



# INTERNAL AUDIT DEPARTMENT



## Information Technology Audit: Clerk-Recorder County Agency Vital Records Index Access System

As of August 31, 2018

Audit No. 1840  
Report Date: March 22, 2019

### Number of Recommendations

0

Critical Control  
Weaknesses

3

Significant Control  
Weaknesses

3

Control Findings

## OC Board of Supervisors

Chairwoman Lisa Bartlett  
5th District

Vice Chair Michelle Steel  
2nd District

Supervisor Andrew Do  
1st District

Vacant  
3rd District

Supervisor Doug Chaffee  
4th District



# INTERNAL AUDIT DEPARTMENT

Information Technology Audit:  
Clerk-Recorder County Agency Vital Records Index Access System

March 22, 2019

## AUDIT HIGHLIGHTS

<p>SCOPE OF WORK</p>	<p>Perform an Information Technology audit of inter-county access to the County Agency Vital Records Index Access System administered by the Clerk-Recorder as of August 31, 2018.</p> <p>Clerk-Recorder manages and supports its County Agency Vital Records Index Access System that provides the County and public with an index of vital records (for birth, death, and marriage).</p>						
<p>RESULTS</p>	<ul style="list-style-type: none"> <li>• We found that controls over logical access to the County Agency Vital Records Index Access System were generally appropriate.</li> <li>• We found that certain physical security controls should be improved.</li> </ul>						
<p>RISKS</p>	<p>As a result of our findings, potential risks include:</p> <ul style="list-style-type: none"> <li>• Unauthorized access to, and exposure of, County Agency Vital Records Index Access System.</li> <li>• Unauthorized physical access.</li> <li>• Lack of accountability for external department use of County Agency Vital Records Index Access System data.</li> </ul>						
<p>NUMBER OF RECOMMENDATIONS</p> <table border="1" data-bbox="99 1438 391 1690"> <tr> <td data-bbox="99 1438 203 1522">0</td> <td data-bbox="203 1438 391 1522">CRITICAL CONTROL WEAKNESSES</td> </tr> <tr> <td data-bbox="99 1522 203 1606">3</td> <td data-bbox="203 1522 391 1606">SIGNIFICANT CONTROL WEAKNESSES</td> </tr> <tr> <td data-bbox="99 1606 203 1690">3</td> <td data-bbox="203 1606 391 1690">CONTROL FINDINGS</td> </tr> </table>	0	CRITICAL CONTROL WEAKNESSES	3	SIGNIFICANT CONTROL WEAKNESSES	3	CONTROL FINDINGS	<p>Opportunities for enhancing internal control include:</p> <ul style="list-style-type: none"> <li>• Create policies and procedures governing access-management to sensitive IT areas and user-access certification review for internal and external department users.</li> <li>• Eliminate or reduce the number of shared accounts utilized by external departments accessing County Agency Vital Records Index Access System data.</li> </ul>
0	CRITICAL CONTROL WEAKNESSES						
3	SIGNIFICANT CONTROL WEAKNESSES						
3	CONTROL FINDINGS						

Report suspected fraud, or misuse of County resources by vendors, contractors, or County employees to 714.834.3608



## INTERNAL AUDIT DEPARTMENT

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Audit No. 1840

March 22, 2019

To: Hugh Nguyen  
Clerk-Recorder

From: Scott Suzuki, CPA, Assistant Director *S Suzuki*  
Internal Audit Department

Subject: Information Technology Audit:  
Clerk-Recorder County Agency Vital Records Index Access System

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We have completed an Information Technology Audit of inter-county access and related County Agency Vital Records Index Access System controls administered by the Clerk-Recorder (C-R) as of August 31, 2018. Due to the sensitive nature of specific findings (restricted information), only the results for Finding Nos. 3, 4, and 6 immediately follow this letter. Results for the remaining findings are included in Appendix A (which is redacted from public release) and additional information including background and our objectives, scope, and methodology are included in Appendix B.

C-R concurred with all of our recommendations and the Internal Audit Department considers management's response appropriate to the recommendations in this report.

Results of this audit will be included in a future status report submitted quarterly to the Audit Oversight Committee (AOC) and the Board of Supervisors (Board). Additionally, we will request your department complete a Customer Survey of Audit Services, which you will receive shortly after the distribution of our final report.

We appreciate the courtesy extended to us by Clerk-Recorder personnel during our audit. If you have any questions, please contact me at 714.834.5509 or Jimmy Nguyen, IT Audit Manager II, at 714.834.2526.

