



UCSB Audit and Advisory Services

Internal Audit Report

**Financial System Implementation:  
Accounts Payable Vendor Assessment**

January 22, 2013

**Performed by:**

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**Approved by:**

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Report No. 08-11-00022

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AUDIT AND ADVISORY SERVICES  
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January 22, 2013

To: Jim Corkill, Controller and Director  
Business and Financial Services

Re: **Financial System Implementation: Accounts Payable Vendor Assessment  
Audit Report No. 08-11-00022**

The Accounts Payable Vendor Assessment project began as part of the amended fiscal year 2010-11 University of California, Santa Barbara (UCSB) audit plan. Its initial purpose was to analyze accounts payable vendor data and perform certain comparisons with employee data from the campus payroll system. Audit and Advisory Services, in consultation with Business and Financial Services and the former UCSB Chief Information Security Officer, subsequently decided to change the scope of the project to include only accounts payable vendor data, with the primary purpose of providing information to assist in the cleansing of vendor data in the campus legacy accounts payable system, in preparation for the implementation of a new campus financial system and the transition to a new eProcurement system.

The work performed within the scope of the audit highlighted significant opportunities to cleanse existing vendor data, thereby facilitating data conversion in preparation for implementation of new campus systems and improving the integrity of the accounts payable process. We have provided Business and Financial Services and the Administrative Systems Program Management Office the complete results of our analyses for use in the data conversion process.

Detailed observations and management corrective actions are included in the following sections of the report. The cooperation and assistance provided during the review by Business and Financial Services and Information Systems and Computing staff was greatly appreciated. If you have any questions, please feel free to contact me.

Respectfully submitted,

A handwritten signature in black ink that reads "Robert Tarsia". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Robert Tarsia  
Director  
Audit and Advisory Services

Enclosure

cc: Chancellor Henry Yang  
Executive Vice Chancellor Gene Lucas  
Associate Vice Chancellor Ron Cortez, Administrative Services  
UCSB Audit Committee  
Senior Vice President and Chief Compliance and Audit Officer Sheryl Vacca

Administrative Systems Program Management Office

Brian Richard, Director  
Jessie Masek, Financial System Project Manager

Business and Financial Services

Jim Corkill, Controller and Director  
Steve Kriz, Assistant Director  
Jacob Godfrey, Associate Director  
Asger Pedersen, Accounts Payable Manager

Information Systems and Computing

Mary Wenzel, Programmer/Analyst

## **PURPOSE**

The Accounts Payable Vendor Assessment project began as part of the amended fiscal year 2010-11 University of California, Santa Barbara (UCSB) audit plan. Its initial purpose was to analyze accounts payable vendor data and perform certain comparisons with employee data from the campus payroll system, in part to identify potential violations of University of California (UC) and UCSB conflict of interest policies. Completion of the project was delayed due to Audit and Advisory Services staffing changes and the necessary implementation of encryption software to protect the security of employee data. When the project was resumed, Audit and Advisory Services, in consultation with Business and Financial Services and the former UCSB Chief Information Security Officer, decided to change the scope of the project to include only accounts payable vendor data, with the primary purpose of providing information to assist in the cleansing of vendor data in the campus legacy accounts payable system. This approach was considered useful as preparation for conversion of this data for the implementation of a new campus financial system and the transition to a new eProcurement system.

## **SCOPE, OBJECTIVES AND METHODOLOGY**

The scope of the audit included vendor data from the campus legacy accounts payable system, APEX, at July 20, 2012. The primary objectives of the revised project included identifying:

- Inactive vendors that could potentially be purged.
- Possible duplicate vendor files that could be eliminated or merged.
- Vendor records that were incomplete or potentially erroneous, including records with missing or apparently irregular data in key fields.
- Anomalies in vendor records such as incomplete and unusual vendor addresses and other unusual characteristics in vendor data that should be reviewed and addressed.

