June 29, 2017

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ACCOUNTING

RE: Kuali Financial System Workflow
   Report No. I2017-209

Internal Audit Services has completed the review of the Kuali Financial System (KFS) Workflow with regard to separation of duties over certain financial transactions and the final report is attached.

We extend our gratitude and appreciation to all personnel with whom we had contact while conducting our review. If you have any questions or require additional assistance, please do not hesitate to contact me.

Mike Bathke
Director
UC Irvine Internal Audit Services

Attachment

C: Audit Committee
I. MANAGEMENT SUMMARY

In accordance with the fiscal year (FY) 2016-2017 audit plan, Internal Audit Services (IAS) assessed the adequacy of separation of duties of certain KFS financial transactions. Separation of Duties (SOD) ensures that no one person has complete control over a financial transaction and at least two employees have reviewed and approved a transaction. IAS primarily used ACL data analytic software to analyze workflow transactional logs pertaining to certain Disbursement Vouchers (DV) documents to complete this review. The DV document is used to reimburse employees and nonemployees for expenses incurred for University business and to pay other vendors for performing a service or providing material goods for the University. IAS plan to complete similar analysis for other financial workflow processes in subsequent reviews.

Based on the limited review of the DV transactions, the KFS workflow processes are generally implemented in such a way as to reduce the opportunity for improper activity. However, opportunities for improvement were noted in the following areas:

**Capability to Report on SOD Violations** – Currently, KFS does not have reports that monitor SOD violations. IAS identified certain transactions that appear to have been approved and finalized by one person. However, it was indicated that most of these transactions (based on their payment reason codes) are considered low risk to Account Payable (AP). The KFS Management Advisory Group should enable the implementation of reports that monitor SOD violations. This observation is discussed in section V.1.

II. BACKGROUND

Launched in July 2014, KFS is a comprehensive software solution that integrates most of UCI’s core financial functions, including general ledger, procurement, budget, disbursing, and travel reimbursement. KFS replaced UCI’s 30-year-old antiquated legacy financial system that was paper-intensive and was progressively demanding to support. KFS is an open-source project managed by the Kuali Foundation. UCI has implemented a KFS Management Advisory Group to provide leadership and oversight of the financial system.
IAS worked with staff from the Accounting department to identify and obtain the pertinent data in KFS and data warehouse for this review.

### III. PURPOSE, SCOPE AND OBJECTIVES

The purpose was to review DV e-document workflow for potential SOD conflicts by system users. Utilizing ACL data analytics, IAS reviewed DV transactions that were finalized or processed from 01/07/2014 through 05/31/2017. IAS established the following objectives:

- Conduct preliminary survey discussions with the Accounting staff to identify significant areas of risk with regard to workflow;
- Collaborate with Accounting staff to obtain a direct read-only access and understanding of the pertinent KFS data; and
- Assess 100 percent of DV transactions for potential SOD issues (i.e. e-documents are appropriately initiated and approved.

### IV. CONCLUSION

In general, KFS workflow processes are implemented in such a way as to reduce the opportunity for improper activity. However, an opportunity for improvement was noted in implementing reporting capabilities to monitor for potential SOD violations.

Observation details and recommendations were discussed with management who formulated action plans to address the issues. These details are presented below.
V. OBSERVATIONS AND MANAGEMENT ACTION PLANS

1. Capability to Report on Meaningful SOD Violations

Background

SOD requires that at least one person completes a task to ensure that no one person has complete control over a financial transaction. In KFS, workflow describes the series of approvals and reviews an e-document must pass through before it is finalized.

The SOD review focused on finalized DV transactions that meet the following scenarios (1) the initiator, approver and payee was the same person, and (2) the approver and payee were the same person and (3) initiator and approver were the same. IAS did not review for SOD on Travel and Event Management (TEM) DVs’ that are Blanket Approved by the system because approvals on them occurred on the associated TEM document. DVs' with reason codes (1-6) are Blanket Approved.

The primary tables include Workflow Action Request, Workflow Action Taken and Document Header. Other tables used provided DV information, DV payee details, employee details and organization details. There were some challenges in conducting this review for example: (1) The need to join and manipulate data from different tables and sources, and (2) A lack of data dictionary that describes all the numerous codes in the tables without searching in other sources. However, IAS worked with staff from the Accounting department to identify and obtain the pertinent data.

Observation

Currently, KFS does not have reports that monitor SOD violations. IAS identified certain transactions that appear to have been initiated and approved (finalized) by one person. However, it was mentioned that based on payment reason codes, these transactions are considered low risk to Account Payable (AP). Table 1 provides a summary of these DV transactions by department and payment reason code.
Table 1: Summary of DV transactions by department

<table>
<thead>
<tr>
<th>Department</th>
<th>Payment Reason Code</th>
<th>DV Check Amount</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Office</td>
<td>F</td>
<td>$65,723.60</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>K</td>
<td>$32,100.00</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Z</td>
<td>$18,579.58</td>
<td>9</td>
</tr>
<tr>
<td>Financial Aid &amp; Scholarships</td>
<td>F</td>
<td>$56,468.00</td>
<td>3</td>
</tr>
<tr>
<td>Finance Services</td>
<td>F</td>
<td>$13,347.49</td>
<td>1</td>
</tr>
<tr>
<td>Housing</td>
<td>F</td>
<td>$1,945.00</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$188,163.67</strong></td>
<td><strong>110</strong></td>
</tr>
</tbody>
</table>

While KFS workflow appears to be working as intended, it is important to note that if the workflow process is not set up appropriately, there is no built-in logic that would prevent users who have privileged roles (e.g. a Fiscal Officer and Accounting Reviewer) from violating SOD since anyone with access to KFS can initiate a transaction. The KFS Management Advisory Group should enable the implementation of reports that monitor SOD violations and can be reviewed by Units and Central Accounting. With regard to the challenges in creating these reports, starting with a Data Model could enable the ability to create a centralized database that contains all the relevant information to generate reports.

**Recommended Management Action Plan**

With the support of KFS Management Advisory Group, Accounting and Office of Information Technology department will help establish Data Modelling of the workflow process. Expected Completion Date 08/08/2017. Next, we will create or implement tools that can be used to generate reports that monitor for SOD within the KFS workflow process. Expected date of implementation is dependent on the complexity of the model and reporting requirements.

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1 Used to refund/repayment to individual or agency
2 Used for cash advance
3 Used for other payments and explanation is required. The above were to reissue stale checks
4 The three transactions were ad hoc routed (FYI) to a Sr. Associate Director in the department
5 The transaction was Ad Hoc Routed (FYI) to Accounting