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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)



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 REPORT

October 27, 2020 | Version 1.0

REPORT FINALIZED

November 25, 2020



An independent member of  
**bakertilly**  
INTERNATIONAL



## *Table of Contents*

<b>EXECUTIVE SUMMARY</b>	<b>3</b>
Background	3
IV&V Dashboard	4
<b>FINDINGS AND RECOMMENDATIONS BY ASSESSMENT AREA</b>	<b>6</b>
Overall Rating	6
Program Governance	7
Project Management	8
Technology	11
Appendix A: IV&V Criticality and Severity Ratings	13
Appendix B: Industry Standards and Best Practices	15
Appendix C: IV&V Monthly Status	18
Appendix D: Interviews, Meetings, and Documents	19
Appendix E: Prior Findings Log	25
Appendix F: Comment Log on Draft Report	27

## Document History

DATE	DESCRIPTION	AUTHOR	VERSION
11/05/20	Monthly IV&V Status Report Draft created	Julia Okinaka	0.0
11/25/20	Monthly IV&V Status Report Final updated on pages 3, 5 and 8 to clarify IV&V focus areas and make changes based on comment 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 completed Interval 1 and started the planning, build, and configuration for Interval 2. The focus of our IV&V activities for this report included the start of a two-month evaluation of system software, integrations, and security and the review of configuration 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 October 27, 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.

#### WORKING TOGETHER

*"If you want to go  
fast, go **alone**.  
If you want to  
go **far**, go  
**together**."*

