OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

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ETS.HAWAII.GOV

December 28, 2020

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

The Honorable Scott K. Saiki,
    Speaker, and
    Members of The House of Representatives
Twenty-Ninth 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 (Dec 29, 2020 14:59 HST)

DOUGLAS MURDOCK
Chief Information Officer
State of Hawai'i

Attachment (1)

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

MONTHLY IV&V STATUS REPORT

November 25, 2020 | Version 1.0

REPORT FINALIZED

December 14, 2020

ACCUITY

An independent member of
bakertilly
INTERNATIONAL

Table of Contents

Document History

DATE	DESCRIPTION	AUTHOR	VERSION
12/04/20	Monthly IV&V Status Report Draft created	Julia Okinaka	0.0
12/14/20	Monthly IV&V Status Report finalized with no changes. 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 (Morneau Shepell) with their Ariel EAS technology solution for the Health Benefits Administration System Modernization Project (BAS Project) on June 1, 2020. 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. Pre and Post Go-Live Implementation Milestone Reports will be issued prior to and after the deployment/completion of major project milestones.

The project has almost completed the build and configuration for Interval 2 and started planning for Interval 3. The focus of our IV&V activities for this report included the conclusion of a two-month evaluation of system software, integrations, and security and the review of project governance and risk management.

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 25, 2020. 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.

LISTENING & PARTNERSHIP

"Listening to others viewpoints may reveal the one thing needed to complete your goals."

- D. Ridgley

ACCUITY

PROJECT ASSESSMENT

AS OF NOVEMBER 25, 2020

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**
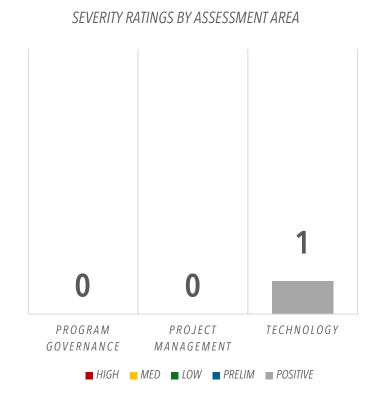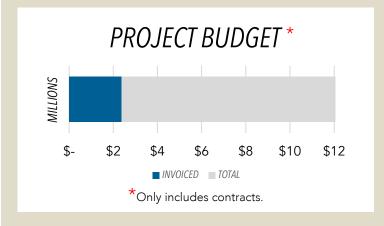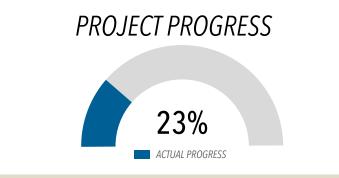
PROJECT MANAGEMENT — **G**

TECHNOLOGY — **G**

CRITICALITY RATINGS

R HIGH   **Y** MEDIUM   **G** LOW   **NA** N/A

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1 OPEN FINDING

SEVERITY RATINGS BY ASSESSMENT AREA

PROGRAM GOVERNANCE	PROJECT MANAGEMENT	TECHNOLOGY
0	0	1

■ HIGH ■ MED ■ LOW ■ PRELIM ■ POSITIVE

---

0 OPEN RECOMMENDATIONS

PROJECT BUDGET *

MILLIONS

$- $2 $4 $6 $8 $10 $12

■ INVOICED ■ TOTAL

*Only includes contracts.

