Disability Compensation Division’s Modernization Project – Electronic Case Management System (eCMS)

MONTHLY ON-SITE IV&V REVIEW REPORT
November 24, 2020 | Version 1.0

REPORT FINALIZED
January 13, 2021
Table of Contents

EXECUTIVE SUMMARY 3

Background 3
IV&V Dashboard 4

FINDINGS AND RECOMMENDATIONS BY ASSESSMENT AREA 6

Overall Rating 6
Program Governance 7
Project Management 8
Technology 11

Appendix A: IV&V Criticality and Severity Ratings 13
Appendix B: Industry Standards and Best Practices 15
Appendix C: Interviews, Meetings, and Documents 18
Appendix D: Prior Findings Log 23
Appendix E: Prior IV&V Reports 38
Appendix F: Comment Log on Draft Report 39
## Document History

<table>
<thead>
<tr>
<th>DATE</th>
<th>DESCRIPTION</th>
<th>AUTHOR</th>
<th>VERSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/04/20</td>
<td>Monthly On-site IV&amp;V Review Report Draft created</td>
<td>Julia Okinaka</td>
<td>0.0</td>
</tr>
<tr>
<td>01/13/21</td>
<td>Monthly On-site IV&amp;V Review Report Final updated to reflect no comments submitted in Appendix F. Corrected document title listed in Appendix C and severity rating in Appendix D.</td>
<td>Julia Okinaka</td>
<td>1.0</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

BACKGROUND

The State of Hawaii (State), Department of Labor and Industrial Relations (DLIR) contracted DataHouse Consulting, Inc. (DataHouse) for the Disability Compensation Division’s (DCD) Electronic Case Management System Project (eCMS Project). DLIR contracted Accuity LLP (Accuity) to provide Independent Verification and Validation (IV&V) services for the eCMS Project.

The Initial On-Site IV&V Review Report (IV&V Initial Report) was issued on August 30, 2019 and provided an initial assessment of project health as of June 30, 2019. Refer to the full Initial Report for additional background information on the eCMS Project and IV&V. The Monthly On-Site IV&V Review Reports (IV&V Monthly Reports) build upon the Initial Report to update and continually evaluate project progress and performance. Refer to Appendix E: Prior IV&V Reports for a listing of prior reports.

Phase 1 development and testing activities and Phase 2 requirements activities continued. The focus of our IV&V activities for this report included the completion of a two-month in-depth assessment of training and system development and the beginning of a two-month assessment of quality management and testing. IV&V has areas of limited visibility or access to project activities and documentation that may prevent a complete identification of project risks.

The IV&V Dashboard on the following two pages provides a quick visual and narrative snapshot of both the project status and project assessment as of November 24, 2020. Additional explanation is included in Findings and Recommendations by Assessment Area for new findings and in Appendix D: Prior Findings Log for prior report findings. Refer to Appendix A: IV&V Criticality and Severity Ratings for an explanation of the ratings.
Deficiencies were observed that merit attention and remediation in a timely manner.

** As of 11/15/20. IV&V unable to verify %.

** As of November 24, 2020

Only includes contracts. IV&V unable to validate total budget.

** Revised go-live pending.

Based on high-level timeline. Detailed schedule pending.
The Phase 1 Content Management go-live on November 25, 2020 was postponed due to additional time needed to resolve technical issues. DLIR and DataHouse are currently evaluating options for a revised go-live date in early 2021. Additionally, DLIR project resources continue to have limited availability due to other DLIR organizational priorities.

**Project Schedule:** Phase 1 Content Management and Phase 2 tasks are delayed while Phase 1 Case Management remains mostly on track. A revised project schedule is pending. Accuity is unable to fully assess schedule variances (refer to finding 2019.07.PM13).

**Project Costs:** Contract costs are within the total contract amounts; however, payment schedules were not revised for changes in deliverable timelines. Accuity is unable to fully assess cost variances (refer to finding 2019.07.PM12).

**Quality:** DLIR established success metrics but has not yet finalized quality metrics (refer to finding 2019.07.IT05). Accuity will evaluate progress towards achieving project goals when DLIR begins to collect metrics data.

The eCMS Project Executive Steering Committee (ESC) convened for the monthly meeting to discuss major risks and issues. DLIR project resources are challenged with balancing on-going Phase 1 Content Management and Case Management and Phase 2 activities along with high DLIR operational workloads. Limited availability impacts the DLIR project resources’ ability to timely complete and be fully engaged in project work. Additional DLIR stakeholder input and feedback are critical for developing a quality system and for overall project success. Strong foundational project management processes including resource, schedule, communications, and risk management (refer to Appendix D: Prior Findings Log) are key for optimizing limited DLIR project resources and minimizing further schedule delays. DLIR clarified their training plans and the Phase 1 Content Management training was rescheduled to be completed in December 2020. The Phase 2 requirements deliverable was also rescheduled to be completed in December 2020.

DataHouse resolved most of the technical issues encountered in the prior month related to the Phase 1 Content Management solution and held a demo for DLIR to verify functionality. Additional remediation work is expected to be completed in December 2020. Phase 1 Case Management development is progressing as scheduled. DLIR is behind on drafting the test cases for both Content Management and Case Management user acceptance testing (UAT). DLIR and DataHouse clarified testing plans and system development issue tracking processes. DLIR also completed a preliminary security risk assessment and high-level plan for security. DLIR and DataHouse still need to clarify quality management processes and metrics as well as plans for conversion of paper case files. IV&V does not have adequate visibility of development, testing, and data conversion activities to fully assess methodologies and progress.
FINDINGS AND RECOMMENDATIONS BY ASSESSMENT AREA

OVERALL RATING

The overall rating is assigned based on the criticality ratings of the IV&V Assessment Categories and the severity ratings of the underlying findings (see Appendix A: IV&V Criticality and Severity Ratings). The tables below summarize the criticality ratings for each IV&V Assessment Category in the three major IV&V Assessment Areas. Two IV&V Assessment Categories improved and one declined from the prior report. The overall rating primarily reflects the Phase 1 Content Management and Phase 2 requirements delays, limited DLIR project resources, and the need to improve many foundational project processes. DLIR and DataHouse continued to make progress to clarify processes and formalize plans in areas such as testing and security.

AT-A-GLANCE

Content Management go-live POSTPONED
REVISED project schedule pending
LIMITED availability of DLIR project resources
Improve FOUNDATIONAL project processes

<table>
<thead>
<tr>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>PROGRAM GOVERNANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>G</td>
<td>G</td>
<td>Governance Effectiveness</td>
</tr>
<tr>
<td>G</td>
<td>Y</td>
<td>Y</td>
<td>Benefits Realization</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>TECHNOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>System Software, Hardware, and Integrations</td>
</tr>
<tr>
<td>G</td>
<td>G</td>
<td>G</td>
<td>Design</td>
</tr>
<tr>
<td>G</td>
<td>G</td>
<td>G</td>
<td>Data Conversion</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Quality Management and Testing</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Configuration Management</td>
</tr>
<tr>
<td>R</td>
<td>Y</td>
<td>Y</td>
<td>Security</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>PROJECT MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Project Organization and Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Scope and Requirements Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cost, Schedule, and Resource Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Risk Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Communications Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Organizational Change Management (OCM)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Business Process Reengineering (BPR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Training and Knowledge Transfer</td>
</tr>
</tbody>
</table>
**PROGRAM GOVERNANCE**

<table>
<thead>
<tr>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>IV&amp;V ASSESSMENT CATEGORY</th>
<th>IV&amp;V OBSERVATION</th>
<th>FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>G</td>
<td>G</td>
<td>Governance Effectiveness</td>
<td>The eCMS Project Executive Steering Committee (ESC) continues to meet monthly to discuss project updates, risks, and issues. ESC guidance and oversight are needed to help the project find workable options with the limited budget and resources.</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Benefits Realization</td>
<td>No significant updates since the prior report. DLIR still needs to begin collecting and monitoring success metrics data (2019.07.PG05).</td>
<td>0 1 0</td>
</tr>
</tbody>
</table>
## PROJECT MANAGEMENT

### Project Organization and Management

<table>
<thead>
<tr>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>IV&amp;V ASSESSMENT CATEGORY</th>
<th>IV&amp;V OBSERVATION</th>
<th>FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Project Organization and Management</td>
<td>Project organization and management continues to be a challenge as DLIR and DataHouse try to find ways to keep Phase 1 and Phase 2 activities moving forward with the COVID-19 pandemic still limiting the availability of DLIR project resources (2020.03.PM01). Strong foundational project management processes (refer to Appendix D: Prior Findings Log) are critical to optimizing project performance and achieving project timelines. DLIR and DataHouse made progress to address some of the prior IV&amp;V findings (2020.07.PM01) including finalizing a key change request (2019.09.PM01), holding a walkthrough meeting for a key deliverable (2019.07.PM03), and planning and holding additional meetings to improve collaboration (2019.07.PM02).</td>
<td>0</td>
</tr>
</tbody>
</table>

### Scope and Requirements Management

<table>
<thead>
<tr>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>IV&amp;V ASSESSMENT CATEGORY</th>
<th>IV&amp;V OBSERVATION</th>
<th>FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Scope and Requirements Management</td>
<td>The Phase 2 requirements deliverable is still in process and DataHouse is now targeting completion in December 2020. DataHouse continued to refine Phase 1 requirements with DLIR Subject Matter Experts (SMEs) and also clarified the traceability of Phase 1 requirements to other documents and testing results. Phase 1 requirements traceability (2019.10.PM01) and documentation (2019.07.PM10) need additional improvement. DLIR’s review of their third-party vendor’s requirements assessment results is still pending.</td>
<td>0</td>
</tr>
</tbody>
</table>
### Findings and Recommendations

#### SEP OCT NOV IV&V ASSESSMENT CATEGORY IV&V OBSERVATION

| FINDINGS |
|---|---|---|
| NEW | OPEN | CLOSED |
| 0 | 4 | 0 |

**Cost, Schedule, and Resource Management**

The Phase 1 Content Management go-live on November 25, 2020 was postponed due to additional time needed to resolve technical issues. DLIR and DataHouse are currently evaluating options for a revised go-live date in early 2021. There are also delays in Phase 2 requirements and select Phase 1 Case Management tasks. Improving schedule management processes (2019.07.PM13) are key to minimizing further schedule delays.

Inadequate DLIR project resources (2019.07.PM14) continues to impact the eCMS Project. DLIR project resources are challenged with balancing on-going Phase 1 Content Management and Case Management and Phase 2 activities along with high DLIR operational workloads stemming from the COVID-19 pandemic (2020.03.PM01). Limited availability impacts their ability to timely complete and be fully engaged in project work including reviewing and providing feedback on the system build. DLIR stakeholder input and feedback are critical for developing a quality system and for overall project success. DLIR and DataHouse are planning to schedule additional meetings to provide a more structured schedule for DLIR project resources to perform system reviews and to increase engagement in the project. Effective resource management (2019.09.PM02) is key to optimizing limited DLIR project resources.