- African proverb

# PROJECT ASSESSMENT

AS OF OCTOBER 27, 2020

## SUMMARY RATINGS

### OVERALL RATING



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

### PROGRAM GOVERNANCE



### PROJECT MANAGEMENT



### TECHNOLOGY



### CRITICALITY RATINGS



HIGH



MEDIUM



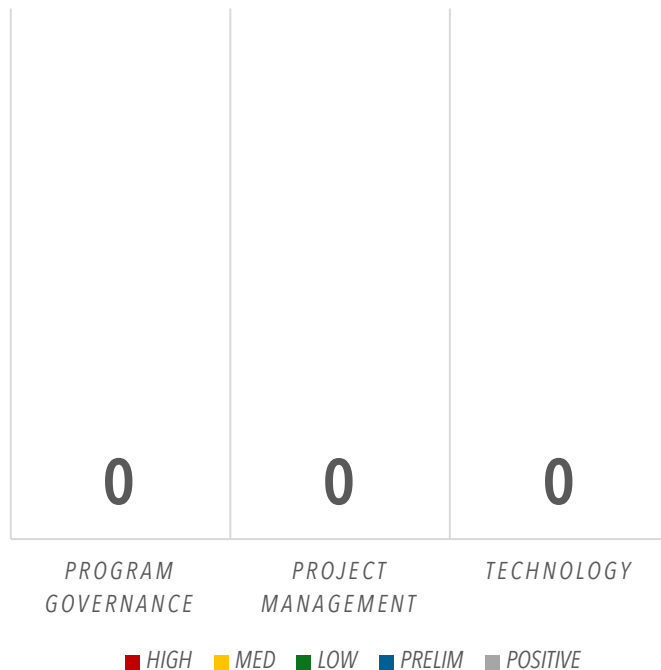
LOW



N/A

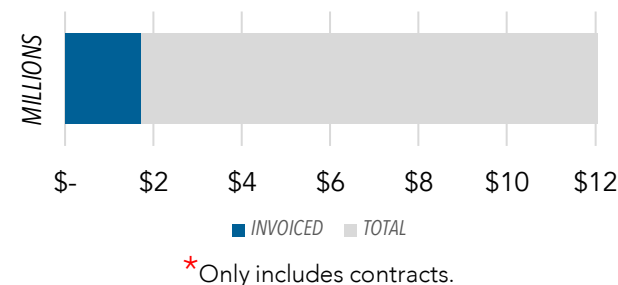
## 0 OPEN FINDINGS

### SEVERITY RATINGS BY ASSESSMENT AREA

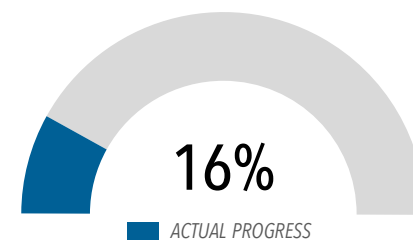


## 0 OPEN RECOMMENDATIONS

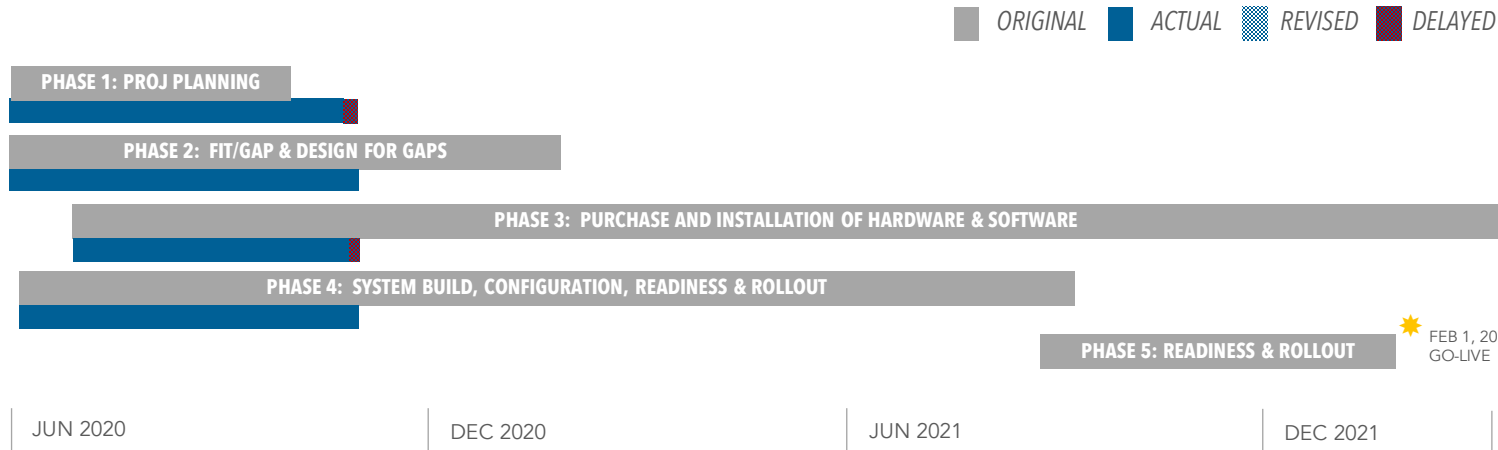
### PROJECT BUDGET\*



### PROJECT PROGRESS















### PROJECT TIMELINE\*\*



# ASSESSMENT AREA & RATINGS SUMMARY

AS OF OCTOBER 27, 2020

AUG SEPT OCT IV&V ASSESSMENT AREA IV&V OBSERVATIONS

			<i>Overall</i>	<p>The overall project rating reflects the project team's strong work ethic, close monitoring of risks, and continued collaboration. The criticality rating for 15 IV&amp;V Assessment Categories are solid green.</p> <p>Project Schedule: The project is generally on schedule. There are slight delays in underlying tasks and deliverables that do not impact the overall schedule.</p> <p>Project Costs: Project contract costs invoiced to-date approximated \$1,716,000 and are within the budget.</p> <p>Quality: Quality metrics are defined and the ones applicable to the project now are being tracked. IV&amp;V will continue to monitor as more metrics become applicable to the phase of the project.</p>
			<i>Program Governance</i>	<p>Project governance continues to work effectively. The project team reported to the Joint Steering Committee (JSC) and EUTF Board of Trustees to discuss project roles and responsibilities, schedule, status, and risks.</p>
			<i>Project Management</i>	<p>The EUTF, Segal, and Morneau Shepell Project Managers continue to work effectively together to maintain positive project momentum and synergy. Established project management processes are effective in managing project activities, resources, and risks. Build and Configure activities for Interval 1 finished in October, with 48 requirements completed and 20 deferred to later intervals. Morneau Shepell's development team is working on one gap identified between the original requirement and out-of-the-box functionality available in the Ariel solution. With the fast pace of intervals, the Project Managers are closely monitoring the interval metrics and timely developing mitigation plans to address potential schedule impacts of requirement deferrals and potential gaps. Project stakeholders are appropriately involved in requirements development, validation, and management processes. The requirements management tool was implemented and provides useful requirements documentation and traceability functionality. EUTF held its second All Staff Meeting to keep all EUTF staff abreast of project status, timeline, and Fit/Gap sessions.</p>
			<i>Technology</i>	<p>The project completed Interval 1 and started build and configuration for Interval 2. Morneau Shepell completed a draft, high level Ariel EAS BAS Architecture Overview pending EUTF's review. This Architecture Overview is a high-level design document that outlines the necessary Azure cloud environment components and services to address the security and technical requirements. Morneau Shepell plans to provide more detailed low-level security documentation and integration catalogue next month. EUTF will perform validation and review of technical requirements through testing, configuration reviews, and architecture documentation. Morneau Shepell has completed baseline set up for the Azure environments and has agreed to perform a review of the baseline configuration, and complete penetration tests and compliance scans of the environments. For configuration management, Morneau Shepell follows a structured process that progresses through requirements identification, configuration control, documentation, release management, quality assurance, and testing.</p>