PROJECT PROGRESS

23%

■ ACTUAL PROGRESS

PROJECT TIMELINE**

■ ORIGINAL ■ ACTUAL ▨ REVISED ■ DELAYED

PHASE 1: PROJ PLANNING

PHASE 2: FIT/GAP & DESIGN FOR GAPS

PHASE 3: PURCHASE AND INSTALLATION OF HARDWARE & SOFTWARE

PHASE 4: SYSTEM BUILD, CONFIGURATION, READINESS, & ROLLOUT

PHASE 5: READINESS & ROLLOUT

✹ FEB 1, 2022 GO-LIVE

JUN 2020	DEC 2020	JUN 2021	DEC 2021

**Revised project schedule approved by EUTF.

ASSESSMENT AREA & RATINGS SUMMARY

SEPT	OCT	NOV	IV&V ASSESSMENT AREA	IV&V OBSERVATIONS
G	G	G	*Overall*	The overall project rating reflects the project team's ability to work cohesively and effectively in a fast-paced, demanding environment. The criticality rating for 14 IV&V Assessment Categories are solid green with one IV&V Assessment Category related to schedule management reflecting a downward green arrow. Project Schedule: The project is generally on schedule, but the project continues to have slight delays in deliverables, data conversion, and interval activities. There is currently no impact to the overall timeline, but it is important to actively communicate and establish revised due dates to prevent further delays. Project Costs: Project contract costs invoiced to-date approximated $2,366,800 and are within the budget. Quality: Quality metrics indicate expected project performance except for slight delays in the project schedule. IV&V will continue to monitor as more metrics become applicable.
G	G	G	*Program Governance*	Project governance is working effectively. The Joint Steering Committee (JSC) convened and the EUTF Project Sponsor and Morneau Shepell Executive Sponsor have a recurring monthly meeting to discuss project risks and issues.
G	G	G	*Project Management*	The EUTF, Segal, and Morneau Shepell Project Managers continue to effectively coordinate activities, share information, and mitigate project risks. Risks are tracked and openly discussed in project meetings and appropriately escalated to project management. Build and Configure activities for Interval 2 are 90% complete with 42 requirements completed. To ensure the project stays on schedule, the project team is working together to move up additional and more complex requirements to earlier intervals. The overall revised interval delivery plan is expected in early December 2020. The project team held two Employer Meetings this month to provide a project update, confirm project requirements in preparation for employer portal and interface design sessions, and discuss the impact of the member portal on benefits processing.
G	G	G	*Technology*	Morneau Shepell's technology team has extended notable effort to be flexible and collaborative. The technology team has shown strong partnership and flexibility in understanding EUTF's technical requirements and adjusting the solution to find the best fit for EUTF considering future business needs and operations (refer to finding 2020.11.IT01). Morneau Shepell held two comprehensive review sessions of the Ariel EAS BAS Architecture Overview document to communicate the infrastructure, security, and disaster recovery architecture in the Morneau Shepell-managed Azure environment. Morneau Shepell also provided security documentation, integration catalogue, environment definitions, key security policies and standards, and 2019 Ariel SOC 2 Reports to document the solution's compliance and share the security controls built-in to this solution. This transparency is adding great value to help the project align to EUTF's security, availability, system operations, and confidentiality requirements. These technical artifacts are still pending review and approval by EUTF.

FINDINGS AND RECOMMENDATIONS BY ASSESSMENT AREA

G **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 14 IV&V Assessment Categories are a solid green as a result of the project team's ability to work cohesively and effectively in a fast-paced, demanding environment. One IV&V Assessment Area related to schedule management reflects a downward green arrow due to delays in deliverables, data conversion, and interval 2 activities.

SEPT	OCT	NOV	PROGRAM GOVERNANCE
G	G	G	Governance Effectiveness
G	G	G	Benefits Realization

SEPT	OCT	NOV	TECHNOLOGY
G	G	G	System Software, Hardware, and Integrations
G	G	G	Data Conversion
G	G	G	Quality Management and Testing
G	G	G	Configuration Management
G	G	G	Security
NA	NA	NA	Deployment and Operations

SEPT	OCT	NOV	PROJECT MANAGEMENT
G	G	G	Project Organization and Management
G	G	G	Requirements Management
G	G	G (arrow)	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)
NA	G	G	Training and Knowledge Transfer

(G) PROGRAM GOVERNANCE

SEPT	OCT	NOV	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	G	G	Governance Effectiveness	Project governance is working effectively. The Joint Steering Committee (JSC) convened and the EUTF and Morneau Shepell Project and Executive Sponsors confirmed the effectiveness of the JSC meetings. The EUTF and Morneau Shepell Sponsors also have a recurring monthly meeting to discuss project risks and issues.	0	0	0
G	G	G	Benefits Realization	Project and quality metrics indicate expected project performance except for slight delays in the project schedule. IV&V will continue to monitor as more metrics become applicable to the phase of the project.	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

