



CITY OF PALO ALTO OFFICE OF THE CITY AUDITOR

August 14, 2017

The Honorable City Council
Palo Alto, California

Policy and Services Recommendation to Accept the Continuous Monitoring Audit: Payments

The Office of the City Auditor recommends acceptance of the Continuous Monitoring Audit: Payments. At its meeting on April 25, 2017, the Policy and Services Committee approved and unanimously recommended that the City Council accept the report. The Policy and Services Committee minutes are included in this packet.

Respectfully submitted,

Harriet Richardson
City Auditor

ATTACHMENTS:

- Attachment A: Continuous Monitoring Audit: Payments(PDF)
- Attachment B: Policy and Services Committee Meeting Minutes Excerpt (April 25, 2017) (PDF)

Department Head: Harriet Richardson, City Auditor



CITY OF PALO ALTO OFFICE OF THE CITY AUDITOR

April 25, 2017

The Honorable City Council
Palo Alto, California

Continuous Monitoring Audit: Payments

In accordance with the Fiscal Year 2016 Annual Audit Work Plan, the Office of the City Auditor has completed the Continuous Monitoring Audit: Payments. The audit report presents two findings with a total of seven recommendations. The Office of the City Auditor recommends that the Policy and Services Committee review and recommend to the City Council acceptance of the Continuous Monitoring Audit: Payments.

Respectfully submitted,

A handwritten signature in cursive script that reads "Harriet Richardson".

Harriet Richardson
City Auditor

ATTACHMENTS:

- Attachment A: Continuous Monitoring Audit: Payments(PDF)

Department Head: Harriet Richardson, City Auditor



CITY OF
**PALO
ALTO**

Continuous Monitoring Audit: Payments

April 13, 2017



Office of the City Auditor

Harriet Richardson, City Auditor

Houman Boussina, Senior Performance Auditor

Marisa Lin, FISCal Intern

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OFFICE OF THE CITY AUDITOR

EXECUTIVE SUMMARY

Continuous Monitoring Audit: Payments

April 13, 2017

PURPOSE OF THE AUDIT:

The audit objective was to determine if data analytics and continuous monitoring can help the City identify duplicate vendor or vendor payment records.

REPORT HIGHLIGHTS

Finding 1: Implementing a continuous monitoring process can help the City identify duplicate invoice payments. The City recovered 17 (71 percent) of 24 confirmed duplicate invoice payments (Page 6).

Duplicate invoice payments result in both financial loss and operational inefficiency associated with recovery efforts. Our data analytics showed that the City paid at least 24 duplicate invoices totaling \$57,000 from July 2013 through October 2015. City staff recovered 17 (71 percent), or \$55,000 (97 percent) of those 24 duplicate payments prior to the audit. Although City staff recovered most of those duplicate payments, the City did not have effective procedures or tools to prevent or identify all duplicate payments. Continuous monitoring can help to more efficiently and predictably identify duplicate invoice payments and minimize the potential for financial loss.

Key Recommendations to that ASD:

- Build a continuous monitoring reporting process into the new ERP system to assist it in identifying potential duplicate invoices and seek recovery when duplicate payments have been made.
- Update its policies and procedures to require unique invoice numbers and to use credit memorandums or other accounting entries to correct invoice errors.
- Review the 121 potential duplicate invoice payments that were not in our sample and seek recovery of confirmed duplicate payments.

Finding 2: Numerous unneeded vendor records increase the risk of inappropriate an erroneous payments and payment records, as well as incorrect tax reporting (Page 2).

Unneeded vendor records, including duplicate or unused records that have not been inactivated, increase the risk of erroneous or duplicate payments, incorrect vendor payment records and tax reporting, inefficiency, and fraud. Almost 41,000 (94 percent) of the City's 43,642 active vendor records in SAP are unused, duplicates, inconsistent, and/or incomplete, which increases the risk of duplicate, erroneous, and fraudulent payments, as well as incorrectly reported tax information. Almost 36,000 (82 percent) of the 41,000 vendor records had not been used since before 2012. The City does not currently have monitoring procedures to identify duplicate or unused vendor records or effective procedures to prevent their entry or inactivate them in SAP.

Key Recommendations to ASD:

- Update its policies and procedures to provide clearer guidance regarding when to create a new vendor record, when to inactivate a vendor record, and to provide a coding standard for consistency.

- Build a continuous monitoring reporting process into the new ERP system to identify and inactivate duplicate, incomplete, or unused vendor records.
- Develop a requirement for the new ERP system to support multiple addresses, on an exception basis, for the same vendor.
- Clean the vendor master file before merging it into the new ERP system.

TABLE OF CONTENTS

OBJECTIVE.....	1
BACKGROUND.....	1
SCOPE	2
METHODOLOGY	2
FINDING 1:	
Implementing a continuous monitoring process can help the City identify duplicate invoice payments. The City recovered 17 (71 percent) of 24 confirmed duplicate invoice payments.	6
Finding 1 Recommendations	8
FINDING 2:	
Numerous unneeded vendor records increase the risk of inappropriate and erroneous payments and payment records, as well as incorrect tax reporting.....	10
Finding 2 Recommendations	14
APPENDIX 1: City Manager’s Response	15

ABBREVIATIONS

ASD	Administrative Services Department
EDD	Employment Development Department
ERP	Enterprise Resource Planning
IRS	Internal Revenue Service