# 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 15 IV&V Assessment Categories are a solid green as a result of strong project team collaboration and the establishment of key foundational project and quality management practices.

### AT-A-GLANCE

Maintain **POSTIVE PROJECT MOMENTUM** and **SYNERGY**

Continue strong **PROJECT MANAGEMENT PRACTICES**

Continue to closely **MONITOR PACE OF INTERVALS**

AUG	SEPT	OCT	PROGRAM GOVERNANCE
G	G	G	Governance Effectiveness
G	G	G	Benefits Realization
AUG	SEPT	OCT	TECHNOLOGY
G	G	G	System Software, Hardware, and Integrations
G↓	G	G	Data Conversion
G↓	G	G	Quality Management and Testing
NA	G	G	Configuration Management
G	G	G	Security
NA	NA	NA	Deployment and Operations

AUG	SEPT	OCT	PROJECT MANAGEMENT
G	G	G	Project Organization and Management
G	G	G	Requirements Management
G	G	G	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	NA	G	Training and Knowledge Transfer



## PROGRAM GOVERNANCE

Governance  
Effectiveness

Benefits Realization



## PROGRAM GOVERNANCE

AUG	SEPT	OCT	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	G	G	Governance Effectiveness	Project governance continues to work effectively. The project team reported to the Joint Steering Committee (JSC) and EUTF Board of Trustees to discuss project roles and responsibilities, schedule, status, and risks.	0	0	0
G	G	G	Benefits Realization	The project's critical success factors have been defined in the Project Charter, Scope and Management plan is pending finalization. Project metrics continue to be reported during weekly project management meetings. IV&V will continue to monitor as more metrics become applicable in the upcoming phases 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



## PROJECT MANAGEMENT

AUG	SEPT	OCT	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 make an effective team in managing project activities, resources, risks, and facilitating open communication to facilitate positive project momentum. The COVID-19 finding (2020.08.PM01) has been fully addressed and remains on the project's risk log for ongoing consideration.	0	0	3
G	G	G	Requirements Management	Build and Configure activities for Interval 1 finished in October, with 48 requirements completed and 20 deferred to later intervals. Morneau Shepell's development team is working on one gap identified between the original requirement and out-of-the-box functionality available in the Ariel solution. The project is following its mitigation strategy and assessing if additional and more complex requirements can be moved up to earlier intervals. Project stakeholders are appropriately involved in requirements development, validation, and management processes. The requirements management tool was implemented and provides useful requirements documentation and traceability functionality.	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

AUG	SEPT	OCT	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
G	G	G	Cost, Schedule, and Resource Management	Project contract costs invoiced to-date approximated \$1,716,000 and are within the budget. The project is generally on schedule. There are slight delays in underlying tasks and deliverables that do not impact the overall schedule.	0	0	0
G	G	G	Risk Management	Risks and issues continue to be logged, tracked, and discussed during weekly project meetings. The fast pace of intervals is an existing risk that is being closely monitored due to the concern that requirements may not be fully achievable based on resources, number of intervals, and duration. The Project Managers are closely monitoring the interval metrics and timely developing mitigation plans to address potential schedule impacts of requirement deferrals and potential gaps.	0	0	0
G	G	G	Communications Management	EUTF had its second All Staff Meeting since project commencement on October 1, 2020, keeping EUTF staff abreast of project status, timeline, and Fit/Gap sessions. Two meetings were conducted with the State of Hawaii Department of Human Resources Development (DHRD) to ask questions and obtain clarification on processing the Premium Conversion Plan (PCP) benefit option.	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