### Attachments

Other recipients of this report:  
Members, Board of Supervisors  
Members, Audit Oversight Committee  
Clerk-Recorder Distribution  
Foreperson, Grand Jury  
Robin Stieler, Clerk of the Board of Supervisors  
Vavrinek, Trine, Day & CO., LLP, County External Auditor

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## RESULTS

<b>BUSINESS PROCESS &amp; INTERNAL CONTROL STRENGTHS</b>	<p>Business process and internal control strengths noted during our audit include:</p> <ul style="list-style-type: none"> <li>✓ Strong IT controls in place over County Agency Vital Records Index Access System access for provisioning and de-provisioning of C-R personnel.</li> <li>✓ External departments have limited access to Personally Identifiable Information (PII).</li> </ul>
<b>FINDING NO. 1</b>	Removed due to the sensitive nature of the finding.
<b>FINDING NO. 2</b>	Removed due to the sensitive nature of the finding.
<b>FINDING NO. 3</b>	<p><b>User Records for County Agency Vital Records Index Access System</b></p> <p>We found there was a discrepancy between records maintained by the C-R administrative support group and the C-R Information System group for the number of external department accounts with access to the County Agency Vital Records Index Access System, which could result in inaccurately charging user license fees to departments.</p>
<b>CATEGORY</b>	<p><b>Significant Control Weakness</b></p>
<b>RISK</b>	<p>Lack of consistent department review of authorized users and licenses access to County Agency Vital Records Index Access System increases risk of unauthorized access. Additionally, C-R may save on licensing costs by removing unused user licenses.</p>
<b>RECOMMENDATION</b>	<p>We recommend Clerk-Recorder develop a consistent periodic user account license certification review process for external departments to ensure licenses are appropriate and accurately accounted for.</p>
<b>MANAGEMENT RESPONSE</b>	<p><b>Concur.</b> The Clerk-Recorder will modify the user account license certification review process to increase the periodic review of license accounts, and incorporate review of the access forms.</p>



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<b>FINDING NO. 4</b>	<p><b>Department User Accounts</b></p> <p>We found five external department user accounts were inactive for more than three months. We also found one external department user account had never been used.</p> <p>For internal department user accounts, we found two accounts were inactive for more than three months, and three accounts had never been used.</p> <p>Note, none of the aforementioned accounts had privileged access to the County Agency Vital Records Index System.</p>
<b>CATEGORY</b>	<b>Control Finding</b>
<b>RISK</b>	Given the heightened risk associated with cybersecurity, not disabling inactive accounts increases the risk of unauthorized access.
<b>RECOMMENDATION</b>	We recommend Clerk-Recorder perform a formal management user-access certification review for appropriateness to ensure access is restricted to individuals with a direct business need and access no longer required is disabled.
<b>MANAGEMENT RESPONSE</b>	<p><b>Concur.</b> The frequency of use for the Vital Records Index Access System varies from agency to agency, depending on their business need. Some agencies access the system on a daily basis, while others only a few times each year. For accounts that are inactive for longer than 60 days, the Clerk-Recorder security policy will set the account password to expire, thus preventing the user from accessing the system without requesting a password reset and account access review. All user accounts that have been inactive for longer than one year will be disabled.</p>

<b>FINDING NO. 5</b>	Removed due to the sensitive nature of the finding.
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<b>FINDING NO. 6</b>	<p><b>Generic Accounts Utilized</b></p> <p>We found several generic user accounts were utilized and shared amongst employees from external departments. Best practices recommend that unique user accounts should be created and assigned to a single individual.</p>
<b>CATEGORY</b>	<b>Control Finding</b>



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<b>RISK</b>	Sharing generic user accounts that access vital records could result in lack of accountability.	
<b>RECOMMENDATION</b>	We recommend Clerk-Recorder consider eliminating or reducing the number of shared accounts utilized by external departments accessing County Agency Vital Records Index Access System data.	
<b>MANAGEMENT RESPONSE</b>	<b>Concur.</b> The Clerk-Recorder followed guidelines provided by the State to make the limited Vital Records Index available to county agencies in an electronic format. In order to provide more convenient and cost effective services to County agencies, the Department implemented system access accounts that allowed authorized users to access the system from their County workstation, without requiring the authorized user to travel to the Department office to specifically request each individual electronic record in person. This index information is the same data that is publicly available in the Clerk-Recorder office. The Department will consult with each agency to find ways to reduce or eliminate the total number of user access accounts.	
<b>AUDIT TEAM</b>	Jimmy Nguyen, CISA, CFE, CEH Scott Kim, CPA, CISA	IT Audit Manager II IT Audit Manager I



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## **APPENDIX A: RESTRICTED INFORMATION**

Content in Appendix A has been removed from this report due to the sensitive nature of the specific findings.



