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July 7, 2021

The Honorable Ronald D. Kouchi,
President, and
Members of The Senate
Thirty-First State Legislature
Hawaii State Capitol, Room 409
Honolulu, Hawaii 96813

The Honorable Scott K. Saiki,
Speaker, and
Members of The House of Representatives
Thirty-First State Legislature
Hawaii State Capitol, Room 431
Honolulu, Hawaii 96813

Dear President Kouchi, Speaker Saiki, and Members of the Legislature:

Pursuant to HRS section 27-43.6, which requires the Chief Information Officer to submit applicable independent verification and validation (IV&V) reports to the Legislature within ten days of receiving the report, please find attached the report the Office of Enterprise Technology Services received for the State's Employer-Union Health Benefits Trust Fund Benefits Administration System project.

In accordance with HRS section 93-16, this report may be viewed electronically at http://ets.hawaii.gov (see "Reports").

Sincerely,

Douglas Murdock (Jul 8, 2021 15:10 HST)

DOUGLAS MURDOCK
Chief Information Officer
State of Hawai'i

Attachment (1)

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

Hawaii Employer-Union Health Benefits Trust Fund Benefits Administration System (BAS)

MONTHLY IV&V STATUS & MILESTONE REPORT

May 26, 2021 | Version 1.0

REPORT FINALIZED

June 23, 2021

ACCUITY

An independent member of bakertilly INTERNATIONAL

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Document History

DATE	DESCRIPTION	AUTHOR	VERSION
06/07/21	Monthly IV&V Status and Milestone Report Draft created	Julia Okinaka	0.0
06/23/21	Monthly IV&V Status Report updated for corrections to the severity rating count in the IV&V Dashboard. References to Morneau Shepell were changed to LifeWorks in Appendix E. No comments submitted in Appendix F.	Julia Okinaka	1.0

EXECUTIVE SUMMARY

BACKGROUND

The State of Hawaii (State), Employer-Union Health Benefits Trust Fund (EUTF) contracted Morneau Shepell Limited (now formally called LifeWorks) with their Ariel EAS technology solution for the Health Benefits Administration System Modernization Project (BAS Project) on June 1, 2020. On May 17, 2021, Morneau Shepell officially changed its company name to LifeWorks. EUTF also contracted Segal to provide project management, business process reengineering (BPR), organizational change management (OCM), and quality management. Segal's subcontractor, ICON Consulting (ICON), is responsible for data consulting and conversion.

The Office of Enterprise Technology Services (ETS) contracted Accuity LLP (Accuity) to provide Independent Verification and Validation (IV&V) services for the EUTF BAS Project. The goal of IV&V is to increase the probability of project success. The benefits of IV&V include identification of high-risk areas early and actionable recommendations.

Following IV&V's Initial Assessment Report, Monthly IV&V Status Reports are issued to update and evaluate continual project progress and performance. This Monthly IV&V Status Report also includes the IV&V Milestone Report to evaluate and assess the post-milestone execution for Segment 1 activities and improvements made for Segment 2 activities. The project has an incremental delivery method spread over 4 segments, and the project is currently in Segment 2 delivery. Each segment consists of two to three intervals.

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 May 26, 2021. Refer to Appendix A: IV&V Criticality and Severity Ratings for an explanation of the ratings and Appendix E: Prior Findings Log for prior report findings.

FLEXIBILITY AND TAKING ACTION

"When you can't change the direction of the wind - adjust your sails."

- H. Jackson Brown Jr.

PROJECT ASSESSMENT

AS OF MAY 26, 2021

SUMMARY RATINGS

OVERALL RATING

G

Minimal deficiencies were observed. Oversight may be needed to ensure risks stay low and project remains on track.

