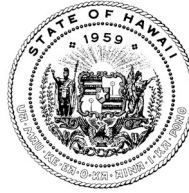


DAVID Y. IGE  
GOVERNOR



DOUGLAS MURDOCK  
CHIEF INFORMATION  
OFFICER

**OFFICE OF ENTERPRISE TECHNOLOGY SERVICES**

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September 15, 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 (Sep 15, 2020 11:37 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

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

MONTHLY IV&V STATUS REPORT

July 24, 2020 | Version 1.0

REPORT FINALIZED

August 20, 2020

QUALITY.  
INTEGRITY.  
INSIGHT.

**Acuity**<sup>LLP</sup>

CERTIFIED  
PUBLIC  
ACCOUNTANTS

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	14
Appendix A: IV&V Criticality and Severity Ratings	16
Appendix B: Industry Standards and Best Practices	18
Appendix C: IV&V Monthly Status	21
Appendix D: Interviews, Meetings, and Documents	22
Appendix E: Comment Log on Draft Report	26



## *Document History*

DATE	DESCRIPTION	AUTHOR	VERSION
08/05/20	Monthly IV&V Status Report Draft created	Julia Okinaka	0.0
08/20/20	Monthly IV&V Status Report updated for minor formatting edits. No comments submitted in Appendix E.	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.

The Initial Assessment Report covered project commencement through June 26, 2020. Monthly IV&V Status Reports will be 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 focus of our IV&V activities for this report included the completion of a two-month evaluation of project organization and management, and data conversion, the review of risk, cost, schedule and resource management, and the start of a two-month evaluation of requirements management. We will continue our review of requirements management through the next report period for a more in-depth assessment.

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 July 24, 2020. Refer to Appendix A: IV&V Criticality and Severity Ratings for an explanation of the ratings.