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## APPENDIX B: ADDITIONAL INFORMATION

<b>OBJECTIVES</b>	<p>Our audit objectives were to ensure controls provide reasonable assurance that:</p> <ol style="list-style-type: none"> <li>1. Logical access to the County Agency Vital Records Index Access System is appropriate such as limiting general access and privileged access to authorized individuals, and access is revoked timely upon termination.</li> <li>2. Physical access to the server room is limited to authorized individuals.</li> </ol>
<b>SCOPE &amp; METHODOLOGY</b>	<p>Our audit scope was limited to inter-county access controls and related IT controls over the County Agency Vital Records Index Access System administered by the C-R as of August 31, 2018. Our methodology included inquiry, observation, examination of documentation, and sampling of relevant items.</p>
<b>EXCLUSIONS</b>	<p>We did not review controls over external departments' administration of their personnel's access to County Agency Vital Records Index Agency System. Additionally, our scope did not include controls over other IT processes including those managed by third parties such as OCIT, SAIC, or Atos.</p>
<b>PRIOR AUDIT COVERAGE</b>	<p>We have not issued any audit reports for C-R with a similar scope within the last ten years.</p>
<b>BACKGROUND</b>	<p>The C-R office handles property records, marriage licenses and ceremonies, birth and death certificates, and oversees the Orange County Archives, where materials detailing the history of Orange County can be found.</p> <p>C-R manages and supports its County Agency Vital Records Index Access System that handles County vital records (birth certificates, death certificates, and marriage licenses). Certain County departments utilize the system to access vital records for various business purposes such as situations dealing with legal, law enforcement, and social services programs.</p> <p>Per H&amp;SC Section 102230(g), local registrars are permitted to release certain data fields in electronic format for public use. Orange County Clerk-Recorder has followed guidelines and conditions provided by the State of California to make the Vital Records Index available to general public and County agencies.</p>



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<b>PURPOSE &amp; AUTHORITY</b>	We performed this audit in accordance with the FY 2018-19 Audit Plan and Risk Assessment approved by the Audit Oversight Committee (AOC) and the Board of Supervisors (Board).
<b>PROFESSIONAL STANDARDS</b>	Our audit was conducted in conformance with the International Standards for the Professional Practice of Internal Auditing issued by the International Internal Audit Standards Board.
<b>FOLLOW-UP PROCESS</b>	<p>In accordance with professional standards, the Internal Audit Department has a process to follow-up on its recommendations. A first follow-up audit will generally begin six months after release of the initial report.</p> <p>The AOC and Board expect that audit recommendations will typically be implemented within six months or sooner for significant and higher risk issues. A second follow-up audit will generally begin six months after release of the first follow-up audit report, by which time all audit recommendations are expected to be implemented. Any audit recommendations not implemented after the second follow-up audit will be brought to the attention of the AOC at its next scheduled meeting.</p> <p>A Follow-Up Audit Report Form is attached and is required to be returned to the Internal Audit Department approximately six months from the date of this report in order to facilitate the follow-up audit process.</p>
<b>MANAGEMENT'S RESPONSIBILITY FOR INTERNAL CONTROL</b>	In accordance with the Auditor-Controller's County Accounting Manual No. S-2 Internal Control Systems: "All County departments/agencies shall maintain effective internal control systems as an integral part of their management practices. This is because management has primary responsibility for establishing and maintaining the internal control system. All levels of management must be involved in assessing and strengthening internal controls." Internal control should be continuously evaluated by management and weaknesses, when detected, must be promptly corrected. The criteria for evaluating internal control is the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control – Integrated Framework. Our audit complements, but does not substitute for department management's continuing emphasis on control activities and monitoring of control risks.
<b>INTERNAL CONTROL LIMITATIONS</b>	Because of inherent limitations in any system of internal control, errors or irregularities may nevertheless occur and not be detected. Specific examples of limitations include, but are not limited to, resource constraints, unintentional errors, management override, circumvention by collusion, and poor judgment. Also, projection of any evaluation of the system to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or the degree of compliance with the procedures may deteriorate. Accordingly, our audit would not necessarily disclose all weaknesses in the department's operating procedures, accounting practices, and compliance with County policy.



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APPENDIX C: REPORT ITEM CLASSIFICATIONS

Critical Control Weaknesses	Significant Control Weaknesses	Control Findings
<p>These are audit findings or a combination of audit findings that represent critical exceptions to the audit objective(s) and/or business goals. Such conditions may involve either actual or potential large dollar errors or be of such a nature as to compromise the department's or County's reputation for integrity. Management is expected to address <b>Critical Control Weaknesses</b> brought to its attention immediately.</p>	<p>These are audit findings or a combination of audit findings that represent a significant deficiency in the design or operation of internal controls. <b>Significant Control Weaknesses</b> require prompt corrective actions.</p>	<p>These are audit findings concerning the effectiveness of internal control, compliance issues, or efficiency issues that require management's corrective action to implement or enhance processes and internal control. <b>Control Findings</b> are expected to be addressed within our follow-up process of six months, but no later than twelve months.</p>



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### APPENDIX D: CLERK-RECORDER MANAGEMENT RESPONSE

Content in Appendix D has been removed from this report due to the sensitive nature of the management response.