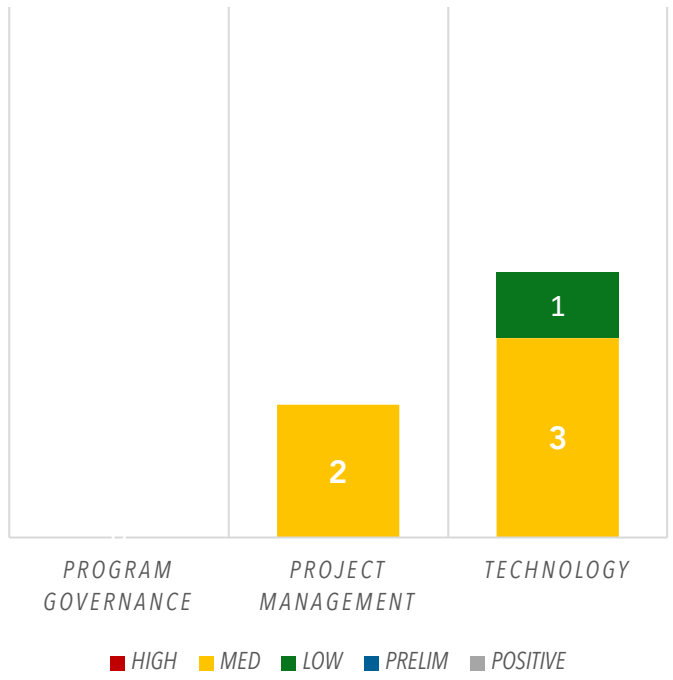
PROGRAM GOVERNANCE	G
PROJECT MANAGEMENT	G
TECHNOLOGY	Y
MILESTONE EXECUTION	G

CRITICALITY RATINGS

R	Y	G	NA
HIGH	MEDIUM	LOW	N/A

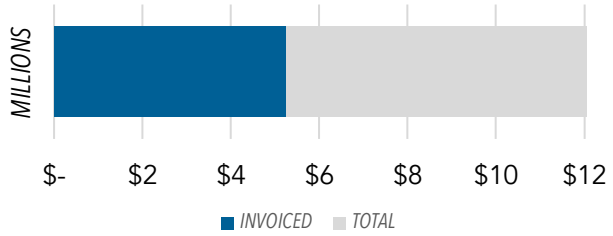
6 OPEN FINDINGS

SEVERITY RATINGS BY ASSESSMENT AREA



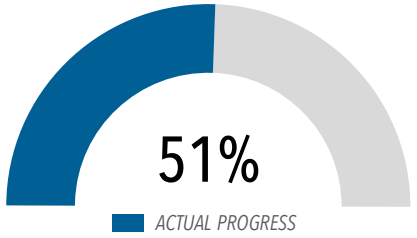
6 OPEN RECOMMENDATIONS

PROJECT BUDGET *

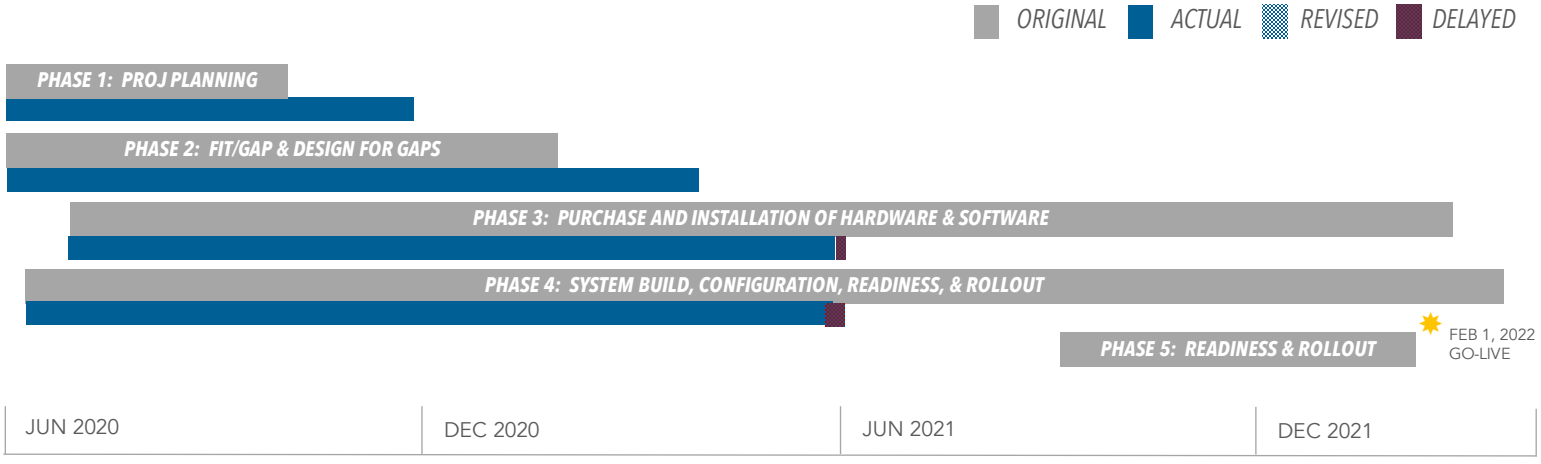


*Only includes contracts.

PROJECT PROGRESS



PROJECT TIMELINE**



**Revised project schedule approved by EUTF.

ASSESSMENT AREA & RATINGS SUMMARY

AS OF MAY 26, 2021

MAR	APR	MAY	IV&V ASSESSMENT AREA	IV&V OBSERVATIONS
G	G↓	G↓	*Overall*	The overall project rating is a green downward arrow reflecting several areas the project is doing well, and areas for improvement primarily around project management, schedule management, data conversion, testing, and quality management. Project Schedule: A methodology to compare planned vs. actual progress is pending and the project continues to experience delays. The postponement of Segment 2 UAT testing and other delays need to be analyzed for impacts to the overall timeline and resources (Refer to findings 2021.02.PM01 and 2021.05.IT01). Project Costs: Project contract costs invoiced to-date approximated $5,244,000 and are aligned with the project milestone schedule. Quality: Quality metrics should be reported and communicated for project management review and risk assessment. Lifeworks needs to formally analyze quality concerns related to system functionality and demonstrations (Refer to finding 2021.01.IT01).
G	G	G	*Program Governance*	Program governance works effectively, and the steering committee continues to convene monthly to discuss project status, risks, and issues. The steering committee role is important to ensure quality project outcomes within the remaining project timeline.
G	G↓	G↓	*Project Management*	Although the project team works together cohesively, there needs to be improved coordination, communication, and control of all project workstreams (Refer to finding 2021.04.PM01). Despite additional resources added for QA, configuration, and project management, the project has continued schedule delays in data conversion, testing, interval demonstrations, deferred requirements, and carrier interfaces. In addition, risks associated with recent project delays and challenges should have been more proactively identified.
G↓	Y	Y	*Technology*	Build and configuration for Interval 6 is almost complete and in progress for interval 7. Data Conversion Cycle 2 nears completion after experiencing data derivation challenges and the validation results are still pending EUTF review. An additional LifeWorks resource was added to support the coordination of data conversion activities. Segal also plans to add data conversion management support (Refer to finding 2021.04.IT01). Segment 2 UAT was delayed due to issues with data conversion impacting the availability of the UAT environment. LifeWorks worked diligently to address security concerns and is now following their patch and vulnerability management policies and procedures. Interim remediation controls were put in place, and full vulnerability remediation is scheduled for completion by August 2021 (Refer to finding 2021.04.IT02).
NA	G↓	G↓	*Milestone Execution*	The project completed Segment 1 delivery with Segment 2 in progress. Overall, Segment 1 was executed successfully with lessons learned recorded in a formal log. EUTF approved 101 out of 137 Segment 1 requirements, with the remaining requirements pending additional configuration, testing, and/or remediation. The process for unapproved and deferred requirements is still unclear. Segment 2 UAT will commence although segment testing by LifeWorks is still in progress, which may impact overall system quality and the effective execution of UAT (Refer to finding 2021.05.IT01). The project should formalize the development of formal procedures and acceptance criteria for the pre and post Segment delivery milestones.

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 any 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 each of the three major IV&V Assessment Areas. The criticality rating for seven IV&V Assessment Categories are solid green. One IV&V Assessment Category improved, and three IV&V Assessment Categories declined from the prior report. A table of the post-milestone execution assessment for Segment 1 and some Segment 2 activities is also included below.

AT-A-GLANCE

Need improved **COORDINATION** of information, tasks, and lessons learned

SEGMENT 2 TESTING IS DELAYED

Formalize **ACCEPTANCE CRITERIA** for Segment delivery

MAY	MILESTONE EXECUTION
Y	Plans and Processes
G	People
G	Technology

MAR	APR	MAY	PROGRAM GOVERNANCE
G	G	G	Governance Effectiveness
G	G	G	Benefits Realization

MAR	APR	MAY	TECHNOLOGY
G	G	G	System Software, Hardware, and Integrations
G	Y	Y	Data Conversion
Y	Y	Y	Quality Management and Testing
G	G	G	Configuration Management
G	Y	G	Security
NA	NA	NA	Deployment and Operations

MAR	APR	MAY	PROJECT MANAGEMENT
G	G	Y	Project Organization and Management
G	G	G	Requirements Management
Y	Y	Y	Cost, Schedule, and Resource Management
G	G	G	Risk Management
G	G	G	Communications Management
G	G	G	Organizational Change Management (OCM)
G	G	G	Business Process Reengineering (BPR)
G	G	G	Training and Knowledge Transfer

PROGRAM GOVERNANCE

Governance Effectiveness

Benefits Realization

G PROGRAM GOVERNANCE

MAR	APR	MAY	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	G	G	Governance Effectiveness	Program governance works effectively, and the steering committee continues to convene monthly to discuss project status, risks, and issues. The steering committee role is important to ensure quality project outcomes within the remaining project timeline.	0	0	0
G	G	G	Benefits Realization	Project metrics are tracked and communicated in weekly project meetings. Quality metrics should be reported and communicated for project management review and risk assessment.	0	0	0