To accomplish our objectives, we:

- Conducted several interviews and group meetings with the Programmer/Analyst responsible for administering the campus Data Warehouse and personnel from Business and Financial Services familiar with the relevant data in the Data Warehouse and APEX.<sup>1</sup> The primary purpose of these meetings and interviews was to gain an understanding of the relevant data and its structure. Some of the meetings took the form of brainstorming sessions designed to access the historical knowledge of the participants, in an effort to gain an understanding of the data that was better than the available systems and user documentation.
- Reviewed available documentation of the APEX system and the Data Warehouse, including descriptions of the data tables and fields.
- Designed and executed several analyses of vendor data using Audit Command Language (ACL), specialized data analytics software commonly used in mining and analyzing large data sets. These analyses focused on identifying inactive vendors that could potentially be eliminated, identifying possible duplicate vendors, and identifying anomalies in vendor records such as incomplete and unusual vendor addresses.

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<sup>1</sup> The Data Warehouse is a central repository of data from multiple campus systems.

The methodologies followed in performing the analyses of vendor data were iterative in nature, interdependent, and otherwise fairly complex. Although several types of analyses were performed to meet each objective of the review, there are likely further analyses that would yield additional useful results. To ensure that recipients of this report and other stakeholders have sufficient information to proceed with conversion of vendor data for the implementation of new campus systems, Audit and Advisory Services has provided them with a separate 15-page document that describes the methodologies in detail, including the specific data files, tables, and fields used. We have also provided the complete results of our analyses for use in the data conversion process. These resources were prepared by the Protiviti consultant engaged for this review.

This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

## **BACKGROUND**

### *APEX*

APEX, or Accounts Payable Express, is UCSB's system for processing payments. UCSB purchased the software license in 1993, and the system was in use for all transactions by 1996, after it was customized for the existing financial system. The components of APEX include a vendor subsystem that allows for set-up, maintenance, and query of vendor information; an invoice subsystem that allows for entry, maintenance, and query of payable invoices, credits, and debit memos; a sub-ledger subsystem that includes a summary of vendor accounts and allows for query of vendor information; and a check subsystem that allows for recording and maintenance of checks and direct deposits. APEX is scheduled to be replaced during the first phase of UCSB's Financial System Implementation Project; the first phase currently has a completion date of September 2013.

### *Financial System Implementation Project*

The UCSB Financial System Implementation Project (FSIP) began in October 2010 for the purpose of assessing the current financial system's continued operational viability and identifying and evaluating near-term options to replace the system. As part of this evaluation, UCSB contracted with Gartner Consulting to provide an independent and objective assessment of the UCSB financial system's current state, to identify risks and recommend mitigation strategies for each risk, and to identify alternate financial system solutions approaches that should be considered. The campus subsequently decided to proceed with the FSIP through a phased implementation of Oracle/PeopleSoft Financials. The Administrative Systems Program Management Office (PMO) was established during 2012 to lead FSIP and the implementation of other critical campus systems.

### *UCSB Procurement Gateway*

The UCSB Procurement Gateway is the new campus eProcurement system. The Gateway project began in July 2011 and involved partnering with the UC standard provider of web-based procurement software, SciQuest, for the purpose of improving campus procurement practices by replacing outdated systems with a more functional online procurement system. The Gateway software integrates and streamlines the requisition, purchase order, order transmission, invoicing, receiving, and payment process with built in work-flow design, approvals, and reporting functions. Pilot department testing began in summer 2012, and full campus deployment by June 2013 is planned. Future plans for the system include integration with UCSB's new financial system.

## SUMMARY OPINION

The work performed within the scope of the audit highlighted significant opportunities to cleanse APEX vendor data, thereby facilitating data conversion in preparation for implementation of new campus systems and improving the integrity of the accounts payable process. We have provided Business and Financial Services and the Administrative Systems PMO the complete results of our analyses for use in the data conversion process.

Audit observations and management corrective actions are detailed in the remainder of the audit report.

## DETAILED OBSERVATIONS AND MANAGEMENT CORRECTIVE ACTIONS

### A. Significant Opportunities to Cleanse Vendor Data

The results of our analyses highlighted significant opportunities to cleanse APEX vendor data. Our results were generally consistent with the understanding of Business and Financial Services and other personnel regarding known issues with APEX vendor data, and include:

- *Inactive Vendors* – There were no payments since 2007 associated with approximately 72% of over 157 thousand vendor records, indicating a high number of inactive vendors that could potentially be purged. Further analyzing other vendor records not used in the past several years could identify other possible inactive records.
- *Apparent Duplicate Vendor Records* – There were one or more apparent duplicate vendor records associated with approximately 7% of almost 145 thousand<sup>1</sup> unique vendor names, suggesting that 9,827 unique vendors have one or more duplicates in the system.
- *Incomplete Vendor Records and Other Anomalies* – Our analyses identified a significant number of vendor records that were incomplete or potentially erroneous, including records with missing or nonconforming data in key fields. These results included incomplete and unusual vendor addresses and other characteristics that should be reviewed and addressed.