Improvements are needed to track and monitor all project costs and adjust payment schedules for changes in deliverable timelines (2019.07.PM12).

| FINDINGS |
|---|---|---|
| NEW | OPEN | CLOSED |
| 0 | 1 | 0 |

**Risk Management**

DLIR and DataHouse continued regular discussions of risks and made some progress to address previously identified IV&V risks and issues (refer to Appendix D: Prior Findings Log). Timely execution of remediation plan tasks is still needed (2019.07.PM09).
### Findings and Recommendations

**SEP OCT NOV IV&V ASSESSMENT CATEGORY**

<table>
<thead>
<tr>
<th>Category</th>
<th>IV&amp;V OBSERVATION</th>
<th>FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communications Management</strong></td>
<td>Weekly meetings with electronic submission pilot group stakeholders continued; however, the planned Phase 1 Content Management daily standup meetings between DLIR and DataHouse were postponed to begin in December 2020 due to changes in the go-live timeline. DLIR and DataHouse are also planning to schedule additional meetings in December 2020 with DLIR project resources to increase engagement and feedback on the system build. Effective and timely communications with all impacted stakeholders (2019.07.PM07) and in all areas of the project (2019.07.PM06) are still needed.</td>
<td>0 2 0</td>
</tr>
<tr>
<td><strong>Organizational Change Management (OCM)</strong></td>
<td>Some OCM is occurring as an indirect result of other project communications and participation in on-going project meetings. A more structured OCM approach is still needed (2019.07.PM08) to ensure stakeholders accept and embrace changes.</td>
<td>0 1 0</td>
</tr>
<tr>
<td><strong>Business Process Reengineering (BPR)</strong></td>
<td>BPR improvements continue to be delivered through development sprints. IV&amp;V does not have a complete understanding of the BPR approach during the requirements stage and will review the Phase 2 requirements deliverable expected in December 2020 to further assess BPR.</td>
<td>0 0 0</td>
</tr>
<tr>
<td><strong>Training and Knowledge Transfer</strong></td>
<td>The remaining DataHouse Phase 1 Content Management train-the-trainer sessions were postponed again to early December 2020 due to additional time needed to address technical issues. DLIR has an informal plan for their DLIR-led Phase 1 Content Management training sessions to occur in December 2020 for UAT testers and jointly with Phase 1 Case Management training in 2021 for other DLIR users. Phase 1 Content Management knowledge transfer sessions did not occur due to changes in the go-live timeline. IV&amp;V will assess the knowledge transfer approach as the sessions occur.</td>
<td>0 0 0</td>
</tr>
</tbody>
</table>
### Findings and Recommendations

#### SEP OCT NOV IV&V ASSESSMENT CATEGORY

<table>
<thead>
<tr>
<th>Category</th>
<th>IV&amp;V OBSERVATION</th>
<th>FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Software, Hardware, and Integrations</td>
<td>Development of the Phase 1 Content Management solution was extended due to additional time needed to address technical issues. DataHouse held a demo for DLIR to verify that technical issues were resolved. DataHouse expects to complete the additional remediation work in early December 2020. DLIR and DataHouse established a process for Content Management system development feedback and issue tracking. The Content Management go/no-go criteria still need to be finalized (2020.09.IT01). Phase 1 Case Management Epic 4 development is progressing as scheduled. The interface solution remains unclear (2019.07.IT02). IV&amp;V does not have adequate visibility of development and integration activities to fully assess methodologies and processes.</td>
<td>0 3 0</td>
</tr>
<tr>
<td>Design</td>
<td>DataHouse continues to refine the Content Management and Case Management design during development and periodically update design documents. Security design is covered in the Security IV&amp;V Assessment Category.</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Data Conversion</td>
<td>The Phase 1 Content Management data conversion bulk migration was put on hold due to changes in the go-live timeline. DLIR is still exploring options for Phase 1 Case Management paper file conversion and details of the data conversion scope, approach, and resources still need to be discussed (2019.11.IT01). IV&amp;V does not have adequate visibility of data conversion activities to assess the progress or approach for data conversion. Additionally, an unsupported legacy system may impact data conversion (2019.09.IT03).</td>
<td>0 2 0</td>
</tr>
</tbody>
</table>
### Findings and Recommendations

<table>
<thead>
<tr>
<th>IV&amp;V ASSESSMENT CATEGORY</th>
<th>IV&amp;V OBSERVATION</th>
<th>FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Management and Testing</td>
<td>DataHouse continues to perform various system and integration testing. DLIR and DataHouse made progress to clarify test plans and testing roles and responsibilities (2020.02.IT01). DLIR is behind on drafting Phase 1 Content Management and Case Management test cases and needs to finalize their own test plan (2019.10.IT01). IV&amp;V does not have adequate visibility of DataHouse or DLIR testing activities or documentation to fully assess methodologies and progress. Additionally, the DataHouse and DLIR quality management plans and approach have also not yet been finalized (2019.07.IT05).</td>
<td>0 3 0</td>
</tr>
<tr>
<td>Configuration Management</td>
<td>No significant updates since the prior report. A comprehensive configuration management plan including the DLIR approval process is still pending (2019.07.IT06).</td>
<td>0 1 0</td>
</tr>
<tr>
<td>Security</td>
<td>DLIR completed a preliminary security risk assessment (SRA) and evaluated areas of risk. DLIR has a high-level plan and timeline to continue evaluating and implementing security tools and controls. DLIR and ETS meet regularly to discuss and align plans for implementing security policies and procedures. DLIR’s formal security management plan (2019.07.IT07) and security policies (2019.10.IT02) are still pending.</td>
<td>0 2 0</td>
</tr>
</tbody>
</table>
Appendix A: IV&V Criticality and Severity Ratings

IV&V Criticality and Severity Ratings

Criticality and severity ratings provide insight on where significant deficiencies are observed and immediate remediation or risk mitigation is required. Criticality ratings are assigned to the overall project as well as each IV&V Assessment Area and IV&V Assessment Category. Severity ratings are assigned to each risk or issue identified.

Criticality Rating

The criticality ratings are assessed based on consideration of the severity ratings of each related risk and issue within the respective IV&V Assessment Area and IV&V Assessment Category, the overall impact of the related findings to the success of the project, and the urgency of and length of time to implement remediation or risk mitigation strategies. Arrows indicate trends in the project assessment from the prior report and take into consideration areas of increasing risk and approaching timeline. Up arrows indicate adequate improvements or progress made. Down arrows indicate a decline, inadequate progress, or incomplete resolution of previously identified findings. No arrow indicates there was neither improving nor declining progress from the prior report.

A **RED**, high criticality rating is assigned when significant severe deficiencies were observed and immediate remediation or risk mitigation is required.

A **YELLOW**, medium criticality rating is assigned when deficiencies were observed that merit attention. Remediation or risk mitigation should be performed in a timely manner.

A **GREEN**, low criticality rating is assigned when the activity is on track and minimal deficiencies were observed. Some oversight may be needed to ensure the risk stays low and the activity remains on track.

A **GRAY** rating is assigned when the category being assessed has incomplete information available for a conclusive observation and recommendation or is not applicable at the time of the IV&V review.

**TERMS**

**RISK**
An event that has not happened yet.

**ISSUE**
An event that is already occurring or has already happened.
Severity Rating

Once risks are identified and characterized, Accuity will examine project conditions to determine the probability of the risk being identified and the impact to the project, if the risk is realized. We know that a risk is in the future, so we must provide the probability and impact to determine if the risk has a Risk Severity, such as Severity 1 (High), Severity 2 (Moderate), or Severity 3 (Low).

While a risk is an event that has not happened yet, an issue is something that is already occurring or has already happened. Accuity will examine project conditions and business impact to determine if the issue has an Issue Severity, such as Severity 1 (High/Critical Impact/System Down), Severity 2 (Moderate/Significant Impact), or Severity 3 (Low/Normal/Minor Impact/Informational).

Findings that are positive or preliminary concerns are not assigned a severity rating.

**TERMS**

**POSITIVE**
Celebrates high performance or project successes.

**PRELIMINARY CONCERN**
Potential risk requiring further analysis.

**SEVERITY 1: High/Critical level**

**SEVERITY 2: Moderate level**

**SEVERITY 3: Low level**
## Appendix B: Industry Standards and Best Practices

<table>
<thead>
<tr>
<th>STANDARD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADA</td>
<td>Americans with Disabilities Act</td>
</tr>
<tr>
<td>ADKAR®</td>
<td>Prosci ADKAR: Awareness, Desire, Knowledge, Ability, and Reinforcement</td>
</tr>
<tr>
<td>BABOK® v3</td>
<td>Business Analyst Body of Knowledge</td>
</tr>
<tr>
<td>DAMA-DMBOK® v2</td>
<td>DAMA International’s Guide to the Data Management Body of Knowledge</td>
</tr>
<tr>
<td>HIPAA</td>
<td>Health Insurance Portability and Accountability Act of 1996</td>
</tr>
<tr>
<td>MARS-E v2.0</td>
<td>CMS Minimum Acceptable Risk Standards for Exchanges – Exchange Reference Architecture Supplement</td>
</tr>
<tr>
<td>MITA v3.0</td>
<td>Medicaid Information Technology Architecture</td>
</tr>
<tr>
<td>PMBOK® v6</td>
<td>Project Management Institute (PMI) Project Management Body of Knowledge</td>
</tr>
<tr>
<td>SWEBOK v3</td>
<td>Guide to the Software Engineering Body of Knowledge</td>
</tr>
<tr>
<td>TOGAF® v9.2</td>
<td>The Open Group Architecture Framework Standard</td>
</tr>
<tr>
<td>COBIT® 2019 Framework</td>
<td>Control Objectives for Information and Related Technologies Framework</td>
</tr>
<tr>
<td>IEEE 828-2012</td>
<td>Institute of Electrical and Electronics Engineers (IEEE) Standard for Configuration Management in Systems and Software Engineering</td>
</tr>
<tr>
<td>IEEE 1062-2015</td>
<td>IEEE Recommended Practice for Software Acquisition</td>
</tr>
<tr>
<td>IEEE 1012-2016</td>
<td>IEEE Standard for System, Software, and Hardware Verification and Validation</td>
</tr>
<tr>
<td>STANDARD</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>STANDARD</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SAML v2.0</td>
<td>Security Assertion Markup Language v2.0</td>
</tr>
<tr>
<td>SoaML v1.0.1</td>
<td>Service Oriented Architecture Modeling Language</td>
</tr>
<tr>
<td>CMMI-DEV v1.3</td>
<td>Capability Maturity Model Integration for Development</td>
</tr>
<tr>
<td>FIPS 200</td>
<td>FIPS Publication 200, Minimum Security Requirements for Federal Information and Information Systems</td>
</tr>
<tr>
<td>NIST 800-53 Rev 5</td>
<td>National Institute of Standards and Technology (NIST) Security and Privacy Controls for Federal Information Systems and Organizations</td>
</tr>
<tr>
<td>NIST Cybersecurity Framework v1.1</td>
<td>NIST Framework for Improving Critical Infrastructure Cybersecurity</td>
</tr>
<tr>
<td>LSS</td>
<td>Lean Six Sigma</td>
</tr>
</tbody>
</table>
# Appendix C: Interviews, Meetings, and Documents