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INTRODUCTION

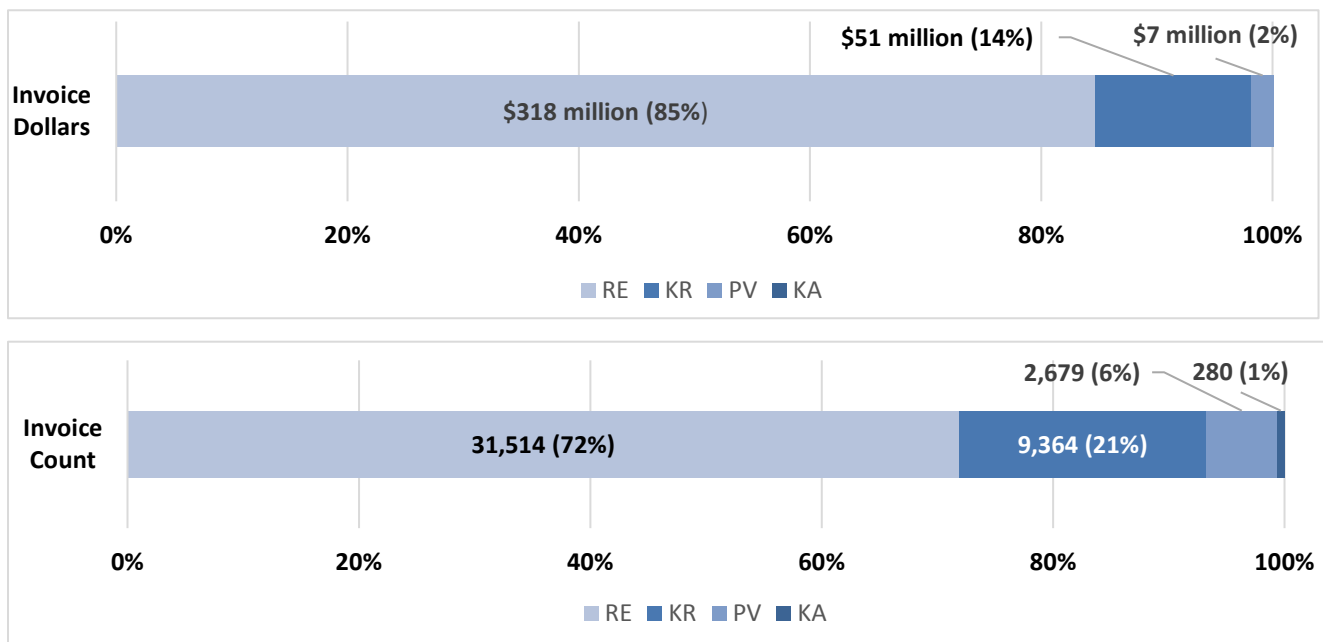
Objective

The audit objective was to determine if data analytics and continuous monitoring can help the City identify duplicate vendor payments or vendor records.

Background

The Administrative Services Department (ASD) is responsible for ensuring accurate, timely, and reliable financial transactions and reporting. ASD uses the City's SAP Enterprise Resource Planning (ERP) system to store and maintain vendor records and to process payments. Exhibit 1 shows the City's payments by invoice dollar and count from July 2013 through October 2015.

Exhibit 1
Invoice Payments and Count – July 2013 through October 2015



RE: Invoices associated with contracts and purchase orders; excludes some wired payments (see Scope section below).

KR: Invoices not associated with a contract or purchase order, such as an employee expense reimbursement.

PV: Transactions associated with payroll, such as tax withholding payments submitted to the Internal Revenue Service (IRS).

KA: Other, such as invoice reversals and credit memos.

Source: Palo Alto SAP system and ASD staff

Continuous monitoring and data analytics

Monitoring is one of five components of an effective internal control system.¹ Monitoring involves evaluating results so management can take corrective action as necessary and in a timely manner to achieve organizational goals and objectives. Although effective internal controls should prevent duplicate payments, periodic monitoring activities can help identify duplicate payments that slipped through the prevention controls. Continuous monitoring involves management's proactive review of data at regular intervals, often through an automated process, to identify errors or erroneous or incomplete data, such as duplicate invoices and payments; missed cost savings; and potential fraud, waste, or abuse. The results help management identify areas where its procedures can be strengthened. Data analysis software is often used to efficiently access business data and to develop and automate monitoring processes.

Scope

We used data analytic and sampling methodologies to identify duplicate vendors and vendor payments associated with invoices paid from July 2013 through October 2015. The SAP vendor payment data shown in Exhibit 1 exclude wire payments that the City processes outside of the SAP purchase order and invoice payment systems, including about \$600,000 in monthly payment card payments. We did not assess these wire payments or the detailed payment card data for duplicate payments. Our review of vendor records focuses only on those that the City used from January through October 2015.

Scope limitation

We could not apply data analytics to invoices that did not have an invoice number, which was 37 (0.1 percent) of 44,000 transactions. These 37 invoices totaled about \$2.3 million (0.6 percent) of \$376 million.

Methodology

To accomplish our audit objective, we:

- Interviewed ASD staff responsible for accounts payable,

¹ Internal control is the system of processes that an entity's oversight body, management, and other personnel implement to provide reasonable assurance that the organization will achieve its operational, reporting, and compliance objectives. The five components are control environment, risk assessment, control activities, information and communication, and monitoring. See U.S. Government Accountability Office, "Standards for Internal Control in the Federal Government," Washington, D.C., 2014, p. 9, available at <http://www.gao.gov/products/GAO-14-704G>.

procurement, and the City's SAP system to gain an understanding of the relevant data, system configurations, policies, and procedures.

- Conducted a risk assessment to identify and prioritize accounts payable and procurement risks that could be mitigated using continuous monitoring and data analytics.
- Reviewed manuals, published audit reports, whitepapers, and industry presentations on data analytics.
- Extracted SAP invoice and vendor data and used ACL™ Analytics software to identify potential duplicate invoices, vendors, and unreliable or inconsistent data.
- Met with ASD staff to validate the data analytics results and to understand underlying causes for “false positives,” or normal payments that our methodology flagged as anomalous.²
- Reviewed judgmental and random samples of invoices to understand causes of duplicate payments and to estimate the rate of occurrence, regardless of whether the City or the vendor later identified or corrected the duplicate payment.

Sampling methodology

We used sampling methods to determine if implementing continuous monitoring processes for accounts payable would benefit the City:

- We judgmentally selected and reviewed a sample of 15 duplicate invoices, which included a variety of payment types, vendor types, and invoice amounts that we identified through our analytics methodology, to understand the root causes for duplicates and false positives. Because we identified actual duplicate payments in our judgmental sample, we subsequently selected a statistically reliable random sample from the potentially duplicate payments identified through our data analytics to get a more precise estimate of the frequency of duplicate payments.
- We used ACL™ Analytics software to identify potential duplicate invoices and an industry-recognized methodology that searches for invoices with the same invoice number and amount. We

² A false positive is something that looks like it fits within the criteria used but actually does not. These payments were flagged because they had the same invoice number and amount as a prior invoice.

applied this methodology to accounts payable transactions that mostly consisted of invoices but also included transactions associated with payroll, invoice reversals, and credit memos (see Exhibit 1). We used analytics to eliminate duplicate invoice payments that had been refunded or blocked. Our procedures identified 295 potential duplicate invoice payments, which does not include the original invoice. Because there was sometimes more than one potential duplicate invoice, we summarized the 295 invoices into 174 invoice groups (i.e., groups of invoices with the same invoice number and amount).

- We selected 120 of the 174 invoice groups, based on a 95 percent confidence level and a targeted margin of error of ± 5 percent. This means that for every 100 random samples of such invoices, the true rate of one or more duplicate payments will be within the margin of error 95 percent of the time. Because this was a statistically reliable sample from the duplicate invoices that our data analytics flagged, our conclusions can be projected to the population of duplicate invoices flagged, but not to the entire population of 44,000 invoices. Based on the availability of records, we reduced our final sample size to 113 duplicate invoice groups, which included 287 invoices and increased the margin of error to ± 7.4 percent. The increased margin of error did not impact our meeting the audit objective.
- We also judgmentally selected and reviewed a sample of 12 vendors that the City paid using different vendor accounts to determine if the City issued accurate tax forms. The sample included a variety of vendor types and total payment amounts. Because these were judgmental samples, our conclusions cannot be projected to the total population of duplicate invoices and duplicate vendor accounts.

Data reliability

We used ACL™ Analytics software to assess the accuracy and completeness of relevant data. We also interviewed ASD staff who were knowledgeable about the data and brought data reliability concerns to their attention. We have included some of these concerns in the audit findings. Except as discussed under the Scope Limitation section above, the data were sufficiently reliable for the purposes of this report.

Compliance with government auditing standards

We conducted this audit in accordance with our Fiscal Year 2016 Annual Audit Work Plan and 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.