PROJECT MANAGEMENT

Project Organization and Management

Requirements Management

Cost, Schedule, and Resource Management

Risk Management

Communications Management

Organizational Change Management

Business Process Reengineering

Training and Knowledge Transfer

PROJECT MANAGEMENT

MAR	APR	MAY	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	G	Y	Project Organization and Management	Although the project team works together cohesively, there needs to be improved coordination, communication, and control of all project workstreams (Refer to finding 2021.04.PM01). Despite additional resources added for QA, configuration, and project management, the project has continued schedule delays in data conversion, testing, interval demonstrations, deferred requirements, and carrier interfaces. In addition, risks associated with recent project delays and challenges should have been more proactively identified.	0	1	3
G	G	G	Requirements Management	The Segal PM continues to work with LifeWorks and EUTF to actively track the status, demonstration, and approval of requirements. EUTF approved 101 Segment 1 requirements, with remaining requirements pending additional configuration, testing, and/or remediation. Approximately 45 Segment 1 requirements and 7 defects were deferred to later segments and the process for unapproved and deferred requirements is still unclear.	0	0	0
Y	Y	Y	Cost, Schedule, and Resource Management	Project contract costs invoiced to-date approximated $5,244,000 and are aligned with the project milestone schedule. A methodology to compare planned vs. actual progress is pending and the project continues to experience delays. The postponement of Segment 2 UAT testing and other delays need to be analyzed for impacts to the overall timeline and resources (Refer to findings 2021.02.PM01 and 2021.05.IT01).	0	1	0

PROJECT MANAGEMENT

- Project Organization and Management
- Requirements Management
- Cost, Schedule, and Resource Management
- Risk Management
- Communications Management
- Organizational Change Management
- Business Process Reengineering
- Training and Knowledge Transfer

MAR	APR	MAY	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	G	G	Risk Management	Risks associated with recent project delays and challenges should have been more proactively identified. The project team should continue working together to address existing risks and issues.	0	0	0
G	G	G	Communications Management	With strong support by the Segal Project Manager, the project effectively keeps project stakeholders informed and engaged through meetings, surveys, and a change champions network. EUTF developed several communications to external stakeholders including an enrollment tips memo distributed to all employers and an open enrollment video announcing the roll-out of the new BAS system in early 2022.	0	0	0
G	G	G	Organizational Change Management (OCM)	EUTF identified a Change Lead and Change Champion network. The Change Champion network has convened resulting in constructive feedback that was shared with the project team.	0	0	0
G	G	G	Business Process Reengineering (BPR)	Business process improvements through system functionality continue to be explored and discussed during system demonstrations and Joint Stand-up meetings. Training surveys indicated that there may still be some questions on how to best use Ariel functionality in EUTF's daily, weekly, monthly, and annual processes. EUTF will try to address these business process questions while LifeWorks is on-site for UAT.	0	0	0
G	G	G	Training and Knowledge Transfer	LifeWorks staff were onsite to provide Segment 2 training. Training surveys were administered with feedback shared immediately for continuous improvement. The survey feedback was also incorporated into the lessons learned log for tracking and applicable actions.	0	0	0

PROJECT MANAGEMENT

Project Organization and Management

Requirements Management

Cost, Schedule, and Resource Management

Risk Management

Communications Management

Organizational Change Management

Business Process Reengineering

Training and Knowledge Transfer

FINDING #: 2021.04.PM01	STATUS: OPEN	TYPE: RISK	SEVERITY: 2

TITLE: NEED FOR GREATER COORDINATION OF PROJECT INFORMATION, RESOURCES, TASKS, AND LESSONS LEARNED

Finding: Need for greater coordination and control of project information, resources, tasks, and lessons learned to ensure project quality and performance.

Industry Standards and Best Practices: PMI PMBOK Chapter 3 describes the critical role of a project manager in leading a project team to achieve project objectives and guiding the team through the successful integration of processes, knowledge, and people. PMBOK Chapter 4 defines the project manager's vital role in project integration management to manage and coordinate all processes, activities, and communication to achieve project objectives.

Analysis: This was originally reported in the April 2021 IV&V Monthly Report as a preliminary concern but is upgraded to a risk in this report. LifeWorks has a dedicated team that includes various leads and groups with different functional area responsibilities including requirements management, build/configuration, data conversion, training, and testing. The leads and SMEs of these functional teams work together and often attend cross-functional meetings; however, as the project progresses it is becoming more apparent that there needs to be improved coordination and control of workstreams to regularly assess and ensure the quality and performance of each work stream's output. These functional teams are not only accountable for their own work streams but are accountable to each other for properly sharing information, finishing their tasks timely, and openly sharing feedback and lessons learned to improve the team's overall project delivery.

Recommendation: 2021.04.PM01.R1 – *Clarify roles and responsibilities for key tasks and milestones in each workstream.*

- Review project plans and hold project team members accountable for their specific responsibilities under each workstream.
- Incorporate clear and detailed procedures for roles and responsibilities related to the execution of agile-like Segment activities and Go/No-Go Criteria.

TECHNOLOGY

System Software, Hardware, and Integrations

Data Conversion

Quality Management and Testing

Configuration Management

Security

Deployment and Operations

TECHNOLOGY

MAR	APR	MAY	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	G	G	System Software, Hardware, and Integrations	Build and configuration for Interval 6 is almost complete and in progress for Interval 7. Carrier meetings continued this month related to interface files and testing; however, a revised interface schedule is still pending. The UAT environment was not ready for EUTF UAT due to data conversion issues related to the loading of Medicare data.	0	0	1
G	Y	Y	Data Conversion	Data Conversion Cycle 2 nears completion after experiencing data derivation challenges and the validation results are still pending EUTF review. An additional LifeWorks resource was added to support the coordination of data conversion activities. Segal also plans to add data conversion management support (Refer to finding 2021.04.IT01). Segment 2 UAT was delayed due to issues with data conversion impacting the availability of the UAT environment.	0	1	0
Y	Y	Y	Quality Management and Testing	Segment 2 testing by LifeWorks is delayed and not following the UAT Testing Strategy which may impact overall system quality. LifeWorks segment testing is over one month behind its target completion date of April 29, 2021, with 54 requirements still pending segment testing. Without completing Segment 2 testing, Segment 2 functionality was not validated leading to the increased risk of design and functionality issues (Refer to finding 2021.05.IT01).	1	2	0
G	G	G	Configuration Management	No significant updates from the prior report.	0	0	0

TECHNOLOGY

System Software, Hardware, and Integrations

Data Conversion

Quality Management and Testing

Configuration Management

Security

Deployment and Operations

MAR	APR	MAY	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	Y	G	Security	LifeWorks worked diligently to address security concerns and is now following their patch and vulnerability management policies and procedures. Interim remediation controls were put in place, and full vulnerability remediation is scheduled for completion by August 2021 (Refer to finding 2021.04.IT02).	0	1	0
NA	NA	NA	Deployment and Operations	Deployment activities are not occurring at this stage of the project.	0	0	0

TECHNOLOGY

System Software, Hardware, and Integrations

Data Conversion

Quality Management and Testing

Configuration Management

Security

Deployment and Operations

FINDING #: 2021.05.IT01	STATUS: OPEN	TYPE: RISK	SEVERITY: 2

TITLE: SEGMENT 2 TESTING IS NOT FOLLOWING UAT TESTING STRATEGY

Finding: Segment 2 testing by LifeWorks is not following the UAT Testing Strategy which may impact overall system quality and the effective execution of UAT.

Industry Standards and Best Practices: Institute of Electrical and Electronics Engineers (IEEE) 29119 Software and Systems Engineering – Software Testing, outlines best practices for test plans, test processes, and test techniques.