## INTERVIEWS

<table>
<thead>
<tr>
<th>DATE</th>
<th>INTERVIEWEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/18/20</td>
<td>DLIR Training Plan Meeting</td>
</tr>
<tr>
<td>11/18/20</td>
<td>Interview with LIRAB Stakeholder</td>
</tr>
</tbody>
</table>

## MEETINGS

<table>
<thead>
<tr>
<th>DATE</th>
<th>MEETING DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/27/20</td>
<td>IV&amp;V DCD Update Meeting</td>
</tr>
<tr>
<td>10/27/20</td>
<td>Weekly PM Status Meeting</td>
</tr>
<tr>
<td>10/28/20</td>
<td>IV&amp;V Prior Findings Working Session</td>
</tr>
<tr>
<td>10/29/20</td>
<td>Phase 1 Electronic Submission Office Hours</td>
</tr>
<tr>
<td>10/29/20</td>
<td>Phase 2 Requirements Gathering Session</td>
</tr>
<tr>
<td>10/29/20</td>
<td>Thursday Phase 1 Case Management Scrum Meeting</td>
</tr>
<tr>
<td>10/29/20</td>
<td>Security Working Session</td>
</tr>
<tr>
<td>10/30/20</td>
<td>Weekly DCD Risk Meeting</td>
</tr>
<tr>
<td>10/30/20</td>
<td>Phase 2 Requirements Gathering Session</td>
</tr>
<tr>
<td>11/05/20</td>
<td>Phase 1 Electronic Submission Office Hours</td>
</tr>
<tr>
<td>11/05/20</td>
<td>IV&amp;V Update and Planning Meeting</td>
</tr>
<tr>
<td>11/05/20</td>
<td>Thursday Phase 1 Case Management Scrum Meeting</td>
</tr>
<tr>
<td>11/05/20</td>
<td>Phase 2 Requirements Gathering Session</td>
</tr>
<tr>
<td>11/05/20</td>
<td>Security Working Session</td>
</tr>
</tbody>
</table>
## MEETINGS (CONTINUED)

<table>
<thead>
<tr>
<th>DATE</th>
<th>MEETING DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/06/20</td>
<td>Weekly DCD Risk Meeting</td>
</tr>
<tr>
<td>11/06/20</td>
<td>Phase 1 Case Management Sprint 4.1 and 4.2 Review</td>
</tr>
<tr>
<td>11/09/20</td>
<td>IV&amp;V DLIR Update Meeting</td>
</tr>
<tr>
<td>11/10/20</td>
<td>IV&amp;V DCD Update Meeting</td>
</tr>
<tr>
<td>11/10/20</td>
<td>Weekly PM Status Meeting</td>
</tr>
<tr>
<td>11/12/20</td>
<td>Phase 1 Electronic Submission Office Hours</td>
</tr>
<tr>
<td>11/12/20</td>
<td>Thursday Phase 1 Case Management Scrum Meeting</td>
</tr>
<tr>
<td>11/12/20</td>
<td>Security Working Session</td>
</tr>
<tr>
<td>11/13/20</td>
<td>Weekly DCD Risk Meeting</td>
</tr>
<tr>
<td>11/13/20</td>
<td>Monthly eCMS Steering Committee Meeting</td>
</tr>
<tr>
<td>11/13/20</td>
<td>Phase 1 Case Management Sprint 4.2 Retrospective Meeting</td>
</tr>
<tr>
<td>11/17/20</td>
<td>IV&amp;V DCD Update Meeting</td>
</tr>
<tr>
<td>11/18/20</td>
<td>Phase 1 Case Management Sprint 4.3 Planning Session</td>
</tr>
<tr>
<td>11/19/20</td>
<td>Phase 1 Electronic Submission Office Hours</td>
</tr>
<tr>
<td>11/19/20</td>
<td>Thursday Phase 1 Case Management Scrum Meeting</td>
</tr>
<tr>
<td>11/19/20</td>
<td>Security Working Session</td>
</tr>
<tr>
<td>11/20/20</td>
<td>Weekly DCD Risk Meeting</td>
</tr>
<tr>
<td>11/20/20</td>
<td>Test Plan Walkthrough Meeting</td>
</tr>
<tr>
<td>11/20/20</td>
<td>Phase 1 Content Management System Run Through</td>
</tr>
<tr>
<td>11/24/20</td>
<td>IV&amp;V DCD Update Meeting</td>
</tr>
</tbody>
</table>
### MEETINGS (CONTINUED)

<table>
<thead>
<tr>
<th>DATE</th>
<th>MEETING DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/24/20</td>
<td>Weekly PM Status Meeting</td>
</tr>
</tbody>
</table>

### DOCUMENTS

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DOCUMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request for Proposal</td>
<td>State of Hawaii DLIR DCD RFP No. RFP-17-002-DCD (Release Date 04/12/18)</td>
</tr>
<tr>
<td>DataHouse Proposal</td>
<td>DataHouse eCMS Best and Final Offer (BAFO) Proposal (Dated 06/20/18)</td>
</tr>
<tr>
<td>Request for Proposal</td>
<td>State of Hawaii DLIR DCD IV&amp;V RFP No. RFP-18-001-DCD (Release Date 12/28/18)</td>
</tr>
<tr>
<td>Contract</td>
<td>Contract between State of Hawaii and DataHouse Consulting Inc. (Effective 08/27/18)</td>
</tr>
<tr>
<td>Project Management</td>
<td>DataHouse Project Management Plan 1.4 (Updated 09/25/20)</td>
</tr>
<tr>
<td>Project Management</td>
<td>DataHouse Project Status Report (Status Date 11/08/20 for reporting period 09/01 – 09/15/20, finalized 11/13/20)</td>
</tr>
<tr>
<td>Project Management</td>
<td>DataHouse Project Status Report (Status Date 11/08/20 for reporting period 09/16 – 09/30/20, finalized 11/13/20)</td>
</tr>
<tr>
<td>Project Management</td>
<td>Weekly Status Meeting Agenda Minutes (10/17/20)</td>
</tr>
<tr>
<td>Project Management</td>
<td>Weekly Status Meeting Agenda Minutes (10/27/20)</td>
</tr>
<tr>
<td>Project Management</td>
<td>Weekly Status Meeting Agenda Minutes (11/04/20)</td>
</tr>
<tr>
<td>Project Management</td>
<td>Weekly Status Meeting Agenda Minutes (11/10/20)</td>
</tr>
<tr>
<td>Project Management</td>
<td>Change Log (Updated 11/20/20)</td>
</tr>
<tr>
<td>Project Management</td>
<td>Change Request (CR0002) AWS (Revised 11/10/20)</td>
</tr>
<tr>
<td>Schedule</td>
<td>eCMS Microsoft Project Plan as of 11/15/20 (MPP file)</td>
</tr>
<tr>
<td>Costs</td>
<td>DCD eCMS Modernization Project – Services (Updated 11/23/20)</td>
</tr>
<tr>
<td>Risk and Issues</td>
<td>RAID (Risk Action Issue Decision) Log (Updated 11/20/20 by DataHouse Project Manager)</td>
</tr>
<tr>
<td>TYPE</td>
<td>DOCUMENT</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Risk and Issues</td>
<td>RAID Log (Updated 11/23/20 by DCD Risk Manager)</td>
</tr>
<tr>
<td>Development</td>
<td>DataHouse Development Team Status Meeting Minutes for 10/28/20</td>
</tr>
<tr>
<td>Development</td>
<td>DataHouse Development Team Status Meeting Minutes for 11/04/20</td>
</tr>
<tr>
<td>Development</td>
<td>DataHouse Development Team Status Meeting Minutes for 11/18/20</td>
</tr>
<tr>
<td>Requirements</td>
<td>Phase 2 Case Management Requirements Gathering Meeting Notes (5 files)</td>
</tr>
<tr>
<td>Requirements</td>
<td>Phase 2 Case Management Process Flows (3 files)</td>
</tr>
<tr>
<td>Requirements</td>
<td>Phase 2 Case Management Requirements Gathering Spreadsheet (as of 11/23/20)</td>
</tr>
<tr>
<td>Requirements</td>
<td>Case Management Requirements Version 1.5 (Updated 11/15/20)</td>
</tr>
<tr>
<td>Requirements</td>
<td>Requirements Traceability Matrix (Revision Date 11/13/20)</td>
</tr>
<tr>
<td>Development</td>
<td>Phase 1 Case Management Scrum Meeting Notes (4 files)</td>
</tr>
<tr>
<td>Development</td>
<td>Phase 1 Epic 4 Sprint 4.2 Documentation (Retrospective notes)</td>
</tr>
<tr>
<td>Development</td>
<td>Phase 1 Epic 4 Sprint 4.3 Documentation (Prior sprint review and planning session notes) (2 files)</td>
</tr>
<tr>
<td>Development</td>
<td>DataHouse Email re: Problem with Marking Sets for Training (10/28/20)</td>
</tr>
<tr>
<td>Integrations</td>
<td>Phase 1 Case Management Electronic Submission Screencast Video</td>
</tr>
<tr>
<td>Design</td>
<td>Phase 1 Case Management Design Version 1.5 (Updated 11/22/20)</td>
</tr>
<tr>
<td>Security</td>
<td>DLIR Preliminary Security Risk Assessment (11/02/20)</td>
</tr>
<tr>
<td>Security</td>
<td>Security Responsible, Accountable, Consulted, Informed (RACI) Chart Draft (11/13/20)</td>
</tr>
<tr>
<td>Testing</td>
<td>DataHouse Test Plan Version 0.1 (Updated 11/13/20, pending DLIR approval)</td>
</tr>
<tr>
<td>Testing</td>
<td>DLIR Test Plan Working Draft Version 1.0 (Updated 11/23/20)</td>
</tr>
<tr>
<td>Testing</td>
<td>Phase 1 Case Management User Feedback (11/05/20)</td>
</tr>
</tbody>
</table>
### DOCUMENTS (CONTINUED)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DOCUMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance</td>
<td>eCMS ESC Meeting Agenda (11/13/20)</td>
</tr>
<tr>
<td>Governance</td>
<td>eCMS ESC Meeting Minutes (10/09/20)</td>
</tr>
<tr>
<td>Governance</td>
<td>eCMS ESC Meeting DataHouse Project Dashboard (11/13/20)</td>
</tr>
<tr>
<td>Deployment</td>
<td>Phase 1 Content Management Deployment Checklist Draft</td>
</tr>
</tbody>
</table>
Appendix D: Prior Findings Log
## Appendix D: Prior Findings Log