Tables 1 through 3 in the Appendix of this report include highlights of the results of our analyses and have been included for illustrative purposes only. As stated above, Audit and Advisory Services has provided the complete results of our analyses for use in the data conversion process, along with a separate document that describes our analyses methodologies in detail.

In preparation for implementation of new campus systems and to improve the integrity of the accounts payable process, Business and Financial Services and the Administrative Systems PMO should incorporate or consider the results of the vendor data analyses in the data conversion process.

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<sup>1</sup> The figures in the first two bullets (145 thousand vendor names and 157 thousand vendor records) differ due to the fact that the vendor file contains 157 thousand vendor records, but only 145 thousand of the records are associated with unique vendor names. The remaining 12 thousand vendor records are associated with duplicate vendor names.

**Management Corrective Actions**

Business and Financial Services will work with the Administrative Systems PMO and incorporate and consider the results of the vendor data analyses in the data conversion process for the implementation of new campus systems.

Audit and Advisory Services will follow-up on the status of this issue by August 31, 2013.



**Appendix – Summary Results of Vendor Data Analysis**

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Table 1	Recent Activity	
Year of Last Payment	Vendor Count	%
2012	8,343	5.30%
2011	4,567	2.90%
2010	5,032	3.20%
2009	10,318	6.56%
2008	8,141	5.18%
2007	7,642	4.86%
No Payment Found	113,239	72.00%
<b>Totals</b>	<b>157,282</b>	<b>100.00%</b>

Source: Auditor analysis of information contained in "Vendor Payments for Fiscal Years 2007 to 2012" files.

Table 2	Vendor Name Duplicates	
Number of Duplicates	Count	%
No Duplicates	134,956	93.21%
1 – 3	9,608	6.64%
4 – 8	178	0.12%
9 – 13	25	0.02%
14 – 18	6	*0.00%
19 – 23	5	*0.00%
24 – 28	2	*0.00%
29 – 49	3	*0.00%
<b>Total Unique Vendor Names</b>	<b>144,783</b>	<b>100.00%</b>

Source: Auditor analysis of accounts payable vendor records.

\*Immaterial percentages

**Appendix – Summary Results of Vendor Data Analysis**

<b>Table 3 Vendor Address Analysis</b>		
<b>Findings</b>	<b>Count</b>	<b>%</b>
Contains Address, City, State and Zip Code	169,425	84.92%
Contains Address, City, Country	7,770	3.89%
Incomplete Address	6,904	3.46%
Contains Address, City NOT State or Country	1,784	0.89%
City and State with No Zip Code	525	0.26%
Incorrect Address Format	4	0.00%
Payee Changed	2,023	1.01%
UCSB Vendor - UCSB	4,069	2.04%
UCSB Vendor - Mail Code	2,497	1.25%
UCSB Vendor - Account Number	21	0.01%
UCSB Vendor - Department	917	0.46%
Do Not Pay Vendor	99	0.05%
Do Not Use Vendor Address	26	0.01%
Duplicate Vendor	181	0.09%
KITP Vendor <sup>1</sup>	780	0.39%
Test Vendor	11	0.01%
Other Country - Country Field Not Populated	12	0.01%
Other Country - Country Field Populated	8	0.00%
Other Country - No City Value	16	0.01%
Other Country - No City or Country Value	45	0.02%
Reference to Other Vendor	2,369	1.19%
Reference to Call	8	0.00%
Comment / Note	24	0.01%
<b>Totals</b>	<b>199,518</b>	<b>100.00%<sup>2</sup></b>

Source: Auditor Analysis of accounts payable vendor records.

1 KITP is the Kavli Institute for Theoretical Physics.

2 Column does not total due to rounding.