Analysis: The UAT Testing Strategy for Segment 2 states that the successful completion of the internal LifeWorks segment testing is an entry criteria to maximize the effectiveness of EUTF UAT; however, EUTF started UAT prior to the completion of Lifeworks' system testing. The purpose of segment testing is to ensure that Ariel is working as intended and any identified defects are addressed prior to the solution being delivered. LifeWorks segment testing is over one month behind its target completion date of April 29, 2021, with 54 requirements still pending segment testing. Without completing Segment 2 testing, Segment 2 functionality was not validated leading to the increased risk of design and functionality issues.

Recommendation: 2021.05.IT01.R1 – *Lifeworks to align segment testing execution to UAT Testing Strategy.*

- LifeWorks and EUTF should work together to evaluate the risks associated with not following UAT Testing Strategy against the need to adhere to the project timeline.
- Develop and commit to realistic timelines to address project execution issues considering the availability of LifeWorks and EUTF resources.

MILESTONE EXECUTION

Plans and Processes

People

Technology

MILESTONE READINESS AND EXECUTION

MAR	APR	MAY	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
NA	G	Y	Plans and Processes	The project has an incremental delivery method spread over 4 segments, and the project has completed Segment 1 with Segment 2 in progress. Overall, Segment 1 was executed successfully with lessons learned recorded in a formal log. EUTF approved 101 out of 137 Segment 1 requirements, with the remaining requirements pending additional configuration, testing, and/or remediation. Approximately 45 Segment 1 requirements and 7 defects were deferred to later segments and the process for unapproved and deferred requirements is still unclear. The project should formalize the development of procedures and acceptance criteria for the pre and post segment delivery milestones.	0	0	0
NA	G	G	People	LifeWorks provided onsite support for Segment 2 training. Surveys continued to be administered with feedback shared immediately for continuous improvement. EUTF has requested specific and upfront communication on what system functionality is available for testing prior to the commencement of UAT.	0	0	0
NA	G	G	Technology	Segment 2 UAT will commence although segment testing by LifeWorks is still in progress, which could create an increase in identified defects and quality issues. The start of Segment 2 UAT was delayed due to issues with data conversion impacting the availability of the UAT environment. As some data conversion records are still pending and the Data Conversion Derivation Logic document is still under review, oversight and execution of data conversion activities is critical to ensure the smooth execution of Segment 3 (Refer to finding 2021.04.IT01).	0	0	0

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.

TERMS

RISK
An event that has not happened yet.

ISSUE
An event that is already occurring or has already happened.

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

POSITIVE
Celebrates high performance or project successes.

PRELIMINARY CONCERN
Potential risk requiring further analysis.

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.

SEVERITY 1: High/Critical level

SEVERITY 2: Moderate level

SEVERITY 3: Low level

Appendix B: Industry Standards and Best Practices

STANDARD	DESCRIPTION
ADA	Americans with Disabilities Act
ADKAR®	Prosci ADKAR: Awareness, Desire, Knowledge, Ability, and Reinforcement
BABOK® v3	Business Analyst Body of Knowledge
DAMA-DMBOK® v2	DAMA International's Guide to the Data Management Body of Knowledge
HIPAA	Health Insurance Portability and Accountability Act of 1996
MARS-E v2.0	CMS Minimum Acceptable Risk Standards for Exchanges – Exchange Reference Architecture Supplement
MITA v3.0	Medicaid Information Technology Architecture
PMBOK® v6	Project Management Institute (PMI) Project Management Body of Knowledge
SWEBOK v3	Guide to the Software Engineering Body of Knowledge
TOGAF® v9.2	The Open Group Architecture Framework Standard
COBIT® 2019 Framework	Control Objectives for Information and Related Technologies Framework
IEEE 828-2012	Institute of Electrical and Electronics Engineers (IEEE) Standard for Configuration Management in Systems and Software Engineering
IEEE 1062-2015	IEEE Recommended Practice for Software Acquisition
IEEE 1012-2016	IEEE Standard for System, Software, and Hardware Verification and Validation
IEEE 730-2014	IEEE Standard for Software Quality Assurance Processes
ISO 9001:2015	International Organization for Standardization (ISO) Quality Management Systems – Requirements
ISO/IEC 25010:2011	ISO/International Electrotechnical Commission (IEC) Systems and Software Engineering – Systems and Software Quality Requirements and Evaluation (SQuaRE) – System and Software Quality Models
ISO/IEC 16085:2006	ISO/IEC Systems and Software Engineering – Life Cycle Processes – Risk Management

STANDARD	DESCRIPTION
IEEE 16326-2019	ISO/IEC/IEEE International Standard – Systems and Software Engineering – Life Cycle Processes – Project Management
IEEE 29148-2018	ISO/IEC/IEEE International Standard – Systems and Software Engineering – Life Cycle Processes – Requirements Engineering
IEEE 15288-2015	ISO/IEC/IEEE International Standard – Systems and Software Engineering – System Life Cycle Processes
IEEE 12207-2017	ISO/IEC/IEEE International Standard – Systems and Software Engineering – Software Life Cycle Processes
IEEE 24748-1-2018	ISO/IEC/IEEE International Standard – Systems and Software Engineering – Life Cycle Management – Part 1: Guidelines for Life Cycle Management
IEEE 24748-2-2018	ISO/IEC/IEEE International Standard – Systems and Software Engineering – Life Cycle Management – Part 2: Guidelines for the Application of ISO/IEC/IEEE 15288 (System Life Cycle Processes)
IEEE 24748-3-2012	IEEE Guide: Adoption of ISO/IEC TR 24748-3:2011, Systems and Software Engineering – Life Cycle Management – Part 3: Guide to the Application of ISO/IEC 12207 (Software Life Cycle Processes)
IEEE 14764-2006	ISO/IEC/IEEE International Standard for Software Engineering – Software Life Cycle Processes – Maintenance
IEEE 15289-2019	ISO/IEC/IEEE International Standard – Systems and Software Engineering – Content of Life Cycle Information Items (Documentation)
IEEE 24765-2017	ISO/IEC/IEEE International Standard – Systems and Software Engineering – Vocabulary
IEEE 26511-2018	ISO/IEC/IEEE International Standard – Systems and Software Engineering – Requirements for Managers of Information for Users of Systems, Software, and Services
IEEE 23026-2015	ISO/IEC/IEEE International Standard – Systems and Software Engineering – Engineering and Management of Websites for Systems, Software, and Services Information
IEEE 42010-2011	ISO/IEC/IEEE International Standard – Systems and Software Engineering – Architecture Description
IEEE 29119-1-2013	ISO/IEC/IEEE International Standard – Software and Systems Engineering – Software Testing – Part 1: Concepts and Definitions
IEEE 29119-2-2013	ISO/IEC/IEEE International Standard – Software and Systems Engineering – Software Testing – Part 2: Test Processes
IEEE 29119-3-2013	ISO/IEC/IEEE International Standard – Software and Systems Engineering – Software Testing – Part 3: Test Documentation
IEEE 29119-4-2015	ISO/IEC/IEEE International Standard – Software and Systems Engineering – Software Testing – Part 4: Test Techniques