AUG	SEPT	OCT	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
			Organizational Change Management (OCM)	No significant changes for OCM to report since last month. Segal will deliver an OCM Plan by the end of January 2021.	0	0	0
			Business Process Reengineering (BPR)	During Fit/Gap sessions, possible process improvements and BPR opportunities are discussed and demonstrated. The project continues to foster a culture of continuous feedback and improvement in regular project meetings. Segal will deliver a BPR Plan by the end of January 2021.	0	0	0
			Training and Knowledge Transfer	Morneau Shepell's development team provided three documents this month which document the business rules, event rules, processes, and rates used to configure the EUTF BAS. These documents will continue to be updated with new components, functionality, and configuration to serve for training, knowledge transfer, and future operations.	0	0	0

## TECHNOLOGY

System Software,  
Hardware, and  
Integrations

Data Conversion

Quality Management  
and Testing

Configuration  
Management

Security

Deployment and  
Operations



## TECHNOLOGY

AUG	SEPT	OCT	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
			System Software, Hardware, and Integrations	The project completed Interval 1 and started build and configuration for Interval 2. Morneau Shepell completed a draft, high level Ariel EAS BAS Architecture Overview pending EUTF's review. This Architecture Overview is a high-level design document that outlines the necessary Azure cloud environment components and services to address the security and technical requirements. Morneau Shepell plans to provide more detailed low-level security documentation and integrations catalogue next month. EUTF will perform validation and review of technical requirements through testing, configuration reviews, and architecture documentation. Monthly technical meetings will commence in November and provide more visibility into this area.	0	0	0
			Data Conversion	The Data Migration Strategy Plan is pending finalization. There are slight delays in billing conversion activities that do not impact the overall schedule. 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
			Quality Management and Testing	The Quality Management Plan was further refined with quality metrics and has been completed. Quality metrics are defined and the ones applicable to the project now are being tracked. Morneau Shepell's quality testing resources completed their validation of requirements for Interval 1 and have begun requirements validation for Interval 2. Weekly meetings to develop and refine acceptance criteria continued this month.	0	0	0

## TECHNOLOGY

System Software,  
Hardware, and  
Integrations

Data Conversion

Quality Management  
and Testing

Configuration  
Management

Security

Deployment and  
Operations

AUG	SEPT	OCT	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
					NEW	OPEN	CLOSED
NA	G	G	Configuration Management	ALM is used as a tracking and reporting tool for requirements, testing, and status. The development team uses a custom Morneau Shepell application called Ariel Back Office to manage and document configuration. Morneau Shepell follows a structured process that progresses through requirements identification, configuration control, documentation, release management, quality assurance, and testing. A release summary report is generated to capture configuration and development changes by segment. IV&V will review the release summary reports and ongoing configuration management going forward.	0	0	0
G	G	G	Security	The Ariel EAS BAS Architecture Overview included security components related to role-based access control, encryption, password, and identity management at a high level. Morneau Shepell has completed baseline set-up for the Azure environments and has agreed to perform a review of the baseline configuration, and complete penetration tests and compliance scans of the environments. The upcoming meeting to review the Architecture Overview document and additional security and integrations documentation will help further confirm details on how the Ariel solution will meet security controls and requirements.	0	0	0
NA	NA	NA	Deployment and Operations	Deployment activities are not occurring at this stage of the project.	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
SAMLv2.0	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
Reviewed Architecture Overview document
Reviewed Project Work Plan
Conducted stakeholder interviews
Participated in Hawaii EUTF project management, acceptance criteria, data conversion, and Fit/Gap Sessions
Presented at Hawaii EUTF Board of Trustees and Joint Steering Committee Meetings
Finalized September Monthly IV&V Status Report and submitted Draft October 2020 Monthly IV&V Status Report