#### PROJECT PLANNING

*"Good fortune is  
what happens when  
opportunity meets  
with planning."*

*- Thomas Edison*



# PROJECT ASSESSMENT

AS OF JULY 24, 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

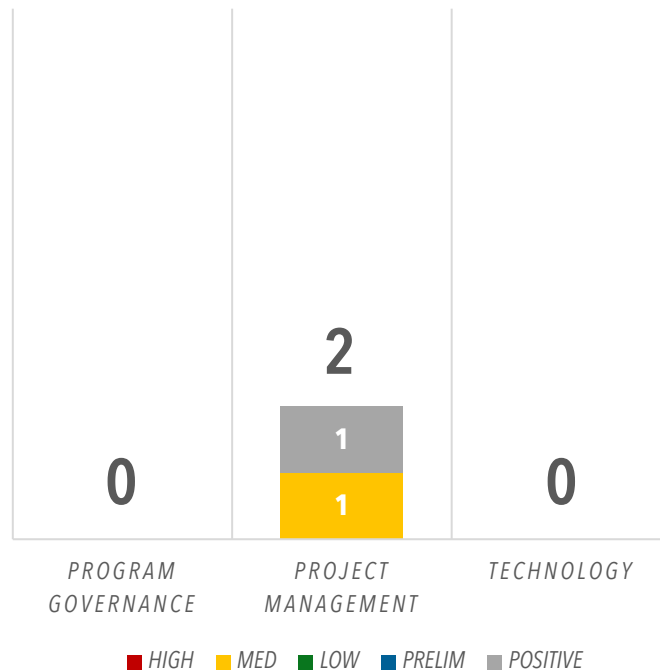
LOW

NA

N/A

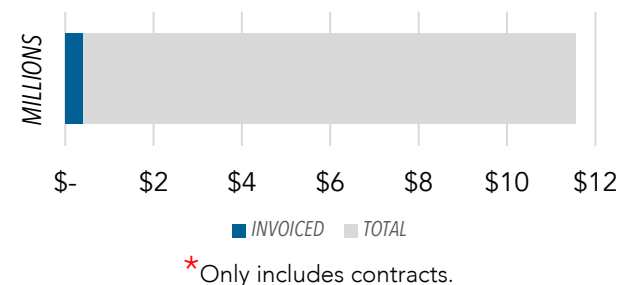
## 2 OPEN FINDINGS

SEVERITY RATINGS BY ASSESSMENT AREA

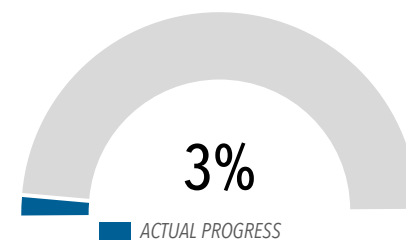


## 3 OPEN RECOMMENDATIONS

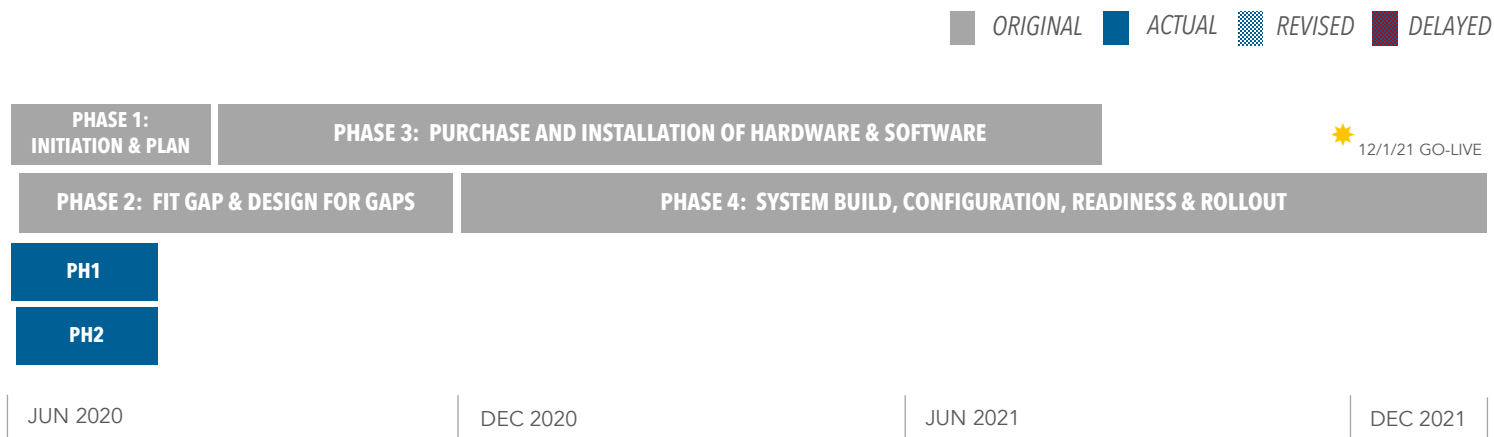
### PROJECT BUDGET<sup>\*, \*\*</sup>



### PROJECT PROGRESS<sup>\*\*</sup>



## PROJECT TIMELINE<sup>\*\*</sup>











<sup>\*\*</sup> Pending finalization and approval



# ASSESSMENT AREA & RATINGS SUMMARY

AS OF JULY 24, 2020

INITIAL	JUL	IV&V ASSESSMENT AREA	IV&V OBSERVATIONS
		<i>Overall</i>	<p>The overall project rating reflects positive momentum, team collaboration, and establishment of many key project management practices. The criticality rating for eight IV&amp;V Assessment Categories are a solid green, and five are trending downward. The downward trending areas reflect the need for EUTF and Segal to establish some additional foundational project processes and clarify deliverables and timelines relevant for on-going project activities. Our assessment resulted in one positive finding and one risk.</p> <p>Project Schedule: The project is generally on schedule with Morneau Shepell's project schedule. Accuity is unable to assess progress in other areas of the project as Segal and ICON's project schedules are still pending, and a schedule reflecting EUTF's activities and resources is still needed (refer to finding 2020.07.PM02).</p> <p>Project Costs: Project contract costs invoiced to-date approximated \$414,000. Accuity is unable to validate the total project budget or assess cost variances as EUTF and Segal still need to develop a formal project budget and finalize contract payment schedules (refer to finding 2020.07.PM02).</p> <p>Quality: EUTF and Segal still need to establish quality management metrics (refer to finding 2020.07.PM02). Accuity will evaluate and report on quality when EUTF begins to collect metrics data.</p>
		<i>Program Governance</i>	<p>Joint Steering Committee (JSC) meetings will begin in August 2020 and project updates will be provided to the EUTF Board of Trustees at the September 2020 Board Meeting. Morneau Shepell drafted some preliminary success metrics for EUTF consideration and further development. EUTF began collecting internal program metrics and data to incorporate into overall project goals and success metrics.</p>
		<i>Project Management</i>	<p>The project team continues to work collaboratively and support a culture of open communication and continuous improvement amongst all parties. Morneau Shepell activities, deliverables, and project management processes are effectively monitored and reviewed by EUTF and Segal. Morneau Shepell made good progress in clarifying their deliverables and establishing project management processes. Segal and ICON submits regular status reports on project activities. IV&amp;V was unable to adequately evaluate the activities and deliverables of Segal and ICON as plans, schedules, and processes are still under development.</p>
		<i>Technology</i>	<p>Morneau Shepell and EUTF determined that the BAS solution would be hosted on Morneau Shepell's Microsoft Azure subscription with no additional maintenance fees to provide first line support. Data conversion activities are underway and experiencing some delays due to the complexity of the data, differences in data field sizes, and reliance on their current BAS vendor for assistance. The risk and issue of data conversion delays are being tracked and discussed by project stakeholders. EUTF is mitigating some of the risk by starting the next group of data conversion in parallel. EUTF is currently assessing Morneau Shepell's security controls before approving the first cycle of data conversion to be placed on Morneau's sandbox environment.</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 eight IV&V Assessment Categories are green, and five are trending downward. As the project is still in the project initiation and planning phases, the downward trending areas reflects the need for approaches and processes to be formalized, documented and communicated in the respective categories.

