paid by the City’s Business Improvement Areas (BIA) and were not the result of AP internal processes.

**OAG assessment:**

OAG considers this recommendation partially complete.

AP indicated that when there is a late fee on an invoice, business users are supposed to identify it and code the late fee into designated expense account number 508804 in MarkView. This account is labeled as “late pay / interest”. OAG observed this expense account in MarkView.

The amount in the expense account 508804 as at December 31, 2017 was \$6,094.86. The amounts in the account were late payments or interest charges incurred by the City’s Business Improvement Areas, not the AP department.

It appears that while the expense account was set up, it may not have been adequately communicated to business users. AP was not able to provide evidence as to how or

when business users were notified about this account and the requirement for them to code late fees or interest charges to this account.

Management indicated that currently there are a limited number of City contracts that allow for charging late penalties and that reliance is placed on business users to reject invoices with late penalties. On October 1, 2019, this will change due to an amendment to the *Construction Lien Act* ("the Act"). Currently, the Act does not mandate how quickly owners are required to pay contractors. The City's practice is to pay contractors on a net 30 days basis, upon acceptance of the invoice. Under the amended Act, the City must pay its contractors within 28 days from the delivery of an invoice. Failure to adhere to the payment timeline will result in interest penalties.

AP needs to ensure that business users are informed of the upcoming changes in 2019 and understand that any future late fees or interest charges are to be coded to the designated account.

## Recommendation #6

Table 7: Status

Management update	OAG assessment
Complete	No longer applicable

### Audit recommendation:

That the City enhance its current AP reporting program to include periodic reporting of AP results to individual business units.

### Original management response:

Management agrees with this recommendation.

AP currently prepares a performance dashboard that is shared with Finance senior management. The dashboard presents information at the City-wide level. AP will modify the dashboard and provide relevant information to the Financial Services Unit beginning in Q2 2016.

### Management update:

Accounts Payable (AP) worked with the Financial Systems & Reporting Branch to assess the degree to which the current dashboard could be broken down by individual business units. The assessment found that the current systems cannot provide more granular reporting for most measures.

The recommendation suggests that AP communicate results to business units to remind them of their AP responsibilities and accountabilities. AP implemented two compensating controls to address these concerns. AP performs weekly reports on missed discounts and follows up with the individuals involved on a case-by-case basis. AP also reviews outstanding invoices and increases the priority to the client on a case-by-case basis. Notifications and follow-up are performed for both of these tasks to ensure that AP responsibilities are communicated and maintained.

**OAG assessment:**

This recommendation was assessed as no longer applicable.

The AP department creates a monthly operations dashboard that reports on the following statistics:

- Average invoices validated daily;
- Average PO invoices processed daily;
- Average time to turnover validation queue;
- Average time for an invoice in AP queue;
- Oldest invoice held in AP (monthly average);
- Number of new EFT enrollees;
- Number of outstanding invoices past due; and
- Discounts taken.

However, it is not possible to breakdown the summary statistics in the dashboard by business unit because when AP processes batches of invoices, they are not identified by business unit. Therefore, there is no way for the current AP reporting program to provide periodic reporting of performance results to individual business units.

Instead, communication is done on an ad hoc, case-by-case basis when the AP Supervisor identifies specific outstanding invoices that are coming due or past due (as described in OAG's assessment to Recommendation #4).

Overall, AP analysis is performed on a City-wide basis. There is limited ability for reporting to business units on their specific results relative to AP.

**Recommendation #7**

Table 8: Status

Management update	OAG assessment
Partially complete	Partially complete

**Audit recommendation:**

That the City implement the tools necessary to allow for efficient monitoring and analytics such as: automated monitoring of potential discounts based on invoice receipt date, enabling the population of invoices and validation of only those fields highlighted for review and productivity analysis, throughput analysis by individuals/activities against performance indicators.

**Original management response:**

Management agrees with this recommendation.

In order to maximize the efficiency of operations through automation, AP has researched the following system enhancements;

- A configuration change to enable SAP to pay invoices based on receipt date rather than invoice date;
- A vendor self-serve package that will allow vendors to submit to and review their own accounts; and
- Analytics software that will allow tracking and monitoring of invoices, operations, errors, and productivity.

Management is preparing a business case for the tools identified above. The business case will be completed by Q1 2016 and will be presented to Corporate IT Management Team (CITMT) for review and approval at the next meeting.

**Management update:**

Since the audit of Accounts Payable, the City has been advised that the software manufacturer of MarkView (Kofax) has been acquired by Lexmark, who has indicated that they will no longer be supporting MarkView. As a result, Supply Services has initiated a project to replace the MarkView system with a new Source-to-Pay solution that will be implemented by approximately 2019. The City will continue to receive break/fix support from Lexmark until the new solution is implemented, however the City

will not receive any further technical upgrades or modifications. Management will ensure that the agreed upon system enhancements for monitoring and analytics will be addressed as part of the new Source-to-Pay solution.

In May 2017, Accounts Payable implemented some custom solutions to improve accuracy and efficiency. For example, a custom script was developed to identify invoices with discounts and increase the corresponding priority in the system. In addition, several reports were created to monitor and review key processing activities such as validation productivity and intake volumes for electronic submissions and paper submissions.

**OAG assessment:**

OAG considers this recommendation partially complete.

Since the City anticipates replacing the MarkView system with a new Source-to-Pay solution, no system modifications will be made in the meantime. At the time of the follow-up, management did not yet know what types of monitoring and analytic tools the new Source-to-Pay solution will offer.

OAG reviewed the custom script developed in May 2017 to identify PO invoices with discounts and increase their priority in the system.

While the current system capabilities prioritize invoices with available discounts, the default date for monitoring available discounts is still the invoice date. The capabilities of the system do not allow for monitoring potential discounts using the receipt or acceptance date of the invoice, as these dates are not being captured. It is still a manual exercise of having AP staff validate and making necessary changes in the system.

OAG verified that three AP reports were created in May 2017 to monitor and review key processing activities. These reports include information on the number of invoices received electronically through AP email and automatically scanned into MarkView, the number of documents in each phase of the AP process, and the number of documents processed by each employee in a given period.

Table 9: Status legend

<b>Status</b>	<b>Definition</b>
<b>Not started</b>	No significant progress has been made. Generating informal plans is regarded as insignificant progress.
<b>Partially complete</b>	The City has begun implementation; however, it is not yet complete.
<b>Complete</b>	Action is complete, and/or structures and processes are operating as intended and implemented fully in all intended areas of the City.
<b>No longer applicable</b>	The recommendation is obsolete due to time lapses, new policies, etc.