We would like to thank management and staff in the Administrative Services Department for their time, cooperation, and assistance during the audit process.

Finding 1

Implementing a continuous monitoring process can help the City identify duplicate invoice payments. The City recovered 17 (71 percent) of 24 confirmed duplicate invoice payments.

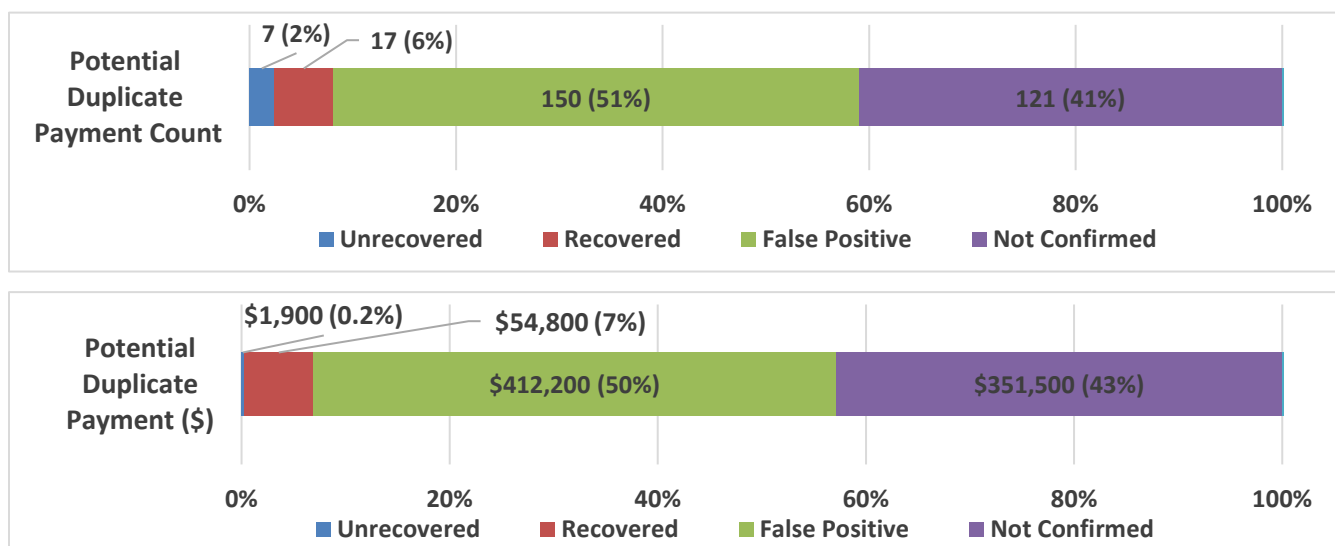
Our data analytics showed that the City paid at least 24 duplicate invoices totaling \$57,000 from July 2013 through October 2015. Although City staff recovered most of the duplicate payments prior to the audit, the City did not have effective procedures or tools to prevent or identify all duplicate payments. Continuous monitoring can help to more efficiently and predictably identify duplicate invoice payments and minimize the potential for financial loss.

The City paid 24 duplicate invoices

Duplicate invoice payments result in both financial loss and operational inefficiency associated with recovery efforts. Exhibit 2 shows that our data analytics identified 295 potential duplicate payments totaling about \$820,000. We confirmed that the City paid duplicate invoices totaling \$57,000 for 23 (20 percent) of the 113 invoice groups that we randomly selected and that one invoice group included two duplicate payments, for a total of 24 duplicate payments.

Exhibit 2

Data Analytics and Random Sample – July 2013 through October 2015



Note: The bars show the 295 potential duplicate payments, totaling \$820,000, that we identified through our data analytics. The Unrecovered, Recovered, and False Positive segments show the results of the 174 invoice groups that we selected for our random sample.

Source: Palo Alto SAP system and ASD staff

City staff recovered 17 of 24 duplicate invoice payments prior to our audit

ASD staff reported that the City had recovered 17 (71 percent) of the 24 confirmed duplicate payments, or \$55,000 (97 percent) of \$57,000, prior to the audit through periodic account analysis, contract monitoring, and vendor relationships. However, these informal practices are not included in the City's policies and procedures and may not reliably and efficiently identify duplicate invoices in SAP. Data analytics can supplement these practices to more efficiently, timely, and predictably identify duplicate payments and minimize the potential for financial loss.

Although there is no specific industry-established duplicate invoice payment rate for either the number or dollar amount of duplicate payments, one SAP analytics specialist estimates that continuous monitoring can result in duplicate payment recoveries of up to 0.02 percent of the amount of payments.³ Based on this estimate, continuous monitoring could help the City recover duplicate payments totaling about \$30,000 (0.02 percent) of \$150 million in average annual expenditures.

SAP configuration does not prevent all duplicate invoices

The City's SAP system has not been configured to prevent all duplicate invoice payments. A more restrictive configuration could better prevent duplicate payments and identify them if they occur. However, SAP cannot be configured to prevent duplicate invoice payments if a duplicate invoice has a different number (e.g., 1 and 1a), a duplicate invoice with a different date, or a different vendor number. Finding 2 discusses duplicate vendors in the City's master vendor file.

Invoice error corrections not always recorded in SAP

City staff entered credit memorandums for 3 (18 percent) of the 17 duplicate invoice payments that ASD resolved prior to the audit. Vendors sometimes issue credit memorandums to acknowledge invoice errors such as duplicate payments. Credit memorandums entered in SAP correct contract payment histories and budgets, vendor accounts, and financial statements. City departments often identify duplicate invoice payments and may recover funds before ASD accounting staff do, but because the City does not require the use of credit memorandums or other corrective entries, staff might

³ Martin Riedl, CEO, The dab:Group, "Cash Recovery Data Analytics," recorded webinar available at <http://www.highwateradvisors.com/webinar/cash-recovery-data-analytics-watch>

not correct the associated contract payment and budget history, vendor account, and financial statement entry. City staff sometimes collect a reimbursement check or arrange for the vendor to apply overcharges to future invoices without a credit memorandum or alternate corrective entries. Vendor account and purchase order errors can result in inaccurate contract budgets, vendor tax forms, City financial records used to track expenditures, and budgets by category. When City staff do enter credit memorandums, they do not always reference the erroneous or duplicate invoice. In those instances, data analytics and manual account reviews cannot readily identify that corrective action was already taken.

Unique invoice numbers could prevent false positives and increase reliability of analytic results

Ninety (80 percent) of the 113 potentially duplicate invoice payments that we randomly selected from our data analytics were false positives. The City does not require vendors to use unique invoice numbers or City departments to generate unique, sequential invoice numbers for employee reimbursements, recurring lease payments, and other City-generated payments.