### AT-A-GLANCE

**CULTURE** of  
continuous  
**IMPROVEMENT**

**POSITIVE**  
momentum and  
**TEAM**  
**COLLABORATION**

**DOCUMENT** and  
**COMMUNICATE**  
key project  
processes

INITIAL	JUL	PROGRAM GOVERNANCE
G	G	Governance Effectiveness
NA	G	Benefits Realization

INITIAL	JUL	TECHNOLOGY
G	G	System Software, Hardware, and Integrations
G	G↓	Data Conversion
NA	G↓	Quality Management and Testing
NA	NA	Configuration Management
NA	G	Security
NA	NA	Deployment and Operations

INITIAL	JUL	PROJECT MANAGEMENT
G	G↓	Project Organization and Management
G	G	Requirements Management
G	G↓	Cost, Schedule, and Resource Management
G	G	Risk Management
G	G	Communications Management
NA	G	Organizational Change Management (OCM)
NA	G↓	Business Process Reengineering (BPR)
NA	NA	Training and Knowledge Transfer



## PROGRAM GOVERNANCE

Governance  
Effectiveness

Benefits Realization



## PROGRAM GOVERNANCE

INITIAL	JUL	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
				NEW	OPEN	CLOSED
G	G	Governance Effectiveness	Joint Steering Committee (JSC) meetings will begin in August 2020 and project updates will be provided to the EUTF Board of Trustees at the September 2020 Board Meeting.	0	0	0
NA	G	Benefits Realization	Morneau Shepell's Project Charter, Scope and Management Plan included some preliminary success metrics for EUTF consideration and further development. The EUTF PM began collecting internal program metrics and data to incorporate into overall project goals and success metrics.	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

INITIAL	JUL	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
				NEW	OPEN	CLOSED
G	G↓	Project Organization and Management	The project team continues to work collaboratively and support a culture of open communication and continuous improvement amongst all parties. Constructive feedback continues to be shared by EUTF and Segal with Morneau Shepell, and improvements to processes and activities are implemented quickly and effectively. Morneau Shepell activities, deliverables, and project management processes are effectively monitored and reviewed by EUTF and Segal. The status of Morneau Shepell activities and deliverables are also documented and tracked in Joint Weekly Status Reports and Segal status reports. ICON submits weekly status reports on their data mapping and conversion activities. IV&V is unable to adequately evaluate the activities and deliverables of Segal and ICON as plans, schedules, and processes are still under development. Morneau Shepell delivered a draft Project Charter, Scope and Management Plan which still needs to be reviewed and refined. The plan made good progress towards identifying their deliverables and establishing project management processes; however, it lacks specificity regarding clear project management processes, which may result in unclear expectations between the vendors and the State. As the plan is still in draft form and pending comments from EUTF and Segal, Accuity will review more thoroughly in the upcoming months.	2	2	0
G	G	Requirements Management	The Kick-off for the Discovery Sessions was held on July 2, 2020 providing an overview, proposed schedule, and requirement traceability process. Morneau Shepell is maintaining a central repository of all requirements, business rules, and testing in its Application Lifecycle Management (ALM) tool. Three of the six Discovery Sessions will be completed by the end of July with the goal of refining and clarifying requirements. IV&V will continue our review of requirements management through the next report period for a more in-depth 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