(G) PROJECT MANAGEMENT

SEPT	OCT	NOV	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	G	G	Project Organization and Management	The EUTF, Segal, and Morneau Shepell Project Managers continue to effectively coordinate activities, share information, and mitigate project risks. The Project Managers collaborated to plan and present to EUTF Employers as one consolidated team, and continue to plan and prepare for ongoing, future employer meetings. The project team continues to jointly contribute to project deliverables and exercise positive project practices.	0	0	3
G	G	G	Requirements Management	Build and Configure activities for Interval 2 is 90% complete with 42 requirements completed. The project team is working together to redistribute requirements to earlier intervals, including increasing the number of requirements to be addressed in Interval 3 by 58 additional requirements. To ensure the project stays on schedule, the project team is working together to move up additional and more complex requirements to earlier intervals. The overall revised interval delivery plan is expected in early December 2020.	0	0	0
G	G	⬇G	Cost, Schedule, and Resource Management	Project contract costs invoiced to-date approximated $2,366,800 and are within the budget. The project is generally on schedule, but the project continues to have slight delays in deliverables, data conversion, and interval activities. There is currently no impact to the overall timeline, but it is important to actively communicate and establish revised due dates to prevent further delays.	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

SEPT	OCT	NOV	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	G	G	Risk Management	New and existing risks and issues are tracked and openly discussed in project meetings and appropriately escalated to project management. Risks and issues continue to be evaluated for appropriate impact ratings, likelihood ratings, and risk response activities.	0	0	0
G	G	G	Communications Management	The project team held two Employer Meetings this month to provide a project update, confirm project requirements in preparation for employer portal and interface design sessions, and discuss the impact of the member portal on benefits processing. For internal project communications, recurring project meetings are held for data conversion, requirements acceptance criteria, joint stand-up meetings, technical, etc. to increase the effectiveness of remote teams.	0	0	0
G	G	G	Organizational Change Management (OCM)	The Employer Meetings provide additional insight to assist with the future communications and OCM focused activities. Segal will deliver an OCM Plan by the end of January 2021.	0	0	0
G	G	G	Business Process Reengineering (BPR)	Segal held a BPR meeting with EUTF managers to discuss how to review, assess, and validate requirements and process steps. Segal will deliver a BPR Plan by the end of January 2021.	0	0	0
NA	G	G	Training and Knowledge Transfer	No significant changes for training and knowledge transfer to report since last month. Morneau Shepell will deliver a draft Training Strategy document in December 2020 in preparation for UAT activities early next year. IV&V will evaluate training in upcoming months.	0	0	0

ACCUITY

TECHNOLOGY

System Software,
Hardware, and
Integrations

Data Conversion

Quality Management
and Testing

Configuration
Management

Security

Deployment and
Operations

(G) **TECHNOLOGY**

SEPT	OCT	NOV	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	G	G	System Software, Hardware, and Integrations	The technology team has shown strong partnership and flexibility in understanding EUTF's technical requirements and adjusting the solution to find the best fit for EUTF considering future business needs and operations (refer to finding 2020.11.IT01). Morneau Shepell held two comprehensive review sessions of the Ariel EAS BAS Architecture Overview document to communicate the infrastructure, security, and disaster recovery architecture in the Morneau Shepell-managed Azure environment. Morneau Shepell also provided security documentation, integration catalogue, environment definitions, key security policies and standards, and 2019 Ariel SOC 2 Reports to document the solution's compliance and share the security controls built-in to this solution. This transparency is adding great value to help the project align to EUTF's security, availability, system operations, and confidentiality requirements. These technical artifacts are still pending review and approval by EUTF. The first monthly, recurring technical meeting convened in November with Morneau Shepell providing an overview of the Microsoft Azure IT environments and technical deliverables.	1	1	0
G	G	G	Data Conversion	The Data Migration Strategy Plan was further refined and is pending finalization. Data conversion and quality activities are mostly on track, with the exception of billing conversion activities due to reliance on the previous BAS vendor. EUTF, Morneau Shepell, and ICON continue to meet weekly to perform and clarify activities related to data groups, layouts, extracts, mapping, and data quality scripts/reports.	0	0	0