<table>
<thead>
<tr>
<th>ASSESSMENT CATEGORY</th>
<th>SUB-CATEGORY</th>
<th>FINDING</th>
<th>RECOMMENDATION</th>
<th>RECOMMENDATION IMPACT</th>
<th>CLOSURE STATUS</th>
<th>CLOSURE REASON</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Software, Hardware and Integrations</td>
<td></td>
<td>2020.09.IT01</td>
<td>Establish complete and clear go/no-go criteria.</td>
<td>• Establish go/no-go criteria in advance of the go-live decision to allow for sufficient time for tasks to be completed and criteria satisfied. • Minimize all project team stakeholders' time spent on activities that may be impacted by multiple go/no-go criteria.</td>
<td>Open</td>
<td>10/23/20: DLIR drafted a preliminary testing and cutover checklist that include some go/no-go criteria. DataHouse also provided a Content Management deployment checklist that reflected some of the criteria already in the project schedule. DLIR will continue to develop a deployment checklist and criteria for evaluations and address the impact of recent technical issues on go/no-go criteria.</td>
</tr>
<tr>
<td>System Software, Hardware and Integrations</td>
<td></td>
<td>2020.09.IT01.R1</td>
<td>• Establish go/no-go criteria.</td>
<td>• Ensure all parties agree upon go/no-go criteria including impacted stakeholders. • Consider go/no-go criteria as all requirements meet acceptance criteria and are approved by DLIR, and user training is completed, and all project systems and deliverables perform as expected in UAT testing.</td>
<td>Open</td>
<td>10/23/20: DLIR drafted a preliminary testing and cutover checklist that include some go/no-go criteria. DataHouse also provided a Content Management deployment checklist that reflected some of the criteria already in the project schedule. DLIR will continue to develop a deployment checklist and criteria for evaluations and address the impact of recent technical issues on go/no-go criteria.</td>
</tr>
<tr>
<td>Project Organization and Management</td>
<td></td>
<td>2020.07.PM01</td>
<td>Perform a project assessment.</td>
<td>• Consider conducting performance assessments for the project team, individual team members, and governance. • Document lessons learned and necessary actions or follow-up to prevent reoccurrence of similar issues.</td>
<td>Open</td>
<td>08/21/20: DataHouse is currently conducting requirements gathering sessions and made improvements to the requirements management processes. Incremental progress was made for many findings but a majority are still open. Projects were held by the project team to monitor and mitigate potential project risks and opportunities.</td>
</tr>
<tr>
<td>Project Organization and Management</td>
<td></td>
<td>2020.07.PM01.R1</td>
<td>Formulate a plan for addressing identified deficiencies.</td>
<td>• Prioritize based on relevance to upcoming activities; consider focusing on requirements management and BPR processes to optimize effectiveness and efficiencies of upcoming requirements gathering sessions. • Develop high-level timeline and tasks for addressing deficiencies and begin tracking progress.</td>
<td>Open</td>
<td>08/21/20: DataHouse is currently conducting requirements gathering sessions and made improvements to the requirements management processes. Incremental progress was made for many findings but a majority are still open. Projects were held by the project team to monitor and mitigate potential project risks and opportunities.</td>
</tr>
<tr>
<td>Project Organization and Management</td>
<td></td>
<td>2020.07.PM01.R2</td>
<td></td>
<td></td>
<td>Open</td>
<td>08/21/20: DataHouse is currently conducting requirements gathering sessions and made improvements to the requirements management processes. Incremental progress was made for many findings but a majority are still open. Projects were held by the project team to monitor and mitigate potential project risks and opportunities.</td>
</tr>
</tbody>
</table>

**Notes:**
- DLIR = Developing Learning Interoperability and Technology
- IV&V = Independent Verification and Validation
- BPR = Business Process Reengineering
FINDING

2020.03.PM01.R1 Explore possible ways to keep the project moving forward with available resources.
• Evaluate DLIR SMEs availability and bandwidth to work on the project.
• Consider reshuffling of user stories in current and upcoming sprints and how to best utilize available DLIR SMEs.

2020.03.PM01.R2 Formulate a plan for how to respond to COVID-19 impacts to the project.
• DataHouse and DLIR, with input from the ESC, must come together to decide on how to best proceed.
• Carefully assess the situation and individually log all of the specific impacts to the project in the risk register, including place and indirect impacts.
• Implement an alternative scenario of action and contingency plans for each specific impact identified.
• Consider adjusting the frequency of communications and reviews of response plans to support the pace of evolving circumstances.

STATUS

Open

RECOMMENDATION

Reopen as to track for progress and keep finding open with available resources.

Environmental Recommendation

Assess and mitigate project risks in place for COVID-19 to ensure continued project viability.

Project Organization and Management

2020.03.PM01 Issue High Moderate The COVID-19 pandemic is impacting project execution although the extent of the impact to project costs and the project schedule is currently indeterminable.

The COVID-19 pandemic has created uncertainty with respect to the timely completion of the project and its cost. Understandably, DLIR has devoted significant project resources to the UI Division to respond to the burgeoning number of unemployment claims. This finding focuses on the impacts of COVID-19 to the eCMS Project.

The following is a summary of the related events and facts:

- All eCMS Project meetings were cancelled beginning March 17, 2020 following directives for non-essential state workers to stay home.
- Subsequent state-wide stay at home orders were put into effect through April 30, 2020.
- Currently, only a few DLIR project resources, including the DOA Business License and UI CRM Project Manager, are still working in the office or on site.
- DLIR's COVID-19 response was initially predicated on its ability to continue working.
- DLIR ceased all non-essential activities and has temporarily assigned most of its project staff to the UI Division.
- The DLIR SMEs are integral to the Case Management system development process due to the vast knowledge and insight they provide to the development teams.
- Due to the limited availability of SMEs, project work has been partially paused.
- Many of the SMEs have already been temporarily assigned to assist the UI Division's unprepared response and to the extent that they would otherwise continue to work on the eCMS or eUIR5 Project work is unknown.
- While some stages of work will still be able to proceed (e.g., technical documentation, code, etc.), project stakeholders have expressed concern regarding the path forward.
- DLIR's COVID-19 response is partially limited due to the feasibility of continuing to work on a state-wide basis.
- Although a few DataHouse resources were reassigned to assist with higher priority work at DLIR's direction, a significant number of stakeholders across all DLIR's projects are now focused on development.
- However, many stakeholders are still working and planning to continue to work on the eCMS project in the coming months.

The subsequent reduction in already constrained DLIR project resources has almost entirely halted project work on the state side which will impact project costs and schedule and potentially affect project success. bookmark potential impacts to project costs and schedule at this time.

It has been determined that a project-focused perspective, with an understanding that higher DLIR department level priorities may limit the project's ability to resolve and mitigate these risks, is necessary to develop mitigation plans that would help to reduce or limit the impacts.

The following are the following IV&V recommendations are based on a project-focused perspective, with an understanding that higher DLIR department level priorities may limit the project's ability to resolve and mitigate these risks. Although this finding is reported under the Project Organization and Management IV&V Assessment Category, this finding also impacts the following categories: the Governmental Structures, the Contract Management and Risk Management, Compliance, and Risk Management. Data Conversion, Qualification and Validation and Testing, and Security Categories. In addition, the specific recommendations are made based on the eCMS Project's immediate needs.

2019.07.PM06, 2019.07.PM09, 2019.07.PM12, 2019.07.PM13, and 2019.07.PM14 will also help to address the issue.
DataHouse drafted the Test Plan Version 0.0, pending DLIR review and approval. The test plan does not include or clearly explain the following:

- The scope of the test plan is incomplete (e.g., performance, load, security, 2020.02.IT01 Risk High). The DataHouse Test Plan is incomplete and does not adequately inform DLIR of the testing approach and scope which may impact the execution of testing activities.

- A lack of clarity of DataHouse’s testing approach may not allow DLIR to appropriately develop their own test plan or ensure testing activities are adequately performed. Additionally, a lack of mutual understanding and inadequate test management processes could impact the execution of testing activities.

- IV&V will continue to track the clarification of the timing of data extraction and feedback during data validation UAT and the Case Management taxonomy for the Epic 3 build. DLIR is still exploring options for paper file conversion.

- The IV&V recommendations made at finding 2019.07.PM02.R3 and finding 2019.07.PM13.R2 regarding DataHouse including DLIR in project activities and adding detailed tasks to the project schedule will also address this finding. Below are additional recommendations to further improve data conversion plans and activities.

**Recommendation 1:**

- Develop adequate test management processes and procedures to ensure a process for authorization of test data.

**Recommendation 2:**

- Consider a process for authorization of live data.
Risk Moderate

According to the Project Management Plan (version 1.3), the DataHouse test plan was scheduled for completion on September 3, 2019. Due to the need to focus resources on the AWS setup and related activities, the test plan was revised to target completion in November 2019. The DataHouse test plan was submitted for approval on November 1, 2019, and the revised test plan was approved on November 20, 2019. The DataHouse test activities are scheduled to begin in November 2019. DLIR needs to understand DataHouse’s test strategy and test needs. DLIR also needs to establish their own test strategy as well as identify, train, and schedule DLIR test resources.

DLIR currently does not have formal security policies to determine security requirements for the eCMS Project and does not have security policies in place to adequately protect the data stored in the Content Management hosting solution. Security requirements for the cloud environment must be determined and controlled in the Content Management hosting solution to prevent unauthorized access and leaks, which may impact the security and privacy of the data and may lead to project delays.

OPEN

2019.10.IT01.R1

Finalize the test plan.

• Identify applicable test standards and requirements.

2019.10.IT02.R1

Formalize security policies.

• Work with ETS to align DLIR policies with State policies and/or a standard security framework.
• Consider prioritizing security policies that are most relevant for use of cloud services and data protection (e.g., security logging and monitoring, MFA, secure access, encryption of data at rest and in transit).

2019.09.PM01.R1

Document changes in Change Requests, with an impact assessment, and the Change Log in accordance with the Project Management Plan.

• Consider setting thresholds or criteria for changes that go through different approval processes.
• Define the different approval processes and the communicator for each of the changes.

2019.09.PM01.R2

Refine the change management process for greater clarity and effectiveness.

• Estimate the time and resource impacts of the changes.
• Track and refine the change management process.
• Act on the feedback to improve the change management process.

FINDING STATUS FINDING STATUS UPDATE CLOSED DATE CLOSURE REASON

FINDING ID FINDING ID TYPE CATEGORY FINDING ID TYPE CATEGORY FINDING ID TYPE CATEGORY

OPEN

2019.10.IT01 High Lack of approved test plans may impact the execution and quality of test activities and documentation.