INITIAL	JUL	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
				NEW	OPEN	CLOSED
G	G↓	Cost, Schedule, and Resource Management	Project contract costs invoiced to-date approximated \$414,000. Accuity is unable to validate the total project budget or assess cost variances as EUTF and Segal still need to develop a formal project budget and finalize contract payment schedules (refer to finding 2020.07.PM02). The project is generally on schedule with Morneau Shepell's project schedule. EUTF is working with Morneau Shepell to update their payment schedule based on their revised workplan. Morneau Shepell provided an initial project schedule on June 26, 2020 and submitted a revised schedule on July 27, 2020. Morneau Shepell plans on updating and uploading the schedule weekly to the Project SharePoint site. Accuity is unable to assess progress in other areas of the project as Segal and ICON's project schedules are still pending, and a schedule reflecting EUTF's activities and resources is still needed (refer to finding 2020.07.PM02). Segal's project dashboard, SmartSheet, will become a more effective project management tool as it tracks not only Morneau's activities, but also becomes a tool to manage all project activities, deliverables and resources.	0	0	0
G	G	Risk Management	Risks continue to be logged and discussed during weekly project meetings. An issues resolution process was included in Morneau Shepell's draft Project Charter, Scope and Management Plan. Additional high-level risks were identified in that Plan and will be added to the risk log, if approved by the EUTF Project Manager.	0	0	0
G	G	Communications Management	Morneau Shepell's draft Project Charter, Scope and Management Plan included various communication activities including the communication goal, audience, method, frequency, and owner. Morneau Shepell clarified this month that they were responsible for project communications to internal project stakeholders, while OCM and external communications would be executed by EUTF and Segal.	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

INITIAL	JUL	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
				NEW	OPEN	CLOSED
NA	G	Organizational Change Management (OCM)	Segal gave an introduction presentation to EUTF employees on OCM, BPR, Training, and Testing on July 9, 2020. The presentation provided tools and techniques that EUTF SMEs could use during Discovery Sessions to identify and track process and system changes. These tools were placed on a project dashboard, SmartSheet. Segal also provided an OCM Roadmap and Workshop to EUTF supervisors to help them understand their role in OCM and identify OCM needs. Segal's responsibilities include the development of an OCM Plan, which is still in development.	0	0	0
NA	G	Business Process Reengineering (BPR)	BPR concepts were introduced during the presentation to EUTF employees on OCM, BPR, Training, and Testing. Informal BPR discussions have been initiated by EUTF as some SMEs came to Discovery Sessions prepared to discuss their current processes, workarounds they perform, and wish list items for the future BAS solution. These wish list items are being tracked on the SmartSheet dashboard. Segal's responsibilities include the development of a BPR Plan, which is still in development.	0	0	0
NA	NA	Training and Knowledge Transfer	Training and Knowledge Transfer activities are not occurring at this stage 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

FINDING #: 2020.07.PM01

STATUS: OPEN

TYPE: POSITIVE

SEVERITY: N/A

### TITLE: PROJECT CULTURE OF COLLABORATION AND CONTINUOUS IMPROVEMENT

**Finding:** POSITIVE - The project team continues to work collaboratively and support a culture of open communication and continuous improvement amongst all parties.

**Industry Standards and Best Practices:** N/A

**Analysis:** 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.

**Recommendation:** N/A for positive findings.



## 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 #: 2020.07.PM02

STATUS: OPEN

TYPE: RISK

SEVERITY:  2

### TITLE: UNCLEAR PROJECT DELIVERABLES, SCHEDULE, AND PROCESSES FOR SEGAL

**Finding:** Segal's contract contains responsibilities and deliverables beyond oversight of Morneau 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.

**Industry Standards and Best Practices:** PMI PMBOK describes the best practices for project planning, schedule, cost, quality, and resource management.

**Analysis:** 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.



## 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 #: 2020.07.PM02

STATUS: OPEN

TYPE: RISK

SEVERITY: 

### TITLE: UNCLEAR PROJECT DELIVERABLES, SCHEDULE, AND PROCESSES FOR SEGAL (continued)

**Recommendations:** 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.

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.