STANDARD	DESCRIPTION
IEEE 1484.13.1-2012	IEEE Standard for Learning Technology – Conceptual Model for Resource Aggregation for Learning, Education, and Training
ISO/IEC TR 20000-11:2015	ISO/IEC Information Technology – Service Management – Part 11: Guidance on the Relationship Between ISO/IEC 20000-1:2011 and Service Management Frameworks: ITIL®
ISO/IEC 27002:2013	Information Technology – Security Techniques – Code of Practice for Information Security Controls
SAML v2.0	Security Assertion Markup Language v2.0
SoaML v1.0.1	Service Oriented Architecture Modeling Language
CMMI-DEV v1.3	Capability Maturity Model Integration for Development
FIPS 199	Federal Information Processing Standard (FIPS) Publication 199, Standards for Security Categorization of Federal Information and Information Systems
FIPS 200	FIPS Publication 200, Minimum Security Requirements for Federal Information and Information Systems
NIST 800-53 Rev 5	National Institute of Standards and Technology (NIST) Security and Privacy Controls for Federal Information Systems and Organizations
NIST Cybersecurity Framework v1.1	NIST Framework for Improving Critical Infrastructure Cybersecurity
LSS	Lean Six Sigma

Appendix C: IV&V Monthly Status

MAIN IV&V ACTIVITIES AND ACCOMPLISHMENTS

MAIN IV&V ACTIVITIES AND ACCOMPLISHMENTS
Participated in Hawaii EUTF project management, data conversion, technical, and joint stand-up meetings
Participated in Segment 5 and 6 System Demonstrations
Reviewed Project Lessons Learned Log
Reviewed vulnerability scan and penetration test results, including subsequent remediation plans
Reviewed project plans and strategy documents to assess milestone readiness and execution activities
Finalized April Monthly IV&V Status and Milestone Report and submitted Draft May 2021 Monthly IV&V Status and Milestone Report

KEY UPCOMING IV&V DELIVERABLES

KEY IV&V DELIVERABLES	DRAFT DUE DATE	DRAFT SUBMITTED	FINAL SUBMITTED
May 2021 Monthly IV&V Status and Milestone Report	05/26/21	06/07/21	06/23/21

PRIOR IV&V APPROVED DELIVERABLES

DELIVERABLE	AS OF DATE	APPROVED DATE
IV&V Project Management Plan (IVVP)	N/A	07/22/20
Initial Assessment Report	06/26/20	07/29/20
July 2020 Monthly IV&V Status Report	07/24/20	08/20/20
August 2020 Monthly IV&V Status Report	08/25/20	09/25/20
September 2020 Monthly IV&V Status Report	09/25/20	10/19/20

PRIOR IV&V APPROVED DELIVERABLES (CONTINUED)

DELIVERABLE	AS OF DATE	APPROVED DATE
October 2020 Monthly IV&V Status Report	10/27/20	11/25/20
November 2020 Monthly IV&V Status Report	11/25/20	12/14/20
December 2020 Monthly IV&V Status Report	12/22/20	02/02/21
January 2021 Monthly IV&V Status Report	01/26/21	02/25/21
February 2021 Monthly IV&V Status Report	02/23/21	03/31/21
March 2021 Monthly IV&V Status Report	03/23/21	04/28/21
April 2021 Monthly IV&V Status and Milestone Report	04/27/21	06/04/21

Appendix D: Interviews, Meetings, and Documents

INTERVIEWS

DATE	INTERVIEWEE
05/21/21	Lifeworks PM and Deputy PM - Lessons Learned Log

MEETINGS

DATE	MEETING DESCRIPTION
04/28/21	EUTF - A47 & A87 Document Types
05/03/21	EUTF/ICON/MS Data Conversion Weekly Meeting
05/03/21	IVV and EUTF Open Findings Update
05/03/21	EUTF - UAT Defect Status and Review
05/04/21	EUTF - Joint Weekly Project Team Meeting
05/04/21	Pen Test and V Scan Remediation and Updated Security Docs
05/05/21	VSP - EUTF File Review
05/07/21	EUTF - Joint Stand-up Meeting
05/10/21	EUTF - Joint Stand-up Meeting
05/10/21	EUTF/ICON/MS Data Conversion Weekly Meeting
05/10/21	CVS/SSI EUTF File Status
05/11/21	EUTF Premium Deduction File Meeting with State HIP
05/11/21	EUTF - Joint Weekly Project Team Meeting

MEETINGS (CONTINUED)

DATE	MEETING DESCRIPTION
05/12/21	EUTF - Joint Stand-up Meeting
05/12/21	EUTF - BAS Joint Monthly Steering Committee Meeting
05/13/21	EUTF - Joint Stand-up Meeting
05/14/21	EUTF - Demo 6 Day 1
05/17/21	EUTF/ICON/MS Data Conversion Weekly Meeting
05/18/21	EUTF Interval 6 Technical Requirements Acceptance Criteria
05/19/21	Monthly Meeting with IV&V and PMs
05/21/21	EUTF - Joint Stand-up Meeting
05/21/21	EUTF - Lessons Learned Review with Julia
05/24/21	EUTF - Joint Stand-up Meeting
05/24/21	EUTF/ICON/MS Data Conversion Weekly Meeting
05/24/21	EUTF FSB Test Strategy Meeting
05/24/21	EUTF - Demo 6 Day 2
05/25/21	EUTF - Joint Stand-up Meeting
05/25/21	EUTF - Joint Weekly Project Team Meeting
05/25/21	EUTF - Demo 6 Day 3
05/26/21	EUTF - Biweekly Technical Meeting

DOCUMENTS

TYPE	DOCUMENT
Morneau Shepell Proposal	EUTF BAS RFP 20-002 - Morneau Shepell BAFO Response to BAS Project Oral Presentation Demo Question Requests - FINAL
Request for Proposal	State of Hawaii EUTF BAS RFP No. RFP-20-001 for Project Management and Consulting Services (Release Date 09/25/19)
Segal Proposal	BAFO for RFP No. RFP-20-001 for Project Management and Consulting Services (Effective 03/16/20)
Request for Proposal	State of Hawaii ETS RFP-19-010 EUTF BAS IV&V
Accuity Proposal	Accuity LLP EUTF IVV Proposal RFP-19-010 FINAL
Contract	Morneau Shepell Limited Contract (effective 06/01/20)
Contract	Segal Company Contract (effective 06/01/20)
Contract	Accuity Contract (effective 06/01/20)
Budget	New BAS Budget Worksheet
Project Management	Hawaii EUTF Morneau Shepell Project Kick-Off – FINAL (06/04/20)
Project Management	EUTF – Weekly Project Team Status – 2021-05-04
Project Management	EUTF – Weekly Project Team Status – 2021-05-11
Project Management	EUTF – Weekly Project Team Status – 2021-05-25
Project Management	20210503 Segal EUTF Status Report
Project Management	20210510 Segal EUTF Status Report
Project Management	20210517 Segal EUTF Status Report
Project Management	20210524 Segal EUTF Status Report
Project Management	Hawaii EUTF_ICON Status Report – Week Ending 05 07 2021
Project Management	Hawaii EUTF_ICON Status Report – Week Ending 05 14 2021
Project Management	Hawaii EUTF_ICON Status Report – Week Ending 05 21 2021

DOCUMENTS (CONTINUED)