2019.10.IT02 High The documented change management process includes the change management processes that include Change Requests, impact assessments, and a Change Log. The change in AWS (see Finding 2019.07.PM01, Appendix D) and the review of the Change Management Guide data sets approved by DLIR are not documented in the Change Requests or the Change Log. Additionally, the change management process does not specify a mechanism to ensure that required documents are updated for the changes and the changes are appropriately communicated to impacted stakeholders.

2019.09.PM01 Open Document changes in Change Requests with an impact assessment, and the Change Log in accordance with the Project Management Plan.

2019.09.PM01 Open Refine the change management process for greater clarity and effectiveness.

2019.07.PM01 Open Act on the feedback to improve the change management process.

2019.07.PM01 Open Act on the feedback to improve the change management process.
Cost, Schedule and Resource Management

07/29/20: DataHouse’s revisions to the project schedule for Phase 1 tasks were tentatively approved by DLIR; however, details of resource requirements for Phase 2 work were not provided. State resources need a clear understanding of upcoming project activities and sufficient lead time to adequately prepare for the complete project tasks.

08/21/20: The necessary DLIR SMEs were able to participate in the Phase 2 requirements gathering session. By Phase 1 and Phase 2 activities to begin occurring simultaneously, improved resource management processes are needed to ensure the current project path as well as timely resources and capacity, manage workloads, and make adjustments within DLIR project resource constraints.

09/28/20: The necessary DLIR SMEs were able to participate in both Phase 1 and Phase 2 project activities; however, it is unclear if DLIR SMEs had adequate time to perform the Phase 1 Case Management requirements gathering sessions. With Phase 1 and Phase 2 activities to begin occurring simultaneously, improved resource management processes are needed to adequately coordinate, assess capacity, and make adjustments within DLIR project resource constraints.

10/23/20: DLIR project resources are mostly able to participate in Phase 1 and Phase 2 activities. Limited availability of DLIR project resources impacts their ability to timely coordinate, assess capacity, manage workloads, and make adjustments within DLIR project resource constraints.

11/24/20: Limited availability of DLIR project resources impacts their ability to timely coordinate, assess capacity, manage workloads, and make adjustments within DLIR project resource constraints. This was originally reported in the September 2019 IV&V Monthly Report as a preliminary concern but is upgraded to a risk. Accuity will continue to monitor this preliminary concern.

2019.09.PM02.R2 Develop processes to optimize resource utilization of DLIR project resources.

- Consider working with managers of project resources to reassign team members' other job duties.
- Consider periodically reconfirming and renewing resource commitments to the project.
- Ensure that new hires and team members are properly trained and prepared to perform their roles.
- Explore use of tools for resource calendars and tracking of team members' assignment progress and completion.

2019.09.PM02.R3 Review/develop/establish appropriate processes to manage resource requirements.

- Specify and implement clear performance requirements.
- Establish project schedules and ensure that project schedules are adequately supported by resources and budget.
- Ensure that project schedules are based on realistic performance expectations.
- Ensure adequate resource management for the project.
- Ensure that resource management of the project is informed by performance requirements.
- Ensure that resource management of the project is informed by resource requirements.

2019.09.PM02.R4 Develop procedures to estimate and refine DLIR resource requirements.

- Detail necessary steps and information needed to estimate and refine resources requirements.
- Consult DataHouse for input on estimating activities that require ELIR resources and clarify definitions of resources.
- Ensure that procedures for estimating resources are adequate for major project activities (e.g., data conversion, testing).
- Ensure that procedures for estimating resources are adequate for major project activities (e.g., data conversion, testing).

2019.09.PM02.R5 Confer with DataHouse to develop resources estimates for major project activities.

- Establish a timeline for developing resources estimates for major project activities.
- Establish a timeline for developing resources estimates for major project activities.

2019.09.PM02.R6 Review DataHouse’s resources estimates for major project activities.

- Make sure that DataHouse’s resources estimates for major project activities are based on realistic performance expectations and adequate resource requirements.
- Make sure that DataHouse’s resources estimates for major project activities are based on realistic performance expectations and adequate resource requirements.

2019.09.PM02.R7 Review/develop/establish appropriate processes to manage resource requirements.

- Specify and implement clear performance requirements.
- Establish project schedules and ensure that project schedules are adequately supported by resources and budget.
- Ensure that project schedules are based on realistic performance expectations.
- Ensure adequate resource management for the project.
- Ensure that resource management of the project is informed by performance requirements.
- Ensure that resource management of the project is informed by resource requirements.

2019.09.PM02.R8 Develop processes to optimize resource utilization of DLIR project resources.

- Consider working with managers of project resources to reassign team members' other job duties.
- Consider periodically reconfirming and renewing resource commitments to the project.
- Ensure that new hires and team members are properly trained and prepared to perform their roles.
- Explore use of tools for resource calendars and tracking of team members' assignment progress and completion.

2019.09.PM02.R9 Develop procedures to estimate and refine DLIR resource requirements.

- Detail necessary steps and information needed to estimate and refine resources requirements.
- Consult DataHouse for input on estimating activities that require ELIR resources and clarify definitions of resources.
- Ensure that procedures for estimating resources are adequate for major project activities (e.g., data conversion, testing).
- Ensure that procedures for estimating resources are adequate for major project activities (e.g., data conversion, testing).

2019.09.PM02.R10 Review DataHouse’s resources estimates for major project activities.

- Make sure that DataHouse’s resources estimates for major project activities are based on realistic performance expectations and adequate resource requirements.
- Make sure that DataHouse’s resources estimates for major project activities are based on realistic performance expectations and adequate resource requirements.

2019.09.PM02.R11 Review/develop/establish appropriate processes to manage resource requirements.

- Specify and implement clear performance requirements.
- Establish project schedules and ensure that project schedules are adequately supported by resources and budget.
- Ensure that project schedules are based on realistic performance expectations.
- Ensure adequate resource management for the project.
- Ensure that resource management of the project is informed by performance requirements.
- Ensure that resource management of the project is informed by resource requirements.

2019.09.PM02.R12 Develop processes to optimize resource utilization of DLIR project resources.

- Consider working with managers of project resources to reassign team members' other job duties.
- Consider periodically reconfirming and renewing resource commitments to the project.
- Ensure that new hires and team members are properly trained and prepared to perform their roles.
- Explore use of tools for resource calendars and tracking of team members' assignment progress and completion.

2019.09.PM02.R13 Review DataHouse’s resources estimates for major project activities.

- Make sure that DataHouse’s resources estimates for major project activities are based on realistic performance expectations and adequate resource requirements.
- Make sure that DataHouse’s resources estimates for major project activities are based on realistic performance expectations and adequate resource requirements.

2019.09.PM02.R14 Review/develop/establish appropriate processes to manage resource requirements.

- Specify and implement clear performance requirements.
- Establish project schedules and ensure that project schedules are adequately supported by resources and budget.
- Ensure that project schedules are based on realistic performance expectations.
- Ensure adequate resource management for the project.
- Ensure that resource management of the project is informed by performance requirements.
- Ensure that resource management of the project is informed by resource requirements.

2019.09.PM02.R15 Confer with DataHouse to develop resources estimates for major project activities.

- Establish a timeline for developing resources estimates for major project activities.
- Establish a timeline for developing resources estimates for major project activities.

2019.09.PM02.R16 Review DataHouse’s resources estimates for major project activities.

- Make sure that DataHouse’s resources estimates for major project activities are based on realistic performance expectations and adequate resource requirements.
- Make sure that DataHouse’s resources estimates for major project activities are based on realistic performance expectations and adequate resource requirements.

2019.09.PM02.R17 Review/develop/establish appropriate processes to manage resource requirements.

- Specify and implement clear performance requirements.
- Establish project schedules and ensure that project schedules are adequately supported by resources and budget.
- Ensure that project schedules are based on realistic performance expectations.
- Ensure adequate resource management for the project.
- Ensure that resource management of the project is informed by performance requirements.
- Ensure that resource management of the project is informed by resource requirements.

2019.09.PM02.R18 Develop processes to optimize resource utilization of DLIR project resources.

- Consider working with managers of project resources to reassign team members' other job duties.
- Consider periodically reconfirming and renewing resource commitments to the project.
- Ensure that new hires and team members are properly trained and prepared to perform their roles.
- Explore use of tools for resource calendars and tracking of team members' assignment progress and completion.

2019.09.PM02.R19 Review DataHouse’s resources estimates for major project activities.

- Make sure that DataHouse’s resources estimates for major project activities are based on realistic performance expectations and adequate resource requirements.
- Make sure that DataHouse’s resources estimates for major project activities are based on realistic performance expectations and adequate resource requirements.

2019.09.PM02.R20 Review/develop/establish appropriate processes to manage resource requirements.

- Specify and implement clear performance requirements.
- Establish project schedules and ensure that project schedules are adequately supported by resources and budget.
- Ensure that project schedules are based on realistic performance expectations.
- Ensure adequate resource management for the project.
- Ensure that resource management of the project is informed by performance requirements.
- Ensure that resource management of the project is informed by resource requirements.
### Project Management and Administration

**Project**

Accuity will continue to evaluate the collection and monitoring of success metrics data.

**Phase 1 Content Management and electronic submission pilot group stakeholders.**

**11/24/20:** Weekly meetings with electronic submission pilot group stakeholders continued; however, the planned Phase 1 Content Management daily standup meetings between DLIR and DataHouse were not held as scheduled due to changes in the go-live timeline. DLIR and DataHouse made progress to clarify testing roles and responsibilities.

**09/28/20:** With several key Phase 1 Content Management deliverables scheduled to be delivered over the next two months, DLIR needs to establish acceptance criteria and scope validation and quality control processes as a part of deliverable review and acceptance. See also related finding 2019.07.IT05.

**10/23/20:** DLIR reviewed and approved the recent Phase 1 Content Management Training Guide deliverables. A deliverable walk through meeting was not held and IV&V does not have adequate Project Management and Evaluation Services to conduct an adequate, formal deliverable. DLIR requested that DataHouse hold deliverable walkthrough meetings for all new and revised deliverables.

### Data House and Project Management Organization

Accuity will continue to evaluate the clarity of roles and responsibilities and observe the effectiveness of project organization.

**The eCMS Project does not have a project charter that would have helped to formalize the project goals, target benefits, and success metrics at the start of the project.** Based on informal discussions with the project manager, the project charter was developed after the start of the project.

**07/29/20 and 08/21/20:** Progress on the success metrics stalled due to shifting priorities and changes in DLIR project resources. DLIR, with the assistance of ETS, timely reviewed and approved AWS vulnerability scan reports and results. Other critical DataHouse deliverables are still pending review.

**09/28/20:** DLIR updated success metric goals and plans for collecting baseline success metric data. DLIR presented the updated metrics at the monthly project managers meeting but did not share and fully discuss all of ACHIE Project team members of the success metrics to help align project objectives and expectations of requirements gathering and success metric data.