## TECHNOLOGY

System Software,  
Hardware, and  
Integrations

Data Conversion

Quality Management  
and Testing

Configuration  
Management

Security

Deployment and  
Operations



## TECHNOLOGY

INITIAL	JUL	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
				NEW	OPEN	CLOSED
		System Software, Hardware, and Integrations	Morneau Shepell and EUTF determined that the BAS solution would be hosted on Morneau Shepell's Microsoft Azure subscription with no additional maintenance fees to provide first line support. Data extraction and mapping was one of the initial key focus areas in June and July.	0	0	0
		Data Conversion	In July, the data conversion team members continued to discuss and clarify data extract layouts, data records, data mapping, integrity, security, and conversion. Data conversion activities are underway and experiencing some delays due to the complexity of the data, differences in data field sizes, and reliance on their current BAS vendor for assistance. The risk and issue of data conversion delays is being tracked and discussed by project stakeholders. EUTF completed their first data extract for Group 1. EUTF is mitigating some of the risk by starting the data extract process for Group 2 in parallel. Morneau Shepell plans on submitting their draft Data Migration Strategy and Plan by the end of July 2020. ICON's Initial Project Plan to provide data consulting and conversion services is still in development.	0	0	0
		Quality Management and Testing	Segal's responsibilities include the development of quality standards and a Quality Plan, which are still in development. As part of quality management of project deliverables, Segal reviews Morneau Shepell's deliverables. Testing activities are not occurring at this stage of the project. Morneau Shepell is responsible for developing a testing strategy and plan and test cases to cover unit, system, regression, integration, parallel, user acceptance, volume, and stress testing.	0	0	0



## TECHNOLOGY

System Software,  
Hardware, and  
Integrations

Data Conversion

Quality Management  
and Testing

Configuration  
Management

Security

Deployment and  
Operations

INITIAL	JUL	IV&V ASSESSMENT CATEGORY	IV&V OBSERVATION	FINDINGS		
				NEW	OPEN	CLOSED
NA	NA	Configuration Management	The proposed solution is aimed at maximizing the out-of-the-box Ariel EAS features to meet EUTF requirements, with the least amount of customizations. Morneau Shepell provided a high-level Release and Configuration Management process overview as part of its response to the EUTF BAS RFP. IV&V to evaluate when the Change Control Plan and detailed configuration management documentation is available.	0	0	0
NA	G	Security	EUTF's Information Systems Chief is taking appropriate steps to inquire about Morneau Shepell's security controls and practices, including having them complete a cloud security assessment questionnaire. EUTF is currently assessing Morneau Shepell's security controls before approving the first cycle of data conversion to be placed on Morneau's sandbox environment.	0	0	0
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. Up arrows indicate improvements or progress made, down arrows indicate a decline or inadequate progress made in areas of increasing risk or approaching timeline, and 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 4	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
Provided PROSCI OCM tools and templates and sample initial assessment survey questions
Made informal recommendations on OCM approach and presentation
Provided cloud security assessment questionnaires to assist with evaluation of Sandbox Environment
Provided Agile Methodology presentation outline to assist with EUTF's understanding of the implementation approach
Provided examples of project success metrics
Reviewed EUTF BAS project documentation
Participated in EUTF BAS data conversion meetings and Discovery Sessions
Participated in EUTF BAS Project Management Meetings (Joint Weekly Project Team and Joint Bi-weekly PM Meetings)
Conducted meetings to review IV&V's June deliverables (IV&V Project Management Plan and Initial Assessment Report)
Finalized June deliverables and submitted Draft July 2020 Monthly IV&V Status Report

### KEY UPCOMING IV&V DELIVERABLES

KEY IV&V DELIVERABLES	DRAFT DUE DATE	DRAFT SUBMITTED	FINAL SUBMITTED
July 2020 Monthly IV&V Status Report	08/05/20	08/05/20	-

### 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



## Appendix D: Interviews, Meetings, and Documents

### INTERVIEWS

DATE	INTERVIEWEE
07/23/20	EUTF Assistant Administrator: Review July preliminary observations, obtain update on project activities