ASD staff stated that they cannot require vendors to submit unique invoice numbers or credit memorandums; however, other organizations have implemented such policies.⁴

Recommendations

We recommend that ASD:

- 1.1. Build a continuous monitoring reporting process into the new ERP system to identify potential duplicate invoices based on information such as vendor, date, invoice number, and amount, and run the report at least monthly. ASD should review the results, seek recovery of duplicate payments, and identify and correct process deficiencies that allowed the duplicate payments to be processed.
- 1.2. Update invoice processing policies and procedures, and disseminate the updated policies to appropriate City staff, to require:

⁴ See following examples:

<https://finance.ocfo.gsa.gov/webvendors/OnlineInstructions.aspx>,

<http://www.unm.edu/~fssc/docs/P&APPolicies&Proc.pdf>

<https://www.osc.state.ny.us/agencies/guide/MyWebHelp/Content/XII/5/B.htm>

<https://www.progressive.com/Content/pdf/suppliers/supplier-invoice-requirements.pdf>

- a. Unique invoice numbers on all documents submitted for payment.
 - b. Use of credit memorandums or other accounting entries to correct invoice errors such as duplicate invoices.
 - c. Referencing of the erroneous or duplicate invoice using a unique identifier (e.g., invoice number) in credit memorandum entries in SAP.
- 1.3. Review the 121 unconfirmed potential duplicate invoice payments (see Exhibit 2), totaling about \$351,500, that were not in our sample and prioritize recovery of confirmed duplicates with a focus on more recent and high dollar duplicates. As part of its review, ASD should identify what caused the duplicate payment to occur and implement process improvements to reduce the potential for future duplicate payments.

Finding 2

Numerous unneeded vendor records increase the risk of inappropriate and erroneous payments and payment records, as well as incorrect tax reporting.

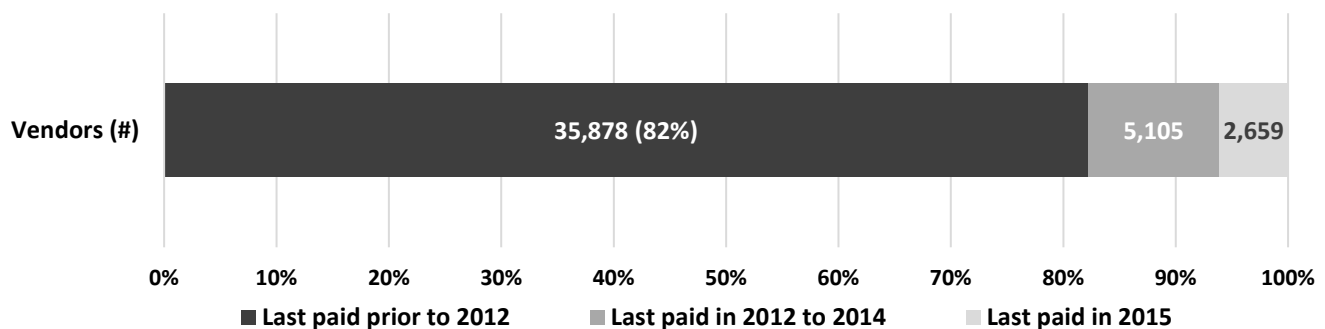
Almost 41,000 (94 percent) of the City's 43,642 active vendor records in SAP are unused, duplicates, inconsistent, and/or incomplete, which increases the risk of duplicate, erroneous, and fraudulent payments, as well as incorrectly reported tax information. The City does not currently have monitoring procedures to identify duplicate or unused vendor records or effective procedures to prevent their entry or inactivate them in SAP.

Many unneeded vendor records increase risk of erroneous payments and payment records

From January through October 2015, the City used only 2,659 (6 percent) of the 43,642 vendors in its master vendor file and, as shown in Exhibit 3, has not used 35,878 (82 percent) of the vendor records since before 2012. About 27,500 (63 percent) of the vendor records had not been used since before 2008. ASD staff stated that most of those vendor records were probably carried over from the City's prior financial system into SAP.

EXHIBIT 3

Active but Unused City Vendors – Most Recent Calendar Year Paid



Source: Auditor's Analysis of SAP Payment Data

Unneeded vendor records, including duplicate or unused records that have not been inactivated, increase the risk of erroneous or duplicate payments, incorrect vendor payment records and tax reporting, inefficiency, and fraud. For example:

- The City provided an inaccurate tax form to a vendor because the City used two separate vendor records to pay the vendor in calendar year 2014. Consequently, the City did not report to the

Internal Revenue Service (IRS) \$30,392 of reportable payments for that vendor.

- SAP cannot prevent or identify duplicate payments if the City pays a duplicate invoice using different vendor records. Duplicate vendor records are a leading cause of duplicate payments and one of the reasons for duplicate payments in the City (Finding 1).
- Inefficiency results when staff have to search numerous unneeded or duplicate vendor records to pay the appropriate vendor. Time is also wasted to update, purge, or inactivate unneeded vendor records. To process 1099 tax forms each year, staff manually identify and add together taxable payments for vendors that have duplicate records because the City does not have an automated process for doing this.
- Fraud could occur if an employee were to set up a fictitious vendor or modify the address on an unused vendor record and then use the record to submit false invoices. While the City has procedures to ensure payment accuracy and staff periodically review master vendor file changes, the risk of not identifying fraud increases with a large, uncontrolled vendor master file.

Many duplicate vendor records

Of the 2,952 vendors that the City paid from July 2008 through October 2015, 433 (15 percent) had the same tax identification or social security number as another vendor. Of the 2,659 vendors that the City paid from January through October 2015, 22 (1 percent) had the same tax identification or social security number as another vendor. While best practices recommend maintaining tight control over the vendor master file and eliminating duplicates, City procedures sometimes require creation of duplicate vendor records:

- Staff create duplicate vendor records to process invoices for a vendor that has a different “remit to” address than the vendor’s purchase order. An Institute of Management Administration guide suggests only entering the actual payment address in the vendor master file because the headquarters’ address is generally not needed.
- Staff previously created duplicate vendor records to reimburse some vendors for nontaxable payments. Although the City has stopped this inappropriate practice, it has not updated its procedures to reflect that change.

Incomplete vendor identifying information

Many of the 2,659 vendors did not have complete identifying information:

- 1,751 (66 percent) vendors did not have a phone number.
- 980 (54 percent) of 1,808 corporate and sole-proprietor vendors did not have either a tax identification or social security number, which would prevent the City from reporting income to the IRS on a 1099 tax form; 4 of the 980 were flagged as having reportable income. ASD Purchasing staff stated that they now require an Request for Taxpayer Identification Number and Certification (IRS Form W-9) for all vendors.
- 497 (19 percent) vendors either had only a post office box address or no address at all. ASD Purchasing staff stated that they now require a physical address for all vendors.
- 11 vendors did not have a vendor name, but we confirmed that there was no payment history for any of these vendors.

Inconsistent vendor identifying information

Many active vendors had inconsistently formatted information:

- Social security numbers were not formatted as “999-99-9999” and tax identification numbers were not formatted as “99-99999” for 30 (2 percent) of the 1,808 corporate and sole-proprietor vendors with a unique identifying number that the City paid in 2015.
- Address information was generally inconsistent throughout for capitalization, punctuation, and abbreviations (e.g., “DRIVE” vs. “Dr.”) because the City does not have coding standards for its vendor master file. One City employee who enters vendor records is aware of the California Employment Development Department’s (EDD) coding standards, which could be used as a basis for consistency in the City, because the City submits a list of sole proprietors to the EDD every 21 days and receives feedback if the address list does not meet the EDD’s standards. Data analytics work best to identify duplicates if there is a consistent naming convention and format.