### Recommendations

**RECOMMENDATION**

**RECOMMENDATION TYPE**

**RECOMMENDATION SEVERITY**

**RECOMMENDATION ANALYSIS**

**RECOMMENDATION ID**

**RECOMMENDATION Wording Status Updates**

**RECOMMENDATION CLOSURE**

**RECOMMENDATION REASONS**

**RECOMMENDATION SUPPLEMENTAL RECOMMENDATION**

---

### IV&V Month Status

**2020.07.29**

The DLIR Project Manager returned to the project on a part-time basis and is resuming weekly project status meetings.

**2020.08.21**

The DLIR Project Manager returned to full-time status on the Management and internal DLIR weekly risk and test meetings resumed. Periodic Content Management check-in meetings are scheduled.

---

### IV&V Findings

**FINDING**

**FINDING ID**

**FINDING DESCRIPTION**

**FINDING CATEGORY**

**FINDING SEVERITY**

**FINDING ANALYSIS**

**FINDING RECOMMENDATION**

**FINDING ID**

**FINDING SUPPLEMENTAL RECOMMENDATION**

---

### IV&V ASSET

**FINDING ASSET**

**FINDING ID**

**FINDING DESCRIPTION**

**FINDING CATEGORY**

**FINDING SEVERITY**

**FINDING ANALYSIS**

**FINDING RECOMMENDATION**

---

### IV&V ASSET

**FINDING ASSET**

**FINDING ID**

**FINDING DESCRIPTION**

**FINDING CATEGORY**

**FINDING SEVERITY**

**FINDING ANALYSIS**

**FINDING RECOMMENDATION**

---

### IV&V ASSET

**FINDING ASSET**

**FINDING ID**

**FINDING DESCRIPTION**

**FINDING CATEGORY**

**FINDING SEVERITY**

**FINDING ANALYSIS**

**FINDING RECOMMENDATION**

---

### IV&V ASSET

**FINDING ASSET**

**FINDING ID**

**FINDING DESCRIPTION**

**FINDING CATEGORY**

**FINDING SEVERITY**

**FINDING ANALYSIS**

**FINDING RECOMMENDATION**

---

### IV&V ASSET

**FINDING ASSET**

**FINDING ID**

**FINDING DESCRIPTION**

**FINDING CATEGORY**

**FINDING SEVERITY**

**FINDING ANALYSIS**

**FINDING RECOMMENDATION**

---

### IV&V ASSET

**FINDING ASSET**

**FINDING ID**

**FINDING DESCRIPTION**

**FINDING CATEGORY**

**FINDING SEVERITY**

**FINDING ANALYSIS**

**FINDING RECOMMENDATION**

---

### IV&V ASSET

**FINDING ASSET**

**FINDING ID**

**FINDING DESCRIPTION**

**FINDING CATEGORY**

**FINDING SEVERITY**

**FINDING ANALYSIS**

**FINDING RECOMMENDATION**

---

### IV&V ASSET

**FINDING ASSET**

**FINDING ID**

**FINDING DESCRIPTION**

**FINDING CATEGORY**

**FINDING SEVERITY**

**FINDING ANALYSIS**

**FINDING RECOMMENDATION**

---

### IV&V ASSET

**FINDING ASSET**

**FINDING ID**

**FINDING DESCRIPTION**

**FINDING CATEGORY**

**FINDING SEVERITY**

**FINDING ANALYSIS**

**FINDING RECOMMENDATION**

---

### IV&V ASSET

**FINDING ASSET**

**FINDING ID**

**FINDING DESCRIPTION**

**FINDING CATEGORY**

**FINDING SEVERITY**

**FINDING ANALYSIS**

**FINDING RECOMMENDATION**

---

### IV&V ASSET
Refer to the June 2020 IV&V Monthly Report for status updates prior to July 2020.

07/29/20: DLIR made some updates to the project website.

08/21/20: DataHouse and DLIR held an initial meeting with a limited group of external stakeholders and plans to hold periodic update meetings going forward.

09/28/20: DLIR and DataHouse scheduled a follow-up meeting and plans to hold help desk hours for the electronic submission process external stakeholders.

10/23/20: Improvements in stakeholder communications were made by implementing standing meetings with Phase 1 Content Management and electronic submission pilot group stakeholders.

11/24/20: The planned Phase 1 Content Management daily standup meetings between DLIR and DataHouse were postponed to begin in December 2020 due to changes in the go-live timeline. Accuity will continue to evaluate the effectiveness of these project management changes.

Communication

10/23/20: Accuity decreased the severity rating from Level 1 (High) to Level 2 (Moderate). Regular meetings for Phase 1 Content Management and electronic submission were scheduled and other standing project meetings are continuing to occur.

09/28/20, 10/23/20, and 11/24/20: Some OCM is occurring again as an

11/24/20: The planned Phase 1 Content Management daily standup meetings between DLIR and DataHouse were postponed to begin in December 2020 due to changes in the go-live timeline. Accuity will continue to evaluate the effectiveness of these project management changes.

11/24/20: The planned Phase 1 Content Management daily standup meetings between DLIR and DataHouse were postponed to begin in December 2020 due to changes in the go-live timeline. Accuity will continue to evaluate the effectiveness of these project management changes.

Organizational Change Management

11/24/20: The planned Phase 1 Content Management daily standup meetings between DLIR and DataHouse were postponed to begin in December 2020 due to changes in the go-live timeline. Accuity will continue to evaluate the effectiveness of these project management changes.
Of the June 2020 IV&V Monthly Report for status updates prior to July 2020. 07/29/20 and 08/21/20: No updates to report. 09/28/20: Accuity decreased the severity rating from Level 1 (High/Critical) to Level 2 (Moderate). DLIR resumed weekly risk meetings, prioritized the top three project risks, and began developing...risk management processes. Based on information (SIP recommendations made during the assessment phase), DLIR and DataHouse communicated a plan to start identifying and tagging risks jointly and...especially the need to document and communicate the findings and lessons learned among the project team, to facilitate prioritization of risks, ensure issues are addressed, and to prevent similar problems from occurring in the future. 10/23/20: DLIR and DataHouse continued regular discussions of risks as well as tracking and managing AWS costs and issues. 10/23/20: The Phase 2 requirements deliverable scheduled for October 2020 is delayed. DataHouse is now targeting November 2020 for completion. 11/24/20: DataHouse is now targeting to complete the Phase 2 requirements deliverable in December 2020. Accuity will continue to monitor project costs including the proposed payment schedule, new AWS costs (from finding 2019.07.IT01), and cost management and the executive steering committee. 12/16/20: DLIR and DataHouse continued to monitor project costs. Improvements are still needed to better track and monitor all project costs. DataHouse's contract states that payments are contingent upon receipt of services, deliverables, and reports in accordance to the milestones that meet the expectations of the RFP. DataHouse is now targeting November 2020 for completion. 07/29/20 and 08/21/20: No updates to report. 09/28/20: DLIR and DataHouse are actively monitoring and managing AWS environment costs. 10/23/20 and 11/23/20: DLIR and DataHouse continue to actively manage other project costs. Improvements are still needed to better track and monitor all project costs. DataHouse's current payment schedule was not revised for changes in completion of milestones and deliverables resulting in the prepayment of contract funds. 12/16/20: DLIR and DataHouse are actively monitoring and managing AWS environment costs. Improvements are still needed to better track and monitor all project costs. DataHouse's current payment schedule was not revised for changes in completion of milestones and deliverables resulting in the prepayment of contract funds. 07/29/20 and 08/21/20: No updates to report. 09/28/20: Accuity decreased the severity rating from Level 1 (High/Critical) to Level 2 (Moderate). DLIR resumed weekly risk meetings, prioritized the top three project risks, and began developing...risk management processes. Based on information (SIP recommendations made during the assessment phase), DLIR and DataHouse communicated a plan to start identifying and tagging risks jointly and...especially the need to document and communicate the findings and lessons learned among the project team, to facilitate prioritization of risks, ensure issues are addressed, and to prevent similar problems from occurring in the future. 10/23/20: DLIR and DataHouse continued regular discussions of risks as well as tracking and managing AWS costs and issues. 10/23/20: The Phase 2 requirements deliverable scheduled for October 2020 is delayed. DataHouse is now targeting November 2020 for completion. 11/24/20: DataHouse is now targeting to complete the Phase 2 requirements deliverable in December 2020. Accuity will continue to monitor project costs including the proposed payment schedule, new AWS costs (from finding 2019.07.IT01), and cost management and the executive steering committee. 12/16/20: DLIR and DataHouse continued to monitor project costs. Improvements are still needed to better track and monitor all project costs. DataHouse's contract states that payments are contingent upon receipt of services, deliverables, and reports in accordance to the milestones that meet the expectations of the RFP. DataHouse is now targeting November 2020 for completion. 07/29/20 and 08/21/20: No updates to report. 09/28/20: DLIR and DataHouse are actively monitoring and managing AWS environment costs. 10/23/20 and 11/23/20: DLIR and DataHouse continue to actively manage other project costs. Improvements are still needed to better track and monitor all project costs. DataHouse's current payment schedule was not revised for changes in completion of milestones and deliverables resulting in the prepayment of contract funds. 12/16/20: DLIR and DataHouse are actively monitoring and managing AWS environment costs. Improvements are still needed to better track and monitor all project costs. DataHouse's current payment schedule was not revised for changes in completion of milestones and deliverables resulting in the prepayment of contract funds. 07/29/20 and 08/21/20: No updates to report. 09/28/20: Accuity decreased the severity rating from Level 1 (High/Critical) to Level 2 (Moderate). DLIR resumed weekly risk meetings, prioritized the top three project risks, and began developing...risk management processes. Based on information (SIP recommendations made during the assessment phase), DLIR and DataHouse communicated a plan to start identifying and tagging risks jointly and...especially the need to document and communicate the findings and lessons learned among the project team, to facilitate prioritization of risks, ensure issues are addressed, and to prevent similar problems from occurring in the future. 10/23/20: DLIR and DataHouse continued regular discussions of risks as well as tracking and managing AWS costs and issues. 10/23/20: The Phase 2 requirements deliverable scheduled for October 2020 is delayed. DataHouse is now targeting November 2020 for completion. 11/24/20: DataHouse is now targeting to complete the Phase 2 requirements deliverable in December 2020. Accuity will continue to monitor project costs including the proposed payment schedule, new AWS costs (from finding 2019.07.IT01), and cost management and the executive steering committee. 12/16/20: DLIR and DataHouse continued to monitor project costs. Improvements are still needed to better track and monitor all project costs. DataHouse's contract states that payments are contingent upon receipt of services, deliverables, and reports in accordance to the milestones that meet the expectations of the RFP. DataHouse is now targeting November 2020 for completion. 07/29/20 and 08/21/20: No updates to report. 09/28/20: Accuity decreased the severity rating from Level 1 (High/Critical) to Level 2 (Moderate). DLIR resumed weekly risk meetings, prioritized the top three project risks, and began developing...risk management processes. Based on information (SIP recommendations made during the assessment phase), DLIR and DataHouse communicated a plan to start identifying and tagging risks jointly and...especially the need to document and communicate the findings and lessons learned among the project team, to facilitate prioritization of risks, ensure issues are addressed, and to prevent similar problems from occurring in the future. 10/23/20: DLIR and DataHouse continued regular discussions of risks as well as tracking and managing AWS costs and issues. 10/23/20: The Phase 2 requirements deliverable scheduled for October 2020 is delayed. DataHouse is now targeting November 2020 for completion. 11/24/20: DataHouse is now targeting to complete the Phase 2 requirements deliverable in December 2020. Accuity will continue to monitor project costs including the proposed payment schedule, new AWS costs (from finding 2019.07.IT01), and cost management and the executive steering committee. 12/16/20: DLIR and DataHouse continued to monitor project costs. Improvements are still needed to better track and monitor all project costs. DataHouse's contract states that payments are contingent upon receipt of services, deliverables, and reports in accordance to the milestones that meet the expectations of the RFP. DataHouse is now targeting November 2020 for completion.
The Phase 1 go-live dates were delayed a few times since the start of the project with the Content Management go-live being the most recent delay. Reasons for the delays are not well documented or formally approved in accordance with the Project Management Plan. Although there are reasonable explanations for some of the delays, scheduled milestones were not updated in the project schedule due to lack of formal approval. The new dates were tentatively approved by DLIR; however, details of resource requirements for Phase 2 work were not provided.