### MEETINGS

DATE	MEETING DESCRIPTION
06/29/20	EUTF - Joint Weekly Project Team Meeting
07/02/20	EUTF – Phase 1 – Discovery Session Kick-off
07/06/20	Joint Weekly Project Team Meeting
07/06/20	OCM BPR Testing Training and Stakeholders
07/07/20	EUTF – Joint Bi-Weekly PM Meeting
07/08/20	EUTF BAS IV&V Project Deliverables Review
07/09/20	Hawaii EUTF - Extract Format Review Session
07/09/20	Ariel Implementation - Looking Forward (OCM, BPR, Training, and Testing)
07/10/20	Hawaii EUTF - Extract Format Review Session
07/10/20	Morneau Shepell/EUTF Hosting Discussion
07/13/20	Planning Session 1 - Day 1
07/13/20	EUTF - Joint Weekly Project Team Meeting
07/14/20	Planning Session 1 - Day 2



## MEETINGS (CONTINUED)

DATE	MEETING DESCRIPTION
07/15/20	Planning Session 1 - Day 3
07/16/20	Planning Session 1 - Day 4
07/20/20	EUTF - Joint Weekly Project Team Meeting
07/21/20	Discovery Session 2 - Day 1
07/21/20	EUTF - Joint Bi-Weekly PM Meeting
07/22/20	Discovery Session 2 - Day 2
07/23/20	Discovery Session 2 - Day 3
07/23/20	OCM Roadmap and Workshop
07/24/20	Data Conversion Status and Update

## DOCUMENTS

TYPE	DOCUMENT
Request for Proposal	State of Hawaii EUTF BAS RFP No. RFP-20-002 for Health Benefits Administration System (Release Date 11/27/19)
Morneau Shepell Proposal	Final Response Morneau Shepell Limited to State of Hawaii EUTF RFP-20-002 – Master (Dated 01/24/20)
Morneau Shepell Proposal	EUTF BAS RFP 20-002- Morneau Shepell BAFO Response Implementation Plan - FINAL
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)



## DOCUMENTS (CONTINUED)

TYPE	DOCUMENT
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)
Project Management	Hawaii EUTF Morneau Shepell Project Kick-Off – FINAL (06/04/20)
Project Management	EUTF – Weekly Project Team Status – 2020-06-29
Project Management	EUTF – Weekly Project Team Status – 2020-07-07
Project Management	EUTF – Joint PM Meeting Agenda– 2020-07-06
Project Management	EUTF – Weekly Project Team Status – 2020-07-13
Risk and Issues	EUTF – RAID Log
Schedule	Hawaii (EUTF) – BAS Work Plan (2020-06-26)
Data Conversion	Data Conversion Kick-off Agenda
Data Conversion	EUTF – MS Data Conversion Kick-off
Data Conversion	EUTF Employee Conversion Layout
Data Conversion	Data Flow and Process of MS Data Extracts
Meeting Minutes	EUTF – Weekly Project Team Status with Minutes – 2020-06-29
Meeting Minutes	EUTF – Weekly Project Team Status with Minutes – 2020-07-06
Meeting Minutes	EUTF – Joint PM Meeting Minutes – 2020-07-07
Meeting Minutes	EUTF – Weekly Project Team Status with Minutes – 2020-07-20



## DOCUMENTS (CONTINUED)

TYPE	DOCUMENT
Meeting Minutes	EUTF – Joint PM Meeting Minutes – 2020-07-21
Discovery Session	EUTF – Discovery Session 1 - Agenda
Discovery Session	EUTF – Discovery Session 2 - Agenda
Discovery Session	EUTF – RFP Requirements
Discovery Session	EUTF – Phase 1 & 2 Process Overview PowerPoint
Deliverable	Project Charter, Scope, and Management Plan
Deliverable	Project Plan Review 20200629
Deliverable	Project Plan Review 20200706-CC
Deliverable	EUTF – BAS DED
Deliverable	Deliverable Expectation Document Draft – Project Plan
Deliverable	EUTF – BAS DED – Project Plan
Deliverable	Deliverable Acceptance Document – Project Plan
Implementation	MS – BAS Implementation Approach







## *Appendix E: Comment Log on Draft Report*



Appendix E: Comment Log on Draft Report

EUTF BAS Project: IV&V Document Comment Log				
		 CERTIFIED PUBLIC ACCOUNTANTS		
ID #	Page #	Comment	Commenter's Organization	Accuity Resolution
1		No EUTF or ETS comments.		
2				
3				
4				
5				
6				
7				
8				
9				
10				





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