Risk of IRS fines, inefficiency, and duplicate payments due to duplicate vendor records

Incomplete and inaccurate vendor records raise the risk of incurring IRS fines for inaccurate tax forms, inefficiency associated with potentially misrouted payments and maintenance of inconsistent vendor records, and duplicate payments due to undetected duplicate vendor records. Internal Revenue Code section 6723 prescribes a

penalty of \$50 per occurrence, up to \$100,000 per year, for reporting incorrect information or not reporting all required information. ASD staff is not aware of the IRS ever having fined the City for incomplete or inaccurate reporting of payments to vendors.

No procedures to validate the vendor master file

The City does not have monitoring procedures to identify and correct duplicate, incomplete, inaccurate, or unused vendor records or procedures to ensure complete and consistent entry of vendor information.

Continuous monitoring can mitigate some risks associated with incompatible duties⁵

The City does not restrict SAP access to prevent accounts payable staff from performing incompatible vendor payment tasks, such as having separate staff enter invoices, approve invoices for payment, and issue checks.⁶ This increases the risk for errors or fraudulent activity for the City's \$150 million in annual payments. For example, in what is known as a "fictitious-vendor scheme," the same person could create or modify a vendor record, enter a fraudulent invoice, and print a check. In another scenario, an employee could temporarily modify one of the many unused vendor records to route payment for a fraudulent invoice to his or her own address and alter the vendor record afterwards to hide the activity. City staff said that they avoid performing incompatible duties and that they have an informal procedure to periodically review changes to the vendor master file. Continuous monitoring to validate the City's vendor master file and ensure that payments are restricted to authorized and properly identified vendors is an efficient and objective way to reduce fraud risk. Other analytic techniques not within the audit scope, such as "Benford's Law" digital analysis, can also assist in identifying erroneous or fraudulent payments.⁷

⁵ "Incompatible duties" is a term used to describe multiple tasks in a process that should be performed by more than one person to limit the potential for errors and to prevent the employee from committing fraud and being able to cover it up.

⁶ In practice, City staff enter invoices in SAP for their department's purchases and authorized supervisors sign an SAP printout of purchases that they forward to ASD staff who review supporting documentation, enter final approval in SAP, and issue checks using SAP.

⁷ Benford's Law is a proven mathematical technique that predicts the expected frequencies of digits in a list of numbers (i.e., the number 1 is expected to be the first digit in a number 30 percent of the time, the number 2 is the first digit 18 percent of the time, the number 3 is the first digit 12 percent of the time, etc.). Deviations from the expected pattern can be an indicator of fraud.

Recommendations

We recommend that ASD:

2.1. Update its policies and procedures to provide clear guidance regarding:

- Information needed to create complete and accurate vendor master records.
- Not to create a new vendor record when one already exists for a vendor or its parent or subsidiary companies unless, on an exception basis, there is a documented business need that cannot be met (e.g., tracking payments and creating payments for a vendor with multiple taxpayer identification numbers).
- A coding standard for entering vendor information that includes guidance on punctuation, capitalization, spacing, abbreviation, special characters, and other potential variables in formatting identifying information in order to prevent duplicate records. This change should be incorporated in the new ERP system.

2.2. Build a continuous monitoring process into the new ERP system to:

- Review the vendor master file at least annually to identify duplicate, incomplete, or unused vendor records (i.e., vendor records not used during a time frame determined by ASD).
- Inactivate duplicate vendor records, enter missing identifying information based on reliable source documents such as a vendor-provided IRS Form W-9, and inactivate or archive unused vendor records.

2.3. Develop a requirement for the City's proposed new ERP system to support multiple vendor addresses to accommodate, on an exception basis, the need to create more than one vendor record for a business entity.

2.4. Clean the City's vendor master file in accordance with recommendations 2.1 and 2.2 before merging the data into the City's proposed new ERP system.

APPENDIX 1 – City Manager’s Response

TO: Harriet Richardson, City Auditor
FROM: James Keene, City Manager
DATE: April 12, 2017
PREPARER: Lalo Perez, Chief Financial Officer
SUBJECT: City Manager’s Response to the Procure to Pay Audit

The Administrative Services Department would like to thank the City Auditor and staff for their cooperation during the procure to pay audit.

Overall, the Administrative Services Department (ASD) agrees with recommendations in the Procure to Pay Audit and will address the points made in the recommendations. (Specific responses to the recommendations are provided in the audit response matrix.)

ASD would like to provide additional data to provide context to the audit. The following is summary data going back to 2011 (except as noted):

Average number of checks issued per year	10,931
Average number of invoices processed per year	18,736
Average value of PCard purchases processed per year (since 2013)	\$6,587,935
Average value of checks issued and PCard purchases per year (since 2014)	\$126,525,315

Accounts Payable consists of a team of four. The group processes a high volume of activity as presented in the data above with a high degree of accuracy. The team works closely with all city departments to uphold the city policy on travel reimbursements, invoice payments, business reimbursements and procurement card transactions. This involves providing training and guidance to city staff in addition to processing payments.

The audit points to 24 confirmed duplicate payments. While it may be ideal to have zero duplicate payments, staff believes that to be unrealistic given the extended timeframe such a review would require and the need to process all payments within a timely turn-around. However, staff believes with a new configuration in the SAP system there will be an enhanced ability to flag possible duplicate payments and for staff to intervene before making a payment. Of the 24 duplicate payments, 17 were identified by staff and resolved before the audit. When considering 24 duplicate payments against the average number of invoices processed per year, the figure is small or 0.1 percent. The potential value of these duplicates, if confirmed, is \$4,797 or 0.004 percent of the average value of checks issued and PCard purchases per year.

The City Manager has agreed to take the following actions in response to the audit recommendations in this report. The City Manager will report progress on implementation six months after the Council accepts the audit report, and every six months thereafter until all recommendations have been implemented.

Recommendation	Responsible Department(s)	Agree, Partially Agree, or Do Not Agree and Target Date and Corrective Action Plan	Status
Finding: 1. Implementing a continuous monitoring process can help the City identify duplicate invoice payments. The City recovered 17 (71 percent) of 24 confirmed duplicate invoice payments.			
<p>1.1. Build a continuous monitoring reporting process into the new ERP system to identify potential duplicate invoices based on information such as vendor, date, invoice number, and amount, and run the report at least monthly. ASD should review the results, seek recovery of duplicate payments, and identify and correct process deficiencies that allowed the duplicate payments to be processed.</p>	ASD	<p>Concurrence: Agree</p> <p>Target Date: TBD (date of ERP implementation)</p> <p>Action Plan: ASD agrees that a continuous monitoring reporting process should be part of the accounts payable process. ASD and City staff currently detects and recovers duplicate payments through periodic account analysis, contract monitoring and notifications from vendors. Per the auditor's recommendation, ASD will develop and document an internal control process to identify duplicates for the new ERP system.</p> <p>ASD is in the process of implementing a hard stop in the City's SAP system if the invoice date, invoice number, and invoice amount are the same. Previously, only a warning was issued and it was possible to still enter a duplicate invoice. This more restrictive configuration should decrease the number of duplicate payments.</p> <p>It is important to note that no system can prevent 100% of duplicate payments. However strong internal controls and entity -wide coordination can prevent most duplicates. With technological advances and changing requirements we have seen an increase in duplicate invoices arriving in Accounts Payable. Invoices come in to Accounts</p>	