High

2019.07.PM13.10 Resource needs for Phase 2 activities were not defined in the project schedule.

Inadequate schedule management

FINDING STATUS FINDING STATUS UPDATE CLOSED DATE CLOSURE REASON
10/23/20:  No updates to report.
2019.07.PM13.20 Resource needs for Phase 2 activities were not defined in the project schedule.

Inadequate schedule management

2019.07.PM13.01 Assess the adequacy of DLIR project resources.

ASSESSMENT

ORIGINAL SEVERITY

FINDING SEVERITY

RESOLVED

High

2019.07.PM13.R1 Document and approve revisions to the project schedule deliverables, and project milestone dates in accordance with the Project Management Plan.

2019.07.PM13.R2 Refine the project schedule with the SMEs and the executive steering committee.


2019.07.PM13.R4 Document and approve revisions to milestone and go-live dates in accordance with the Project Management Plan.

Documentation should provide a clear understanding on the interface solution including:

• How Salesforce can be connected to the interface components
• The steps required for implementation
• What are the costs associated for development and long-term maintenance

An unclear interface solution may impact the design process and require additional effort to correct.

2019.07.IT02.R1 Document the interface solution and manage the executive steering committee.

2019.07.IT02.R2 Update the project schedule to define resources assigned to each of the interface-related activities.

2019.07.IT02.R3 Verify the proposed interface solution will work.

Accuity will continue to monitor the project schedule and schedule variance analyses for management and the executive steering committee.

Inadequate assigned project resources may lead to project delays, reduced project performance, or turnover of project resources.

2019.07.PM13.02 Resource needs for Phase 2 activities were not defined in the project schedule.

Inadequate assigned project resources

2019.07.PM13.03 Assess the adequacy of DLIR project resources.

ASSESSMENT

ORIGINAL SEVERITY

FINDING SEVERITY

RESOLVED

High

2019.07.PM13.R1 Document and approve revisions to the project schedule deliverables, and project milestone dates in accordance with the Project Management Plan.

2019.07.PM13.R2 Refine the project schedule with the SMEs and the executive steering committee.


2019.07.PM13.R4 Document and approve revisions to milestone and go-live dates in accordance with the Project Management Plan.

Documentation should provide a clear understanding on the interface solution including:

• How Salesforce can be connected to the interface components
• The steps required for implementation
• What are the costs associated for development and long-term maintenance

An unclear interface solution may impact the design process and require additional effort to correct.

2019.07.IT02.R1 Document the interface solution and manage the executive steering committee.

2019.07.IT02.R2 Update the project schedule to define resources assigned to each of the interface-related activities.

2019.07.IT02.R3 Verify the proposed interface solution will work.

Accuity will continue to monitor the project schedule and schedule variance analyses for management and the executive steering committee.

Inadequate assigned project resources may lead to project delays, reduced project performance, or turnover of project resources.

2019.07.PM13.02 Resource needs for Phase 2 activities were not defined in the project schedule.

Inadequate assigned project resources

2019.07.PM13.03 Assess the adequacy of DLIR project resources.

ASSESSMENT

ORIGINAL SEVERITY

FINDING SEVERITY

RESOLVED

High

2019.07.PM13.R1 Document and approve revisions to the project schedule deliverables, and project milestone dates in accordance with the Project Management Plan.

2019.07.PM13.R2 Refine the project schedule with the SMEs and the executive steering committee.


2019.07.PM13.R4 Document and approve revisions to milestone and go-live dates in accordance with the Project Management Plan.

Documentation should provide a clear understanding on the interface solution including:

• How Salesforce can be connected to the interface components
• The steps required for implementation
• What are the costs associated for development and long-term maintenance

An unclear interface solution may impact the design process and require additional effort to correct.

2019.07.IT02.R1 Document the interface solution and manage the executive steering committee.

2019.07.IT02.R2 Update the project schedule to define resources assigned to each of the interface-related activities.

2019.07.IT02.R3 Verify the proposed interface solution will work.

Accuity will continue to monitor the project schedule and schedule variance analyses for management and the executive steering committee.

Inadequate assigned project resources may lead to project delays, reduced project performance, or turnover of project resources.
Not having an approved quality management plan and assigned quality assurance resources may impact the quality of project deliverables.

Open

The Quality Management Plan (version 0.1) was drafted by DataHouse on June 23, 2019 but was not yet approved by DLIR. The draft plan did not include quality metrics, quality standards, or quality objectives of the documented or reported. Additionally, the Quality Assurance Lead identified in DataHouse's BAFO is not assigned to the project team at this time.

Open

As it is almost eleven months into the eCMS Project and several deliverables were already approved and many are pending approval, it is important for a quality management plan to be formalized and resources assigned to perform quality management activities.

Open

Refer to the June 2020 IV&V Monthly Report for status updates prior to July 2020.

Open

Findings

<table>
<thead>
<tr>
<th>FINDING ID</th>
<th>CURRENT SEVERITY</th>
<th>FINDING ANALYSIS</th>
<th>RECOMMENDATION ID</th>
<th>RECOMMENDATION</th>
<th>SUPPLEMENTAL RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.07.IT05.R1</td>
<td>Low</td>
<td>Finalize the quality management plan and protocols for evaluating and ensuring quality throughout the project.</td>
<td>2019.07.IT05.R2</td>
<td>Perform quality management activities on previously approved or submitted deliverables.</td>
<td></td>
</tr>
<tr>
<td>2019.07.PM03</td>
<td>Low</td>
<td>Develop a formal configuration management plan.</td>
<td>2019.07.PM14</td>
<td>Update the project schedule to assign quality assurance resources.</td>
<td></td>
</tr>
<tr>
<td>2019.07.IT06.R1</td>
<td>Low</td>
<td>Develop a formal configuration management plan.</td>
<td>2019.07.IT06.R2</td>
<td>Finalize the security management plan.</td>
<td></td>
</tr>
<tr>
<td>2019.07.IT07.R1</td>
<td>Low</td>
<td>Ensure the security management plan meets specific standards.</td>
<td>2019.07.IT07.R2</td>
<td>Finalize the security management plan which meets specific standards.</td>
<td></td>
</tr>
</tbody>
</table>

Security

Security 2019.07.IT07 Risk

Accuity will continue to evaluate the security management plans and documentation as they are finalized.

Security

Security 2019.07.IT06 Risk

Accuity will continue to evaluate the configuration management plan and documentation.

Security

Security 2019.07.IT05 Risk

Accuity will continue to evaluate the quality management plan and documentation.

Security

Security 2019.07.PM03 Risk

Accuity will continue to evaluate the security management plan and documentation.

Security

Security 2019.07.PM14 Risk

Accuity will continue to evaluate the security management plan and documentation.

Security

Security 2019.07.IT06 Risk

Accuity will continue to evaluate the configuration management plan and documentation.

Security

Security 2019.07.IT07 Risk

Accuity will continue to evaluate the security management plan and documentation.

Security

Security 2019.07.PM14 Risk

Accuity will continue to evaluate the security management plan and documentation.

Security

Security 2019.07.PM03 Risk

Accuity will continue to evaluate the configuration management plan and documentation.

Security

Security 2019.07.IT05 Risk

Accuity will continue to evaluate the quality management plan and documentation.
## Project Organization and Management

**Finding:** Project Resources

- **Status:** Under Investigation
- **Updated:** 09/28/2020
- **Description:**
  - The DataHouse team’s updated project management plan to include some additional details regarding Phase 2 deliverables and several project management processes. Additional clarification of project management processes (e.g., performance metrics, monitoring DHR project resources, tracking documents, implementing changes, and re-estimating project costs) is needed.

- **Recommendation:**
  - Complete Phase 2 planning.

- **Closures:**
  - Completed 10/23/20: DataHouse and DLIR discussed and clarified project management processes. In general, project performance metrics are not collected or monitored. Instead, DataHouse primarily uses the environment’s perception of project status as an indicator for project milestones.
  - Completed 09/28/20: DataHouse updated the project management plan to include some additional details regarding Phase 2 deliverables and several project management processes.

## Project Software, Hardware, and Integrations

**Finding:** System Software, Hardware, and Integrations

- **Status:** Under Investigation
- **Updated:** 09/28/2020
- **Description:** The DataHouse team’s swift and adaptive response to issues and risks has helped to minimize impact and further delays to project development.

- **Recommendation:**
  - Review the project management plan to include some additional details regarding Phase 2 deliverables and several project management processes.

- **Closures:**
  - Completed 10/23/20: DataHouse discussed and clarified project management processes. In general, performance metrics are not collected or monitored. Instead, DataHouse primarily uses the environment’s perception of project status as an indicator for project milestones.
  - Completed 09/28/20: DataHouse updated the project management plan to include some additional details regarding Phase 2 deliverables and several project management processes.

## Project Organization and Management

**Finding:** Project Organization and Management

- **Status:** Under Investigation
- **Updated:** 09/28/2020
- **Description:** The DataHouse team’s swift and adaptive response to issues and risks has helped to minimize impact and further delays to project development.

- **Recommendation:**
  - Review the project management plan to include some additional details regarding Phase 2 deliverables and several project management processes.