TYPE	DOCUMENT
Risk and Issues	EUTF – CRAIDL Log
Schedule	Hawaii (EUTF) – BAS Work Plan
Discovery Session	EUTF – Client RTM
Deliverable	Hawaii EUTF – BAS Implementation - Charter, Scope, and Management Plan
Deliverable	EUTF Quality Management Plan_2020.10.14
Deliverable	Ariel EAS BAS Architecture Overview
Deliverable	Ariel EAS Security Plan – EUTF
Deliverable	Patch_Deployment_Process_v1.16-EN
Deliverable	Vulnerability Management_v1.09b
Deliverable	EUTF – UAT Testing Strategy – Segment 2
Security	Security Assessment Report-EUTF_v1.02.docx
Security	2021-03-04-ap-eutf-bat.uat.hroffice.com-Detailed-Scan-Report
Security	2021-03-04-ap-eutf-cfg.uat.hroffice.com-Detailed-Scan-Report
Security	2021-03-04-ee-eutf-bat.uat.hroffice.com-Detailed-Scan-Report
Security	2021-03-04-ee-eutf-cfg.uat.hroffice.com-Detailed-Scan-Report
Security	2021-05-21-ap-eutf-bat.uat.hroffice.com-Detailed-Scan-Report
Security	2021-05-21-ee-eutf-bat.uat.hroffice.com-Detailed-Scan-Report
Security	2021-05-25-ap-eutf-cfg.uat.hroffice.com-Detailed-Scan-Report
Security	2021-05-25-ap-eutf-trn.uat.hroffice.com-Detailed-Scan-Report
Security	2021-05-25-ee-eutf-cfg.uat.hroffice.com-Detailed-Scan-Report
Security	2021-05-26-ee-eutf-trn.uat.hroffice.com-Detailed-Scan-Report
Security	EUTF-Scan Host-List

DOCUMENTS (CONTINUED)

TYPE	DOCUMENT
Security	Nessus Summary
Testing	UAT Segment 1 Follow-up 2
Training	Training Strategy – Segment 2

Appendix E: Prior Findings Log

Appendix E: Prior Findings Log

ASSESSMENT CATEGORY	FINDING ID	TYPE	ORIGINAL SEVERITY	CURRENT SEVERITY	FINDING	ANALYSIS	RECOMMENDATION ID	RECOMMENDATION	SUPPLEMENTAL RECOMMENDATION	FINDING STATUS	FINDING STATUS UPDATE	CLOSED DATE	CLOSURE REASON
Project Organization and Management	2021.04.PM01	Risk	N/A	Moderate	Need for greater coordination and control of project information, resources, tasks, and lessons learned to ensure project quality and performance.	LifeWorks has a dedicated team that includes various leads and groups with different functional area responsibilities including requirements management, build/configuration, data conversion, training, and testing. The leads and SMEs of these functional teams work together and often attend cross-functional meetings; however, as the project progresses it is becoming more apparent that there needs to be improved coordination and control of workstreams to regularly assess and ensure the quality and performance of each work stream's output. These functional teams are not only accountable for their own work streams but are accountable to each other for properly sharing information, finishing their tasks timely, and openly sharing feedback and lessons learned to improve the team's overall project delivery.	2021.04.PM01.R1	Clarify roles and responsibilities for key tasks and milestones in each workstream.	• Review project plans and hold project team members accountable for their specific responsibilities under each workstream. • Incorporate clear and detailed procedures for roles and responsibilities related to the execution of agile-like Segment activities and Go/No-Go Criteria.	Open	05/26/21: This was originally reported in the April 2021 IV&V Monthly Report as a preliminary concern but is upgraded to a risk in May 2021. Despite additional resources added for QA, configuration, and project management, the project has continued schedule delays and miscommunication regarding UAT. A project Lessons Learned Log has been populated with feedback from surveys, change champions, and other observations; however, it has not been discussed as a team to prioritize and agree on how to implement improvements. IV&V will continue to assess project management activities.		
Data Conversion	2021.04.IT01	Risk	Moderate	Moderate	Need to improve the management of data conversion activities and coordination of all parties with data conversion responsibilities.	The successful and complete migration of data is critical to a successful project and requires strong cross-functional team communication and coordination of all data conversion resources. The overall status of data conversion is unclear and there is a need to improve the management of data conversion activities and coordination of responsible parties. Data Conversion Cycle 1 results were not formally approved and although Data Conversion Cycle 2 is in progress, it is unclear if they are on track to meet Data Conversion Cycle 2 objectives or completion by May 10, 2021. Furthermore, the data reconciliation process proposed by ICON is still pending finalization. The UAT environment penetration and vulnerability scan results are still pending remediation, which may delay the loading of Data Conversion Cycle 2 data.	2021.04.IT01.R1	Appoint a Dedicated Data Conversion Management Lead.	• Appoint a dedicated Data Conversion Management Lead to actively manage all aspects of the data conversion effort including coordination of LifeWorks, ICON, and EUTF data conversion activities. • Assign this lead the responsibility of providing weekly data conversion status reports with metrics that report on the status and health of data conversion activities. • Develop a formalized Data Conversion acceptance process for the remaining cycles with defined acceptance criteria.	Open	05/26/21: Data Conversion Cycle 2 nears completion but is experiencing data derivation challenges related to employee status. An additional LifeWorks project manager resource was added to support the coordination of data conversion activities. Segal has also communicated plans to add support to managing data conversion activities. The importance of coordinating data conversion work was evident again when Segment 2 UAT was delayed due to these issues with data conversion impacting the availability of the UAT environment. IV&V will continue to assess the management of data conversion activities.		
Security	2021.04.IT02	Issue	Moderate	Low	LifeWorks is not following their patch deployment and vulnerability management policies and procedures for remediation in the non-production environments.	LifeWorks's Vulnerability Management Program v1.09b outlines their practices to perform monthly network vulnerability and penetration scans. Based on the scans, system administrators schedule a time to fix vulnerabilities based on the overall risk rating with critical and high risks addressed as quickly as possible in an ad-hoc fashion. The initial vulnerability and penetration test scans were completed on March 4, 2021, and MS drafted a Security Assessment Report which included recommended remediations. LifeWorks has subsequently missed multiple dates to complete remediation with the original target date of March 24, 2021.	2021.04.IT02.R1	LifeWorks align project practices with their patch deployment and vulnerability management policies and procedures.	When the project is unable to follow their vulnerability management policies and procedures, LifeWorks should follow standard risk management best practices including client escalation and risk acceptance processes.	Open	05/26/21: Accuity decreased the severity rating from Level 2 (Moderate) to Level 1 (Low) as LifeWorks worked diligently to address security concerns and is now following their patch and vulnerability management policies and procedures. Interim remediation controls were put in place, and full vulnerability remediation is scheduled for completion by August 2021. Bi-monthly technical meetings have been implemented to discuss security concerns on a more regular basis. IV&V will continue to monitor compliance to LifeWorks' security policies and procedures.		
Cost, Schedule, and Resource Management	2021.02.PM01	Risk	Moderate	Moderate	Current schedule delays may impact the overall project timeline.	LifeWorks has schedule management processes in place to report and track schedule variances. Furthermore, the project already proactively identified and actively reports on project risks related to the pace of intervals, insufficient time, and resources available to build and configure all EUTF requirements, and concern that complex functions and features are not being built early enough to allow for sufficient testing and quality reviews. However, even with these schedule management processes in place, the project continues to experience delays which may impact the overall project timeline and rigid Go-Live date of February 1, 2022: • The project is experiencing some delays including build and configuration for Interval 4, data conversion, environment set up, and LifeWorks Segment 1 testing. • Requirements tagged to specific intervals continue to be deferred to later intervals. Although the deferral of project requirements were expected in earlier intervals as LifeWorks gained a clearer understanding of EUTF needs and expectations, requirements tagged to Interval 4 continue to be tagged to later intervals. • The RTM requirements related to reports, communications, data interfaces, and workflows have not been fully identified and assigned to intervals so the level of effort for the overall schedule cannot be planned at this time. • Data conversion for certain records continues to be delayed due to the complexity of the billing data and reliance on the current EUTF BAS Vendor to assist with extraction and correction to data extracts; and need for EUTF resources to map and resolve data extraction issues. Greater attention and rigor to schedule delays is needed to ensure that schedule delays do not impact the overall project timeline and success of the project.	2021.02.PM01.R1	Increase schedule management control activities.	• Increase the rigor related to task and schedule delays including root cause analysis, discussions of mitigation plans, and reviews of mitigation tasks effectiveness to ensure schedule delays are timely addressed. • Regularly reassess and readjust the project schedule estimates and assumptions. • Consider all options for mitigating risk including adding resources, performing work in parallel, redistributing work in future development intervals, and reprioritizing remaining work.	Open	03/23/21: LifeWorks made some progress in addressing certain project delays and trying to move up requirements earlier to address risks related to the pace of intervals and balance of functionality. However, other activities are slipping including training and testing activities for Segment 2. It is too early to determine if requirements tagged to Interval 5 will be completed as planned or if a significant number will need to be deferred. More formalized processes need to be performed to ensure schedule delays are timely identified and addressed. 04/27/21: LifeWorks has begun to make improvements in schedule management; however, the project continues to have numerous delays outlined in the April 2021 IV&V Monthly Status and Milestone Report. For the delay of XpertDoc, LifeWorks presented a mitigation plan including adding three additional QA resources to get back on track for Interval 5 and Segment 2 UAT. LifeWorks has begun to highlight late activities in the weekly status report. More formalized schedule management control activities are still needed across project workstreams. 05/26/21: Despite additional resources added for QA, configuration, and project management, the project has continued schedule delays in data conversion, testing, interval demonstrations, deferred requirements, and carrier interfaces. LifeWorks should work to understand why delays continue to occur despite more resources being added. IV&V will continue to assess these schedule management control activities.		