Recommendation	Responsible Department(s)	Agree, Partially Agree, or Do Not Agree and Target Date and Corrective Action Plan	Status
		Payable from multiple sources, and while previously a best practice, requiring original invoices is no longer practical. Invoices are now emailed by the vendor, sent via DocuSign, by internal departments and sometimes also sent via U.S. mail.	
<p>1.2. Update invoice processing policies and procedures, and disseminate the updated policies to appropriate City staff, to require:</p> <ul style="list-style-type: none"> a. Unique invoice numbers on all documents submitted for payment. b. Use of credit memorandums or other accounting entries to correct invoice errors such as duplicate invoices. c. Referencing of the erroneous or duplicate invoice using a unique identifier (e.g., invoice number) in credit memorandum entries in SAP. 	ASD	<p>Concurrence: Partially Agree</p> <p>Target Date: 12/31/17</p> <p>Action Plan:</p> <ul style="list-style-type: none"> a. ASD will request invoice numbers from vendors, however it may not be practical to require all vendors to provide for unique invoice numbers on all documents submitted for payment. Some vendors such as phone companies do not provide invoice numbers. To follow-up with all vendors that do not provide an invoice number would slow down payment and require additional staff hours. However ASD staff will be more proactive in working with vendors that submit invoices without invoice numbers. We have created a "Master Invoice Key" to improve consistency for non- invoice payment requests such as employee reimbursements, rebates and refunds, dues, subscriptions and registration fees. This should mitigate risk of duplicate payments on these invoices. b. ASD requests a credit memo from the vendor, when possible. Not all vendors are set up to issue credit memos and sometimes a reimbursement check is 	

Recommendation	Responsible Department(s)	Agree, Partially Agree, or Do Not Agree and Target Date and Corrective Action Plan	Status
		<p>generated before we were aware of the duplicate payment. Sometimes the departments request that the vendor apply the credit or duplicate payment amount to future invoices without ASD staff's knowledge. ASD staff will include in the disseminated policy and procedures instructions to the departments explaining the process when/if they detect or are informed of a duplicate payment.</p> <p>c. Credit memorandums typically have their own unique identifier. This unique identifier often does not have any relationship to the invoice number on the invoice that that was paid more than once. ASD will add instructions in the Accounts Payable manual to reference the duplicate payment in the text field. However this field was not used in the audit and therefore would not have reduced the false positives.</p>	

Recommendation	Responsible Department(s)	Agree, Partially Agree, or Do Not Agree and Target Date and Corrective Action Plan	Status
<p>1.3. Review the 121 unconfirmed potential duplicate invoice payments (see Exhibit 2), totaling about \$351,500, that were not in our sample and prioritize recovery of confirmed duplicates with a focus on more recent and high dollar duplicates. As part of its review, ASD should identify what caused the duplicate payment to occur and implement process improvements to reduce the potential for future duplicate payments.</p>	ASD	<p>Concurrence: Agree</p> <p>Target Date: 06/30/17</p> <p>Action Plan: The data provided by the Auditor's office contained 132 unconfirmed potential duplicates, totaling approximately \$521K. In a preliminary review of the data, ASD determined that 118 of the 132 were not duplicates (\$506,103); 2 were duplicate entries but they were corrected before a payment was issued (\$5,388); 3 were duplicates that are resolved (\$4,888); 1 is an unresolved duplicate payment (\$275); and 8 require further research in order to make a determination (\$4,797).</p>	
<p>Finding: 2. Numerous unneeded vendor records increase the risk of inappropriate and erroneous payments and payment records, as well as incorrect tax reporting.</p>			
<p>2.1. Update its policies and procedures to provide clear guidance regarding:</p> <ul style="list-style-type: none"> • Information needed to create complete and accurate vendor master records. • Not to create a new vendor record when one already exists for a vendor or its parent or subsidiary companies unless, on an exception basis, there is a documented business need that cannot be met (e.g., tracking payments and creating payments for a vendor with multiple taxpayer identification numbers). • A coding standard for entering vendor information that includes guidance on punctuation, 		<p>Concurrence: Agree</p> <p>Target Date: 12/31/17</p> <p>Action Plan: ASD will update policies and procedures to provide information needed to create complete and accurate vendor master records. In some cases, for business needs, duplicate vendor records are needed in the current configuration of SAP to allow for different payment addresses, for instance.</p> <p>As part of the new ERP system City staff will clean-up and establish new vendors for a fresh start with the new ERP vendor database.</p>	

Recommendation	Responsible Department(s)	Agree, Partially Agree, or Do Not Agree and Target Date and Corrective Action Plan	Status
<p>capitalization, spacing, abbreviation, special characters, and other potential variables in formatting identifying information in order to prevent duplicate records. This change should be incorporated in the new ERP system.</p>			
<p>2.2. Build a continuous monitoring process into the new ERP system to:</p> <ul style="list-style-type: none"> • Review the vendor master file at least annually to identify duplicate, incomplete, or unused vendor records (i.e., vendor records not used during a time frame determined by ASD). • Inactivate duplicate vendor records, enter missing identifying information based on reliable source documents such as a vendor-provided IRS Form W9, and inactivate or archive unused vendor records. 	ASD	<p>Concurrence: Agree</p> <p>Target Date: TBD (date of ERP implementation)</p> <p>Action Plan: ASD agrees that a continuous monitoring process should be built into the new ERP system.</p> <p>When the new ERP is implemented, ASD will prepare a plan to review the vendor master file at least annually and inactivate unused, incomplete or inactive vendors.</p> <p>Part of the annual review of the master vendor file will also entail identifying and deleting and delete duplicate vendors. In addition, staff will also update the missing vendor record using information from sources mentioned in the recommendation. ASD staff will also work with ERP Team to explore other options to accommodate different "Remit To" addresses without creating a new vendor number.</p>	
<p>2.3. Develop a requirement for the City's proposed new ERP system to support multiple vendor addresses to accommodate, on an exception basis, the need to create more than one vendor record for a business entity.</p>	ASD	<p>Concurrence: Agree</p> <p>Target Date: N/A</p> <p>Action Plan: This request has already been made to ERP Consultants in their fact finding stage and is part of ERP requirements.</p>	

Recommendation	Responsible Department(s)	Agree, Partially Agree, or Do Not Agree and Target Date and Corrective Action Plan	Status
2.4. Clean the City's vendor master file in accordance with recommendations 2.1 and 2.2 before merging the data into the City's proposed new ERP system.	ASD	<p>Concurrence: Agree</p> <p>Target Date: TBD with adoption of new ERP system</p> <p>Action Plan: In order to provide consistency, ASD intends to begin from scratch with the Master Vendor File when the City adopts a new ERP.</p>	



POLICY AND SERVICES COMMITTEE TRANSCRIPT EXCERPT

Special Meeting
Tuesday, April 25, 2017

Chairperson Wolbach called the meeting to order at 7:00 P.M. in the Community Meeting Room, 250 Hamilton Avenue, Palo Alto, California.