- **Closures:**
  - Completed 10/23/20: DataHouse discussed and clarified project management processes. In general, performance metrics are not collected or monitored. Instead, DataHouse primarily uses the environment’s perception of project status as an indicator for project milestones.
  - Completed 09/28/20: DataHouse updated the project management plan to include some additional details regarding Phase 2 deliverables and several project management processes.
The DCD Executive Sponsor is highly engaged and plays an active and visible role in guiding, monitoring, and championing the eCMS Project.

The DataHouse proposal and Project Management Plan (version 1.2) makes an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.

The DataHouse Project Sponsor decreased the severity rating from Level 2 (Moderate) to Level 1 (Low) indicating that the impact is no longer significant. The thresholds for decisions that require committee attention were also established.

The MOU with DHS is close to being finalized. The MOU with DHS for Datacap and FileNet licenses is close to being finalized. This timeframe was decided on as it allows DLIR to proactively involve stakeholders in testing production and provide stakeholders the appropriate time to ready their systems for electronic filing.

The DataHouse proposal and Project Management Plan (version 1.2) make an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.

DataHouse has shown an openness to develop and continuously improve project deliverables including project plans. Roles and responsibilities among project team members need to be more openly discussed and plan to be incorporated into the Project Management Plan.

The eCMS Project's primary modernization objective is to move to a single electronic system of record. As such, manual paper forms may continue to be submitted by law. DLIR should begin as early as possible so as not to postpone or reduce the realization of the benefits from the new system.

The DCD Executive Sponsor is highly engaged and plays an active and visible role in guiding, monitoring, and championing the eCMS Project.

The DataHouse proposal and Project Management Plan (version 1.2) make an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.

The DataHouse proposal and Project Management Plan (version 1.2) make an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.

The eCMS Project's primary modernization objective is to move to a single electronic system of record. As such, manual paper forms may continue to be submitted by law. DLIR should begin as early as possible so as not to postpone or reduce the realization of the benefits from the new system.

The DCD Executive Sponsor is highly engaged and plays an active and visible role in guiding, monitoring, and championing the eCMS Project.

The DataHouse proposal and Project Management Plan (version 1.2) make an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.

The DCD Executive Sponsor is highly engaged and plays an active and visible role in guiding, monitoring, and championing the eCMS Project.

The DataHouse proposal and Project Management Plan (version 1.2) make an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.

The DCD Executive Sponsor is highly engaged and plays an active and visible role in guiding, monitoring, and championing the eCMS Project.

The DataHouse proposal and Project Management Plan (version 1.2) make an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.

The DataHouse proposal and Project Management Plan (version 1.2) make an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.

The DCD Executive Sponsor is highly engaged and plays an active and visible role in guiding, monitoring, and championing the eCMS Project.

The DCD Executive Sponsor is highly engaged and plays an active and visible role in guiding, monitoring, and championing the eCMS Project.

The DataHouse proposal and Project Management Plan (version 1.2) make an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.

The eCMS Project's primary modernization objective is to move to a single electronic system of record. As such, manual paper forms may continue to be submitted by law. DLIR should begin as early as possible so as not to postpone or reduce the realization of the benefits from the new system.

The DCD Executive Sponsor is highly engaged and plays an active and visible role in guiding, monitoring, and championing the eCMS Project.

The DataHouse proposal and Project Management Plan (version 1.2) make an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.

The DCD Executive Sponsor is highly engaged and plays an active and visible role in guiding, monitoring, and championing the eCMS Project.

The DataHouse proposal and Project Management Plan (version 1.2) make an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.

The DataHouse proposal and Project Management Plan (version 1.2) make an effort to identify and address the obstacles and impediments. However, the lack of a formal executive steering committee and change control board may limit the effectiveness of project governance.
DataHouse is using a modified Agile development methodology that is referred to as “Water-Scrum-Fall”. This is a combination of the waterfall and Agile methods that defines the full set of project phases, sprint goals, and frequent user demonstrations and feedback. The development proceeds by breaking down the project into Scrum phases or sprints that are typically two to four weeks in duration. The Scrum phases are: planning, execution, review, and retrospective. The planning phase is used to set the direction of the project and outline the main goals. During the execution phase, the project team works together to deliver the project objectives. The review phase is used to inspect and test the product to ensure it meets the requirements. The retrospective phase is used to identify areas for improvement for the next sprint. As DataHouse proceeds with the development of the Case Management project, there is a need to communicate the methodology to all team members and impacted stakeholders. The methodology is referred to as “Water-Scrum-Fall” and is described as follows:

1. Planning: This phase is used to define the project goals, scope, and requirements. The project team reviews the project plan and identifies any gaps or issues.
2. Execution: This phase is used to build the product. The project team works on the development of the project and ensures that the project goals are achieved.
3. Review: This phase is used to inspect and test the product to ensure it meets the requirements. The project team reviews the product and identifies any issues or gaps.
4. Retrospective: This phase is used to identify areas for improvement for the next sprint. The project team reviews the results of the previous sprint and identifies areas for improvement.

The project team and stakeholders have been informed about the “Water-Scrum-Fall” methodology, and the methodology has been formalized and communicated to the DLIR eCMS Product Owners. The recommendation to communicate the methodology to all impacted stakeholders will continue to be monitored under the 2019.07.PM05 Stakeholder Communications finding.

## Business Process Improvement

### Business Process Registration

- **Date:** 09/20/19
- **Issue:** U2.2.5.21 IS:030
- **Type:** Task
- **Title:** Formalize an approach for executing Scrum phases.

Although DataHouse has implemented the Case Management sprint schedule into the overall project schedule and provided a high-level overview of the project phases, it needs to be covered by each sprint, roles and responsibilities need to be clearly defined and communicated. The Case Management development team follows a semi-structured project model and plans to identify roles and responsibilities of impacted Product Owners and key stakeholders. The methodology of all impacted stakeholders will continue to be monitored under the 2019.07.PM05 Stakeholder Communications finding.

## Business Process Improvement

### Business Process Registration

- **Date:** 10/25/19
- **Issue:** U2.2.5.21 IS:030
- **Type:** Task
- **Title:** Communicate the approach for executing Scrum phases to all team members and impacted stakeholders.

Although DataHouse has implemented the Case Management sprint schedule into the overall project schedule and provided a high-level overview of the project phases, it needs to be covered by each sprint, roles and responsibilities need to be clearly defined and communicated. The Case Management development team follows a semi-structured project model and plans to identify roles and responsibilities of impacted Product Owners and key stakeholders. The methodology of all impacted stakeholders will continue to be monitored under the 2019.07.PM05 Stakeholder Communications finding.

## Cost Analysis

### Business Process Registration

- **Date:** 12/20/19
- **Issue:** U2.2.5.21 IS:030
- **Type:** Task
- **Title:** Evaluate other total solution alternatives for an alternative solution.

Although the DataHouse BAFO to leverage the existing DHS FileNet hosting infrastructure is no longer a feasible solution, DataHouse has also recommended that a comprehensive technical analysis be prepared on the replacement solution; however, DLIR decided not to formally document the analysis as they are comfortable with a technical analysis based on reading of AWS whitepapers, the information provided by DataHouse, and discussions with ETS and EDPSO. Additionally, the ASSESSMENT section of the document contains recommendations that will be made to the Board of Review on how the new solution plans on measuring and achieving key business process improvement performance goals.
<table>
<thead>
<tr>
<th>ID</th>
<th>Original Severity</th>
<th>Current Severity</th>
<th>Finding Analysis</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.07.IT03</td>
<td>High</td>
<td>N/A</td>
<td>The Content Management design documents were based on incomplete, inaccurate, and outdated requirements. The Content Management design documents were based on incomplete, inaccurate, and outdated requirements. The recent DHS development will require design documents to be updated after an alternative Content Management Design document was approved by DUSA on May 6, 2019. The recent DHS development will require design documents to be updated after an alternative Content Management Design document was approved by DUSA on May 6, 2019. Design documents are regularly updated as changes to requirements are made. The requirements document deficiencies should be remediated immediately and the design documents updated accordingly.</td>
<td>Update the Content Management design documents.</td>
</tr>
<tr>
<td>2019.07.IT04</td>
<td>Moderate</td>
<td>N/A</td>
<td>A Content Management data conversion plan that is based on incomplete, inaccurate, and outdated requirements may impact the data migration design process and require additional effort to correct. The Content Management conversion documents have not yet been drafted. The Content Management conversion documents have not yet been drafted. The requirements document deficiencies should be remediated immediately and the data conversion plan updated accordingly.</td>
<td>Update the Content Management data conversion plan.</td>
</tr>
</tbody>
</table>

**Closed 09/20/19:** Accuity decreased the severity rating from Level 1 (High) to Level 2 (Moderate). DataHouse updated the Content Management Design Document to include additional, more detailed requirements. Detailed plans for defining 2019.07.PM10 are in the process of updating the requirements document to include all requirements from the DataHouse contract. DataHouse updated the Content Management Design Document to include additional, more detailed requirements. Detailed plans for defining 2019.07.PM10 are in the process of updating the requirements document to include all requirements from the DataHouse contract. DataHouse updated the Content Management Design Document to include additional, more detailed requirements. Detailed plans for defining 2019.07.PM10 are in the process of updating the requirements document to include all requirements from the DataHouse contract. 10/25/2019: The Content Management design documents are regularly updated as changes to requirements are made. The completeness of the design with respect to contract requirements will continue to be monitored under the 2019.07.PM10 requirements finding.

**Closed 09/20/19:** Accuity has kept the severity rating as Level 2 (Moderate). The Content Management Conversion and Migration Plan (version 1.1) was updated on 09/05/19 before the Content Management design documents were updated. Additional requirements should be evaluated for the impacts on the conversion and migration plans and the detailed taxonomy mapping. DataHouse evaluated the new requirements and determined that there is no impact to the high level Content Management conversion requirements included in the Conversion and Migration Plan. 10/25/2019: Accuity reviewed the taxonomy mapping with the primary stakeholders and determined that no significant impact on the Content Management data conversion plan as the legacy system has limited data fields that are currently used.
## Appendix E: Prior IV&V Reports

<table>
<thead>
<tr>
<th>AS OF DATE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/30/19</td>
<td>Initial On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>09/20/19</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>10/25/19</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>11/22/19</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>12/20/19</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>01/24/20</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>02/20/20</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>03/27/20</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>04/24/20</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>05/22/20</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>06/26/20</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>07/29/20</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>08/21/20</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>09/28/20</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
<tr>
<td>10/23/20</td>
<td>Monthly On-Site IV&amp;V Review Report</td>
</tr>
</tbody>
</table>
Appendix F: Comment Log on Draft Report
## Appendix F: Comment Log on Draft Report

### DLIR DCD eCMS Project: IV&V Document Comment Log

<table>
<thead>
<tr>
<th>ID #</th>
<th>Page #</th>
<th>Comment</th>
<th>Commenter’s Organization</th>
<th>Accuity Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>No DLIR comments.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>