System Software,
Hardware, and
Integrations

Data Conversion

Quality Management
and Testing

Configuration
Management

Security

Deployment and
Operations

SEPT	OCT	NOV	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	G	G	Quality Management and Testing	Quality metrics indicate expected project performance. Data quality tools continue to be developed and refined with ICON, Morneau Shepell, and EUTF. Morneau Shepell's quality testing resources almost completed their validation of requirements for Interval 2. Weekly meetings to develop and refine acceptance criteria continued this month.	0	0	0
G	G	G	Configuration Management	No significant changes for configuration management to report since last month.	0	0	0
G	G	G	Security	Morneau Shepell provided security documentation, integration catalogue, environment definitions, key security policies and standards, and 2019 Ariel SOC 2 Reports to document the solution's compliance and share the security controls built-in to this solution. This transparency is adding great value to aligning to EUTF's security, availability, system operations, and confidentiality requirements. These technical artifacts are still pending review and approval by EUTF.	0	0	0
NA	NA	NA	Deployment and Operations	Deployment activities are not occurring at this stage of the project.	0	0	0

ACCUITY

System Software,
Hardware, and
Integrations

Data Conversion

Quality Management
and Testing

Configuration
Management

Security

Deployment and
Operations

FINDING #: **2020.11.IT01**	STATUS: **OPEN**	TYPE: **POSITIVE**	SEVERITY: **N/A**

TITLE: **TECHNOLOGY TEAM DEMONSTRATES COMMITMENT TO BE A TRUSTED PARTNER**

Finding: POSITIVE – The Morneau Shepell 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.

Industry Standards and Best Practices: N/A

Analysis: The Morneau Shepell 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 Morneau Shepell'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 Morneau Shepell-managed Azure environment and how the solution aligns with EUTF's security, availability, system operations, and confidentiality requirements.

Recommendation: N/A for positive findings.

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.
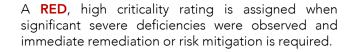
TERMS

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.

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.
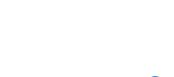
TERMS

POSITIVE
Celebrates high performance or project successes.

⎯⎯⎯⎯⎯⎯⎯

PRELIMINARY CONCERN
Potential risk requiring further analysis.

1   **SEVERITY 1:** High/Critical level

2   **SEVERITY 2:** Moderate level

3   **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
Conducted several working sessions to review Morneau Shepell's Architecture Overview document and preliminary State of Hawaii ETS Security Framework Guidance with EUTF SMEs
Reviewed Data Migration Strategy and Morneau Shepell security and policy documentation
Conducted stakeholder interviews
Participated in Hawaii EUTF project management, acceptance criteria, data conversion, and Fit/Gap Sessions
Presented at Hawaii EUTF Joint Steering Committee Meetings
Finalized October Monthly IV&V Status Report and submitted Draft November 2020 Monthly IV&V Status Report

KEY UPCOMING IV&V DELIVERABLES

KEY IV&V DELIVERABLES	DRAFT DUE DATE	DRAFT SUBMITTED	FINAL SUBMITTED
November 2020 Monthly IV&V Status Report	12/04/20	12/04/20	-

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
October 2020 Monthly IV&V Status Report	10/27/20	11/25/20

Appendix D: Interviews, Meetings, and Documents

INTERVIEWS

DATE	INTERVIEWEE
11/17/20	EUTF Administrator, Project Sponsor
11/20/20	EUTF Member Services Branch Manager

MEETINGS

DATE	MEETING DESCRIPTION
10/28/20	EUTF - Fit/Gap Session 6, Day 2
10/29/20	EUTF - Fit/Gap Session 6, Day 3
10/29/20	EUTF - Joint Stand-up Meeting
10/30/20	EUTF - Fit/Gap Session 6, Day 4
11/02/20	EUTF/ICON/MS Data Conversion Weekly Meeting
11/02/20	EUTF BAS - ETS Security Controls Guidance Starting Point
11/02/20	ETS Meeting Preparation
11/04/20	EUTF - Joint Weekly Project Team Meeting
11/05/20	EUTF - Employer Meeting Preparation
11/06/20	EUTF - Monthly Technical Meeting
11/09/20	EUTF/ICON/MS Data Conversion Weekly Meeting
11/09/20	EUTF - Fit/Gap Session 4, Day 1 (continued)

MEETINGS (CONTINUED)