### KEY UPCOMING IV&V DELIVERABLES

KEY IV&V DELIVERABLES	DRAFT DUE DATE	DRAFT SUBMITTED	FINAL SUBMITTED
October 2020 Monthly IV&V Status Report	11/05/20	11/05/20	-

### 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

## Appendix D: Interviews, Meetings, and Documents

### INTERVIEWS

DATE	INTERVIEWEE
10/20/20	EUTF Systems Supervisor, Systems Management Section
10/21/20	EUTF Applications Supervisor, Applications Management Section
10/22/20	Morneau Shepell Implementation Leader and Business Analyst, Configuration Management Interview

### MEETINGS

DATE	MEETING DESCRIPTION
09/28/20	EUTF/ICON/MS Data Conversion Weekly Meeting
09/28/20	Requirements Acceptance Criteria
09/28/20	EUTF - Joint Weekly Project Team Meeting
09/29/20	EUTF Board Meeting
09/29/20	Prep for Phase 3 IT Plan Review Meeting
09/29/20	EUTF - Phase 3 IT Plan Review
09/30/20	EUTF - Fit/Gap Session 3, Day 1
10/01/20	EUTF/ICON/MS Data Conversion Weekly Meeting
10/02/20	EUTF - Fit/Gap Session 3, Day 1 (follow-up)
10/05/20	EUTF/ICON/MS Data Conversion Weekly Meeting
10/05/20	Requirements Acceptance Criteria
10/05/20	EUTF - Joint Weekly Project Team Meeting

## MEETINGS (CONTINUED)

DATE	MEETING DESCRIPTION
10/07/20	EUTF - Fit/Gap Session 4, Day 1
10/08/20	EUTF - Fit/Gap Session 3, Day 2
10/08/20	EUTF - Joint Stand-up Meeting
10/09/20	EUTF - Fit/Gap Session 3, Day 3
10/12/20	EUTF/ICON/MS Data Conversion Weekly Meeting
10/12/20	EUTF - PCP Session
10/12/20	Requirements Acceptance Criteria
10/12/20	EUTF - Joint Weekly Project Team Meeting
10/13/20	EUTF - Fit/Gap Session 5, Day 1
10/14/20	EUTF - Fit/Gap Session 5, Day 2 - Part 1
10/14/20	EUTF - BAS Joint Monthly Steering Committee Meeting
10/14/20	EUTF - Fit/Gap Session 5, Day 2 - Part 2
10/14/20	EUTF - Segment 1 Interval 1 System Demo
10/15/20	EUTF - Fit/Gap Session 5, Day 3
10/15/20	EUTF - Application LifeCycle Management Overview
10/16/20	EUTF - Fit/Gap Session 5, Day 4
10/19/20	EUTF/ICON/MS Data Conversion Weekly Meeting
10/19/20	Requirements Acceptance Criteria
10/19/20	EUTF - Joint Weekly Project Team Meeting
10/20/20	EUTF - Data Edit Review



## MEETINGS (CONTINUED)

DATE	MEETING DESCRIPTION
10/20/20	EUTF - Billing Conversion Records Discussion
10/21/20	EUTF - Billing Conversion Records Discussion (Continued)
10/22/20	EUTF - Joint Stand-up Meeting
10/23/20	EUTF - Fit/Gap Session 6, Day 1
10/26/20	Requirements Acceptance Criteria
10/26/20	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 – 2020-10-14
Governance	EUTF – Board BAS Update 2020929
Project Management	Hawaii EUTF Morneau Shepell Project Kick-Off – FINAL (06/04/20)
Project Management	EUTF – Weekly Project Team Status – 2020-09-28

## DOCUMENTS (CONTINUED)

TYPE	DOCUMENT
Project Management	EUTF – Weekly Project Team Status – 2020-10-05
Project Management	EUTF – Weekly Project Team Status – 2020-10-12
Project Management	EUTF – Weekly Project Team Status – 2020-10-19
Project Management	EUTF – Weekly Project Team Status – 2020-10-26
Project Management	20201009 Segal EUTF Status Report
Project Management	20201016 Segal EUTF Status Report
Project Management	20201023 Segal EUTF Status Report
Project Management	Hawaii EUTF_ICON Status Report – Week Ending 10 09 2020
Project Management	Hawaii EUTF_ICON Status Report – Week Ending 10 16 2020
Project Management	Hawaii EUTF_ICON Status Report – Week Ending 10 23 2020
Risk and Issues	EUTF – CRAID 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
Deliverable	EUTF - Data Migration Strategy Plan
Deliverable	EUTF – BAS DED Solution Architecture Documents 20201002
Deliverable	Ariel EAS BAS Architecture Overview