Present: DuBois, Kou, Wolbach (Chair)

Absent: Kniss

Agenda Items

2. Continuous Monitoring Audit: Payments.

Chair Wolbach: It looks like you're still on the docket Harriet for the next...

Harriet Richardson, City Auditor: Yeah, I'm on all night long.

Chair Wolbach:all evening. Alright, so let's move onto - thank you, everybody, for that one. As people get resettled, out next one also is another audit. The continuous monitoring audit payments, item two on tonight's agenda.

Ms. Richardson: This is our audit of continuous monitoring of payments. To start, it's probably helpful for me to define the terms of continuous monitoring, which is a process for proactively reviewing data or information at regular intervals often through an automated process that uses some sort of data analytic software and it helps identify errors or erroneous information or incomplete data or information in records. In this audit, we used data analytic software to see if it would help the City identify duplicate payments - vendor payments or vendor records, which can increase the risk for duplicate or fraudulent payments. It's also important to note that monitoring is one of the five components of an effective internal control system, which are the processes that an organization implements to provide reasonable assurance that it will achieve its operational reporting and compliance objectives. There really is an expectation to be monitoring what you're doing and taking corrective action as necessary. The audit had two findings; the first one is that implementing a continuous monitoring process can help the City identify duplicate invoice payment and vendor records. I want to give you a little bit of background on the

TRANSCRIPT EXCERPT

process we went through because there was an article in Palo Alto online which I think slightly misstated what we actually found so I want to make sure that it's understood tonight what we - how we actually approached it and what we actually found. We started by identifying invoices that had the same invoice amount and invoice number, which identified about 1,400 potential duplicate payments out of the 44,000 invoices that the City paid from July 2013 - October 2015. We eliminated what's called a false positive, which are the records that the data analytic software identifies as potential duplicate payments but that we could confirm were not actually duplicate payments through some other piece of information. By starting with the same invoice number and same amount, we might realize that oh, there's a different date on them or it's a different vendor or it's a vendor that bills on monthly basis and it's a set amount and so it's not a duplicate payment. We eliminated all of those and by doing that, we narrowed the potential duplicate payments down to 295, which we sorted into about 174 invoice groups, meaning that, you had your original due payment, your duplicate payment and in some cases, there was more than one duplicate payment on the same invoice. Those totaled to about \$820,000 and that's where the number that was in the news article came from. Of those 174, we randomly selected 113 of the invoice groups and we confirmed that the City had made 24 duplicate payments for a total of \$57,000. In working with ASD, we had confirmed that the City had recovered 17 of those 24 payments, totaling \$55,000 of the \$57,000 prior to the audit. ASD is here tonight, again, they'll be able to address later, the work they have done since the audit to address the remaining duplicate payments, as well as the ones that we didn't look at through our audit sample. Our second finding, because of the duplicate - some of the duplicate payments were the result of having more than one record in our SAP system for the same vendor, we did additional work on the vendor master file, which led to our second finding that there are numerous vendor records in SAP that increased the risk of inappropriate and erroneous payments, as well as incorrect tax reporting. We again used the data analytic software to identify duplicate vendor records but we also found that by doing that, that the majority of the vendor records aren't even used anymore. Out of the 43,600 or so active vendor records in SAP, almost 41,000 hadn't been used since before 2015 and about 36,000 hadn't been used since before 2012. We also identified several errors in the vendor records, which increased the risk of incorrect tax reporting including making payments to different addresses for the same vendors and incomplete or inaccurately formatted vendor identification number. We identified one instance where this caused the City to under report \$30,000 of reportable payments for a vendor to the IRS. One of the

TRANSCRIPT EXCERPT

main reasons for having duplicate vendor records is that the City use to separate - create two records for a vendor when they determined that some income was reportable to the IRS and some of it was not and they would make one payment, under one vendor number and one under the other. Since that time, more recently, ASD has corrected that practice and recognizing that it's up to the vendor to determine what they report to the IRS and not up to us. Since that change, that should reduce the creation of the duplicate vendor records in the future. The audit includes seven recommendations including building a continuous monitoring reporting process into the new Enterprise Resource Planning System, to search for potential duplicate vendor payments and vendor records at regular intervals. We recommended updating policies and procedures regarding how to correct duplicate payments and what is needed to create a complete and accurate vendor master record. We also recommended that they review the 121 duplicate invoice payment groups that we did not review and that they clean the City's vendor master file before the records get transferred into the new ERP system, once that is implemented. The City Manager's Office agreed with six of the recommendations and partially agreed with one of the recommendations. That completes our presentation on that audit and I'm ready for questions.

Chair Wolbach: Thank you very much, Harriet and I'll turn it back to my colleagues. Lydia and Tom, do you have any questions that you want to start with? Lydia, go ahead.

Council Member Kou: Harriet, can you tell me why the manager's office partially went with that one last one that you said?

Ms. Richardson: Yes, so that recommendation had to do with requiring vendors to use unique invoice numbers and they said that they can't require -they can't direct vendors what to do as far as how they number their invoices. We did find some policies and procedures of other jurisdictions, where they actually do require that. I'm not quite sure how they get around that. Maybe the just don't do business with someone who won't comply with what their organization needs but it really had to do with how the organization submits their invoices.

Council Member Kou: Is there discussion of a resolution for that?

Ms. Richardson: We have not had an additional discussion about that since the audit.

Chair Wolbach: Tom?

TRANSCRIPT EXCERPT

Council Member DuBois: Yeah, just to pick up on that. So, is that the primary reason we get duplicates because the invoice numbers aren't unique?

Ms. Richardson: That's one of the reasons, invoice are not unique. Some it was that sometimes they would submit a duplicate invoice and we'd pay both of them. Sometimes an invoice would get paid - it would be paid because it was submitted from an electronic copy or end of the paper copy. There were various reasons why we got duplicate payments so I think just having a system where you can check on it regularly - right now, we have - they rely somewhat on the vendors to say we - you paid us twice. We'll give you a credit or something like that but having a program - an active process is really the best approach to identifying those rather than relying on the manual systems that they currently rely on to identify those.

Council Member DuBois: I'm just trying to understand. When you make a payment, don't you make it against an invoice so...

Ms. Richardson: Sometimes a vendor will submit a second invoice for the same item.

Council Member DuBois: With a different number?

Ms. Richardson: It may have the same number. That's how - that's originally how we identified it. They had the same number. The same invoice number. There were some - there may be some other payments that there were no invoice numbers and so we couldn't match them up but the ones that we identified had that the same invoice number.

Council Member DuBois: It sounds like the total dollar amount was relatively low?

Ms. Richardson: In the end, it ended up being relatively low.

Council Member DuBois: Ok, and what's the status of the ERP system?

Ms. Richardson: They are planning to issue an RFP. They have finished identifying the technical requirements and th last I heard, they were in the process of confirming those with departments. They were having meetings and they were planning to issue an RFP late summer time frame or so. Somewhere around there, August or September.