DATE	MEETING DESCRIPTION
11/09/20	November IV&V Update meeting
11/09/20	Requirements Acceptance Criteria
11/09/20	EUTF - Joint Weekly Project Team Meeting
11/10/20	EUTF - Fit/Gap Session 7, Day 1
11/11/20	Configuration Management and Project Schedule
11/12/20	EUTF - Fit/Gap Session 7, Day 2 (Part 1)
11/12/20	EUTF - BAS Joint Monthly Steering Committee Meeting
11/12/20	EUTF - Fit/Gap Session 7, Day 2 (Part 2)
11/12/20	EUTF - Joint Stand-up Meeting
11/13/20	EUTF - Fit/Gap Session 7, Day 3
11/16/20	EUTF/ICON/MS Data Conversion Weekly Meeting
11/16/20	EUTF - Joint Weekly Project Team Meeting
11/17/20	EUTF - Fit/Gap Session 7, Day 4
11/17/20	Requirements Acceptance Criteria
11/18/20	EUTF New BAS Employer Portal - Meeting with Counties and Board/Department of Water Supply
11/18/20	BPR Next Steps
11/19/20	EUTF - Ariel EAS BAS Architecture Overview Document Review
11/19/20	EUTF New BAS Employer Portal - Meeting with State Employers
11/20/20	EUTF - Joint Stand-up Meeting

MEETINGS (CONTINUED)

DATE	MEETING DESCRIPTION
11/20/20	EUTF BAS - ETS Security Controls Guidance Follow-up Meeting
11/23/20	EUTF - Ariel EAS BAS Architecture Overview Document Review (Continued)
11/23/20	Requirements Acceptance Criteria
11/23/20	EUTF - Joint Weekly Project Team Meeting

DOCUMENTS

TYPE	DOCUMENT
Morneau Shepell Proposal	EUTF BAS RFP 20-002- Morneau Shepell BAFO Response to BAS 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)
Governance	EUTF – Joint SC (Steering Committee) Meeting – 2020-11-12
Project Management	Hawaii EUTF Morneau Shepell Project Kick-Off – FINAL (06/04/20)
Project Management	EUTF – Weekly Project Team Status – 2020-11-04
Project Management	EUTF – Weekly Project Team Status – 2020-11-09

DOCUMENTS (CONTINUED)

TYPE	DOCUMENT
Project Management	EUTF – Weekly Project Team Status – 2020-11-09
Project Management	EUTF – Weekly Project Team Status – 2020-11-16
Project Management	EUTF – Weekly Project Team Status – 2020-11-23
Project Management	20201031 Segal Monthly Status Report
Project Management	20201030 Segal EUTF Status Report
Project Management	20201109 Segal EUTF Status Report
Project Management	20201116 Segal EUTF Status Report
Project Management	20201123 Segal EUTF Status Report
Project Management	Hawaii EUTF_ICON Status Report – Week Ending 10 30 2020
Project Management	Hawaii EUTF_ICON Status Report – Week Ending 11 06 2020
Project Management	Hawaii EUTF_ICON Status Report – Week Ending 11 13 2020
Project Management	Hawaii EUTF_ICON Status Report – Week Ending 11 20 2020
Risk and Issues	EUTF – CRAID Log
Schedule	Hawaii (EUTF) – BAS Work Plan
Schedule	EUTF Data Quality – Migration Project Plan V11
Discovery Session	EUTF – Client RTM
Deliverable	Hawaii EUTF – BAS Implementation - Charter, Scope and Management Plan
Deliverable	EUTF - Data Migration Strategy Plan
Deliverable	EUTF – BAS DED Solution Architecture Documents 20201002

DOCUMENTS (CONTINUED)

TYPE	DOCUMENT
Deliverable	Ariel EAS BAS Architecture Overview
Deliverable	Ariel EAS Security Plan – EUTF
Deliverable	EUTF Interface Catalog
Deliverable	Environment Definition - EUTF
Security	2019 Ariel SOC 2 Final Report
Security	Acceptance Use Policy
Security	Data Classification Policy
Security	Encryption Policy
Security	Information Security Policy and Standards
Security	Password Policy
Security	Patch_Deployment_Process_v1.16-EN
Security	Vulnerability Management_v1.09b

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	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, Morneau Shepell, 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.
Project Organization and Management	2020.07.PM02	Risk	Moderate	Moderate	Segal's contract contains responsibilities and deliverables beyond oversight of Morneau Shepell, including OCM, BPR, data conversion, 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 Morneau Shepell 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 Morneau Shepell 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 coversion 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

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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				
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