## DOCUMENTS (CONTINUED)

TYPE	DOCUMENT
Knowledge Transfer	EUTF – Business Process
Knowledge Transfer	EUTF – Plan Analysis
Knowledge Transfer	Active Rates Import 7.01.2020
Requirements	EUTF-001 Potential Gap.docx
Requirements	EUTF PotentialGap_TrackingLog.xlsx
Training	UAT_ALM_Training_Guide.docx



## *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	2020.08.PM01	Risk	Low	Low	The COVID-19 pandemic may impact project schedule, resources, and costs.	<p>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:</p> <ul style="list-style-type: none"><li>• 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.</li><li>• 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.</li><li>• EUTF has several open positions that could play essential roles on the project. EUTF's request to fill these positions is pending.</li><li>• 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.</li></ul>	2020.08.PM01.R1	Formulate processes for how to respond to COVID-19 impacts to the project.	<ul style="list-style-type: none"><li>• 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.</li><li>• Assess COVID-19 direct and indirect impacts to the project and prepare contingency plans for possible scenarios.</li><li>• Ensure all key EUTF project team members have the necessary access, equipment, and technology to work remotely effectively.</li></ul>	Closed	<p>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.</p> <p>10/27/20: EUTF, Momeau Shepell, Segal, and ICON worked together to identify back-up resources for each key project team member to ensure resource continuity.</p>	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 Momeau Shepell, 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.	<p>Segal was contracted to provide various project management, OCM, BPR, data conversion, and quality management services for EUTF. Segal is effectively monitoring and reviewing Momeau 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 Momeau 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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Although this finding is reported under the Project Organization and Management IV&amp;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.</p>	2020.07.PM02.R1	Clarify Segal and ICON deliverables.	<ul style="list-style-type: none"><li>• Clarify purpose, content, and expectations of each of the contracted deliverables.</li><li>• Consider whether contracted deliverables still make sense based on project needs.</li></ul>	Closed	<p>08/25/20: Segal and ICON made good progress on clarifying deliverables and project activities related to their responsibilities. EUTF, Segal, and IV&amp;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&amp;V received sufficient clarification of Segal and ICON deliverables.</p> <p>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&amp;V received sufficient clarification of Segal and ICON's schedules for this stage of the project.</p> <p>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.</p> <p>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.</p>	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.	<ul style="list-style-type: none"><li>• Provide the appropriate detail of tasks, durations, due dates, milestones, and deliverables for various parties.</li></ul>				
							2020.07.PM02.R3	Develop and clarify Segal, ICON, and EUTF processes.	<ul style="list-style-type: none"><li>• Key processes include resource and schedule management, cost management, BPR, OCM, quality management, data cleansing, and data conversion.</li><li>• Consider including Segal, ICON, and EUTF's status and metrics in existing reports and dashboards.</li><li>• Consider including Segal, ICON, and EUTF status and activities in recurring project management meetings to promote even greater project cohesion.</li></ul>				
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.	<p>The project team members have:</p> <ul style="list-style-type: none"><li>• Encouraged EUTF SMEs to openly discuss areas of confusion and request for improvements to working sessions.</li><li>• 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).</li><li>• Openly discussed possible solutions to address areas of concern.</li><li>• Continue to proactively ask for feedback after meetings and working sessions.</li><li>• 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.</li></ul>	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				
		 <b>ACCUITY</b>		
ID #	Page #	Comment	Commenter's Organization	Accuity Resolution
1	5	Clarification for Project Management requested for the following statement: Fit/Gap sessions for Interval 1 finished in October, with 48 requirements completed, 20 deferred, and one gap between the requirement and Ariel solution identified.	Segal	Build and Configure activities for Interval 1 finished in October, with 48 requirements completed and 20 deferred to later intervals. Morneau Shepell's development team is working on one gap identified between the original requirement and out-of-the-box functionality available in the Ariel solution.
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