Council Member DuBois: Ok.

Ms. Richardson: It's going to be a staged implementation process and I

TRANSCRIPT EXCERPT

don't know that they've gotten to the point of figuring all of that out yet.

Council Member DuBois: If we just look at the recommendation I guess, in the back, I guess all of your recommendations here are going to be worked on?

Ms. Richardson: Yes. They agreed with all of them. They've given us an action plan on all of them except recommendation 1.2 and that's the one they partial agreed with but they actually gave us an implementation plan for how they will attempt to approach that.

Council Member DuBois: Ok. Since you stayed, do you want to add anything or make any comments?

David Ramberg, Assistant Director of Administrative Services: Yeah, I want to...

Chair Wolbach: If you could just identify yourself again for the record. Mr. Ramberg: Sorry, no problem.

Chair Wolbach: Thank you.

Mr. Ramberg: David Ramberg, Assistant Director of the Administrative Services Department. We oversee the accounts payable division and for - what we're - a couple comments. One, we - as you guys know, we run the SAP system here for the City's Enterprise Resource Planning System. We have a - the system is currently configured to identify when there might be an invoice that has the same number on it. The question that you were just asking and it's currently not a hard stop on the system, meaning it can be overwritten. In some of these instances that were found as duplicates, we had human error that had over - improperly overwritten an invoice, creating a duplicate invoice. In many of the instances where a duplicate was created, we caught it later on in the process before it was issued as payment. What we're doing now with SAP is within our current ability to configure SAP without any additional cost, we can put in a hard stop rather than a Staff override. That hard stop, what that will do is it will prevent that one individual - we only have three people that do this for the whole City so we can't have perfect segregation of duties but what we can do is we can create a hard stop and this is what we are configuring right now. So, probably the next update that we come back to you on this one, we'll have this done because it's in testing right now. Where a second - probably a supervisor will come over and review that hard stop and have to give an approval for it to go to the next stage and so we'll have a separate

TRANSCRIPT EXCERPT

set of eyes on that potential duplicate that the system would flag.

Council Member DuBois: But what - maybe it's not in the SAP but it would be in the new system. When that invoice comes up, does it show payments made against the invoice?

Mr. Ramberg: There is a payment history for the vendor, yes. There would be - I haven't seen the screen myself but there would - I would presume there - depending on which - one of the issues with SAP is that there are lots of levels and so you have to dig down sometimes to get to the relevant information. In this case - I don't know, Harriet, if you guys know off hand but I think - depending on what screen you're at, you can certainly get to additional payment information but it may not be at that exact screen where you're seeing the possible duplicate. That part I just don't know right now.

Council Member DuBois: Ok.

Ms. Richardson: Right. We have to extract things from - that would appear on different screens to actually see the duplicate payments.

Mr. Ramberg: Right.

Council Member DuBois: And...

Mr. Ramberg: That sounds about right.

Council Member DuBois: ...I assume p-cards are - there's an expense report filed after the fact?

Mr. Ramberg: Correct, so the purchase card is actually in a separate system. The high-level dollar amounts come over into SAP so that every department knows how much they spent because SAP is our final depository of all spending activity but for the p-card system, the detailed spend activity is in the JP Morgan cloud base hosted solution. Those - I don't think we found any duplicates there because that's...

Council Member DuBois: That was my question. Does this audit cover those payments?

Mr. Ramberg: Yeah, those are the - those are very much locked down on the Visa network and it's - I think it's - it would be very hard to duplicate those but in terms of review of those transactions - I didn't cover this before so this is probably salient. There's the purchase card holder, which is a Staff person. This purchase card holder has a supervisor so all the transactions of a purchase card holder are

TRANSCRIPT EXCERPT

reviewed every month by a supervisor and approved to accounts payable. Accounts payable then looks at all transactions across the City and selects a population to audit every month and they audit transactions for appropriateness and for other adherence to policies and procedures. Sometimes around travel, sometimes around the appropriateness of other purchases including green purchases and sometimes we'll flag - if we find something that's out of policy, we'll flag that and we'll bring that to the attention of the cardholder and we'll have corrective action if needed.

Council Member DuBois: Thank you. My last question - I mean, there are a lot of inactive vendors in the system so is there an idea with the new ERP system that maybe have the system automatically deactivate a vendor if they are not used for a number of years because it seems like it would build up over time.

Mr. Ramberg: Yeah, that's exactly right. I think Harriet cited some figures about how old our vendor database is and the majority of them are quite old; prior to 2012 and the reason for that is that we did not do a cleaning of our vendor database prior to bringing our vendor database into SAP. Our prior legacy system was something called [IFAS] back in the early - late 90's and early 2000s and when we went to SAP in, I think about 2003 or 2004, we just brought over all of those vendors. That's not good practice. We should have cleaned and cleansed the data more and that's the biggest reason for that large percentage. They have just been carried over but I think - Exactly. In the new system, what we want to do is a better practice, of course, is scrubbing - only bringing over active vendors. The ones that are actually part of active contracts or have had payments let's say, in the past 1-2 years or something like that. Coming up with criteria and then running some data tools against it to make sure that the vendor database is clean and then bringing over only 2,000-3,000 and I think that's what our current list of active vendors is.

Council Member DuBois: Yeah, so I mean that seems like a big part of it but then also - just a comment. If you can put in that automatic cleaning role kind of going forward so that not only do you clean it once but if you had some policy that a vendor deactivates if they are not used in 2-years that...

Mr. Ramberg: That's a really good point. Council Member DuBois: Yeah, so thank you. Chair Wolbach: Lydia?

Council Member Kou: Just so I'm clear when you transferred all the old

TRANSCRIPT EXCERPT

vendors, it's still into the SAP system...

Mr. Ramberg: Correct.

Council Member Kou: ...or is it the ER - what is - the ERP or SAP?
(Crosstalk)

Ms. Richardson: SAP is in the ERP, correct. Council Member Kou: SAP is in the ERP.

Ms. Richardson: It is an ERP. (Crosstalk) Enterprise Resource Planning system.

Council Member Kou: Ok.

Chair Wolbach: SAP is a vendor.

Ms. Richardson: Yes, and SAP is a vendor yes. (crosstalk) Council Member Kou: I got it.

Ms. Richardson: The City is in the process of planning a new replacement financial system that would-be Enterprise Resource Planning system so when we talk about the new ERP system, we're talking about something that is currently in the planning stages that would replace SAP.

Chair Wolbach: Great. I will once again - you two have asked great questions and I don't have any questions that I think would be useful I think, to add at this point so I'll ask if anyone wants to make a Motion?

Council Member Kou: I'll make the motion to recommend that the City Council accept the continuous monitoring audit for payments.

Chair Wolbach: I'll second that. Would you like to speak to your Motion? Council Member Kou: I think it's all said, thank you.

Chair Wolbach: Likewise. Ok, all in favor? Aye. That passed unanimously with Council Member Kniss absent. Thank you very much.

MOTION: Council Member Kou moved, seconded by Chair Wolbach to recommend the City Council accept the Continuous Monitoring Audit: Payments.

MOTION PASSED: 3-0 Kniss absent