ASSESSMENT CATEGORY	FINDING ID	TYPE	ORIGINAL SEVERITY	CURRENT SEVERITY	FINDING	ANALYSIS	RECOMMENDATION ID	RECOMMENDATION	SUPPLEMENTAL RECOMMENDATION	FINDING STATUS	FINDING STATUS UPDATE	CLOSED DATE	CLOSURE REASON
Quality Management and Testing	2021.01.IT01	Risk	Moderate	Moderate	Insufficient testing and quality processes may impact the effectiveness of system demonstrations, and client confidence and satisfaction.	Periodic system demonstrations are one method for LifeWorks to share what functionality has been completed during the current interval. The requirements being demonstrated should be completely configured, tested, documented, and reviewed in advance of the system demonstration. If done successfully, system demonstrations not only help verify requirements and design, but also build confidence and customer satisfaction. The following problems were observed with the system demonstrations: • Interval 1 and 2 functionalities were demonstrated through a combination of slideshows and live system walkthroughs. Based on feedback received from EUTF, Interval 3 functionalities were demonstrated in the live system; however, there were multiple system errors and problems with prepared sample transactions and data. • Inability to show completeness of configuration to meet 100% of completed interval requirements. • Testing and quality processes did not identify the issues encountered during the system demonstrations. • Lack of a formal process to record incidents and problems during the demonstration, identify root causes, and track their resolution. • The inability to clearly track issues to resolution in a timely manner may negatively impact client confidence.	2021.01.IT01.R1	Evaluate testing and quality processes.	• Use quality assurances processes to analyze results and issues to identify the root cause, improve tracking of issues to system functionality/requirements, make appropriate corrective actions, and record lessons learned. • LifeWorks should review the demonstration results including anomalies encountered and identify follow-up actions. • The project team should conduct a project retrospective after each interval demonstration to facilitate practical steps for improvement and promote improved stakeholder buy-in and confidence.	Open	02/23/21 and 03/23/21: LifeWorks discussed the challenges associated with the system demonstrations at the February and March Steering Committee meetings. A more formalized analysis needs to be conducted to identify the root causes and track the issues to ensure appropriate corrective actions are taken. The risk has been added to the project risk log for tracking and monitoring. 04/27/21 and 05/26/21: LifeWorks started to capture follow-up items and issues in a log to facilitate the tracking and resolution of items. Although the project is doing a better job of tracking items to be redemonstrated, the root causes are not being identified to prevent future errors or challenges. IV&V will continue to assess quality management and testing processes.		
System Software, Hardware, and Integrations	2020.11.IT01	Positive	N/A	N/A	The LifeWorks technology team's flexibility and collaboration demonstrates their commitment to be a trusted partner to EUTF to build a robust solution that fits EUTF requirements.	The LifeWorks technology team: • Works collaboratively with EUTF to understand the technical requirements, answer questions, and adjust the solution to find the best fit for EUTF • Demonstrates a willingness to be transparent and openly share LifeWorks's IT practices, policies, standards, and personnel roles and responsibilities to develop, maintain, secure, operate, and support the system • Provides documentation and ongoing clarification of the Ariel BAS solution's infrastructure, security, and disaster recovery architecture • Through the involvement of key IT resources, shows commitment to the overall success of the project and being a trusted partner with the State of Hawaii This approach has helped EUTF gain comfort with the LifeWorks-managed Azure environment and how the solution aligns with EUTF's security, availability, system operations, and confidentiality requirements.	N/A	N/A for positive findings.	N/A for positive findings.	Closed	N/A	12/22/2020	Closed as this is a positive finding.
Project Organization and Management	2020.08.PM01	Risk	Low	Low	The COVID-19 pandemic may impact project schedule, resources, and costs.	The COVID-19 pandemic creates uncertainty with rapidly evolving government responses and restrictions and changing circumstances. The following a summary of the related events and facts: • A second stay-at-home/work-at-home order went into effect August 27, 2020 for Honolulu City and County and will last for at least 14 days. EUTF employees are deemed essential. All key EUTF project employees will have the ability and equipment to work from home in the event of an office closure by the end of September. All project contractors already work remotely effectively. • The State is reviewing budgets and positions to make significant changes due to anticipated revenue shortfalls. The State also implemented a hiring freeze and is contemplating furloughs or salary cuts for State workers. • EUTF has several open positions that could play essential roles on the project. EUTF's request to fill these positions is pending. • The project timeline and go-live dates do not have much room to be extended due to the annual benefit plan enrollment season. Any delays that postpone go-live beyond the enrollment season could impact project costs.	2020.08.PM01.R1	Formulate processes for how to respond to COVID-19 impacts to the project.	• EUTF, project contractors, and subcontractors should timely complete a back-up resources matrix including a list of key project resources, their key primary functions, and potential backup resources in case of their inability to work. • Assess COVID-19 direct and indirect impacts to the project and prepare contingency plans for possible scenarios. • Ensure all key EUTF project team members have the necessary access, equipment, and technology to work remotely effectively.	Closed	9/25/20: The COVID-19 finding has been partially mitigated by ensuring all key EUTF project team members have computers and access to work remotely and additional headcount approved to support the project and operations. Project tools and practices such as a joint project SharePoint site and regular, recurring meetings also help the teams work effectively together from remote locations. The project contractors agreed to develop back-up resource matrices. 10/27/20: EUTF, LifeWorks, Segal, and ICON worked together to identify back-up resources for each key project team member to ensure resource continuity.	10/27/2020	Closed as all recommendations were adequately addressed. A COVID-19 risk has been added to the project's risk log so direct and indirect COVID-19 related impacts will be continuously assessed.

ASSESSMENT CATEGORY	FINDING ID	TYPE	ORIGINAL SEVERITY	CURRENT SEVERITY	FINDING	ANALYSIS	RECOMMENDATION ID	RECOMMENDATION	SUPPLEMENTAL RECOMMENDATION	FINDING STATUS	FINDING STATUS UPDATE	CLOSED DATE	CLOSURE REASON
Project Organization and Management	2020.07.PM02	Risk	Moderate	Moderate	Segal's contract contains responsibilities and deliverables beyond oversight of LifeWorks, including OCM, BPR, and quality management. Segal's project deliverables, schedule, and processes have yet to be formally documented and scheduled, which could impact the execution of Segal, ICON, and EUTF responsibilities and activities.	Segal was contracted to provide various project management, OCM, BPR, data conversion, and quality management services for EUTF. Segal is effectively monitoring and reviewing LifeWorks activities and deliverables but does not yet have a schedule for ICON's and their own independent deliverables for this project. Segal established a dashboard and regularly submits reports to EUTF; however, thus far, these reports focus mainly on LifeWorks and do not include sufficient updates regarding Segal and ICON's own activities, progress, and risks. Additionally, Segal's processes in the areas of schedule, resource, cost, and quality management are still being developed and documented. Segal's deliverables include a BPR and OCM plan. Segal prepared a presentation, developed a tracking tool, and held a workshop to explain their BPR and OCM methodology, however, we are not aware of whether a formally documented plan or schedule of BPR and OCM tasks and resources has been prepared and delivered to EUTF for review. Further discussion of purpose and expectations for this deliverable is still needed. ICON is responsible for data cleansing and data conversion activities. The project team identified two risks and one issue and are experiencing some delays related to data conversion. Clarifying ICON deliverables, schedule, processes, and reporting may help to prevent further issues and delays. Possible root causes or contributing factors are an aggressive project pace and competing priorities. Both the Segal Project Manager and the EUTF Project Manager are extremely hard-working and may not have adequate time to participate in on-going Discovery Sessions and perform all of the required project management tasks. EUTF and Segal will need to work together to establish appropriate project management processes and clarify the priority of deliverables and schedules. Although this finding is reported under the Project Organization and Management IV&V Assessment Category, this finding also impacts the criticality ratings for the Cost, Schedule, and Resource Management; OCM; BPR; Data Conversion; and Quality Management and Testing categories.	2020.07.PM02.R1	Clarify Segal and ICON deliverables.	• Clarify purpose, content, and expectations of each of the contracted deliverables. •Consider whether contracted deliverables still make sense based on project needs.	Closed	08/25/20: Segal and ICON made good progress on clarifying deliverables and project activities related to their responsibilities. EUTF, Segal, and IV&V started monthly check-in meetings and discussed Segal's "just-in-time" approach to OCM and BPR. The EUTF PM confirmed approval of this approach with preliminary activities occurring before OCM and BPR plans are formalized. ICON clarified their Data Quality Check Point (DQCP) process and preliminary results from defined business rules. Accuity closed recommendation 2020.07.PM02.R1 as IV&V received sufficient clarification of Segal and ICON deliverables. Segal provided a deliverables schedule and ICON provided a work plan tracking the status of tasks. Segal provided a high level deliverable project schedule with duration, status, start and finish dates, and resources. The specific resources and tasks were not identified for key activities such as OCM and BPR; however, Segal noted that they would develop more detailed plans based on resource availability and bandwidth starting in December 2020. Other EUTF tasks are currently tracked in the RTM, Segal's Dashboard, and independently by EUTF project team members. Accuity closed recommendation 2020.07.PM02.R2 as IV&V received sufficient clarification of Segal and ICON's schedules for this stage of the project. More clarity was provided for key processes on OCM, quality, data validation, and migration. Segal delivered a draft Quality Management Plan on 8/25/20 and scheduled a test planning meeting in September. ICON held a meeting to review their DQCP process and provided a high level DQCP Validation Consolidation process summary. Accuity will continue to evaluate the formalization of processes including BPR and quality management. 09/25/20: Quality processes and metrics are well-defined and communicated through the draft Quality Management Plan. BPR activities continued through meetings, Fit Gap sessions, and solution demonstrations. Data migration and cleansing processes were more clearly defined through the draft Data Migration Plan, weekly data conversion meetings and DQCP / Validation meetings.	9/25/2020	Closed as the Segal and ICON deliverables, activities and schedules have been clarified and approved by EUTF. In addition, key processes were defined and communicated through meetings, plans and metrics. Segal and ICON's status and activities are included in reports to the Joint Steering Committee.
							2020.07.PM02.R2	Develop a project schedule to manage Segal, ICON, and EUTF tasks.	•Provide the appropriate detail of tasks, durations, due dates, milestones, and deliverables for various parties.				
							2020.07.PM02.R3	Develop and clarify Segal, ICON, and EUTF processes.	• Key processes include resource and schedule management, cost management, BPR, OCM, quality management, data cleansing, and data conversion. • Consider including Segal, ICON, and EUTF's status and metrics in existing reports and dashboards. • Consider including Segal, ICON, and EUTF status and activities in recurring project management meetings to promote even greater project cohesion.				
Project Organization and Management	2020.07.PM01	Positive	N/A	N/A	The project team continues to work collaboratively and support a culture of open communication and continuous improvement amongst all parties.	The project team members have: • Encouraged EUTF SMEs to openly discuss areas of confusion and request for improvements to working sessions. • Listened to feedback from project team members and timely implemented improvements to project processes (e.g., including incorporating solution demonstrations and introducing project team members). • Openly discussed possible solutions to address areas of concern. • Continue to proactively ask for feedback after meetings and working sessions. • Openly discussed project risks and issues with all project team members. This approach has helped team members to build a high level of comfort with each other and has contributed to a smoother execution of the planning phase of the project.	N/A	N/A for positive findings.	N/A for positive findings.	Closed	N/A	8/25/2020	Closed as this is a positive finding.

Appendix F: Comment Log on Draft Report

Appendix F: Comment Log on Draft Report

Hawaii EUTF BAS Project: IV&V Document Comment Log				
ID #	**Page #**	**Comment**	**Commenter's Organization**	**Accuity Resolution**
1		No Hawaii EUTF or ETS Comments.		
2				
3				
4				
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9				
10				

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