OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

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March 30, 2021

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

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

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

Pursuant to HRS section 27-43.6, which requires the Chief Information Officer to submit applicable independent verification and validation 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 of Hawaii Department of Human Services' Systems Modernization Project.

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

Sincerely,

Douglas Murdock (Mar 31, 2021 09:01 HST)

Douglas Murdock
Chief Information Officer
State of Hawai'i

Attachment (2)

Hawaii Department of Human Services Systems Modernization Project

Final IV&V Status Report
for Reporting Period: February 1 - 28, 2021

Submitted: March 11, 2021

PUBLIC CONSULTING GROUP

Solutions that Matter

Overview

-

Executive Summary

Executive Summary

In this reporting period, the project team made significant progress in project communications. The DHS BESSD staff added in January are making a positive impact on the BES design. To facilitate improved communications, the project team is using the Confluence tool to collaboratively develop design documents, deliverables and other artifacts. Many of the improvements are a direct result of implementing the Release 0.2 Lessons Learned. As a result of these improvements, the criticality ratings of several IV&V findings were lowered.

Release 0.3 is on schedule to begin UAT in early March. Planning, requirement validation, and design activities are in progress for Release 0.4 and 0.5. The project team is currently addressing challenges reported with the CMM Interview, Single Sign-on, and KOLEA integration activities, the impact is unknown at this time.

Dec	Jan	Feb	Category	IV&V Observations
H	H	H	Project Management	Although the criticality ratings of several findings in this category were reduced, IV&V retains a high criticality rating for this category due to schedule concerns and inability to measure the velocity of the development team
M	M	L	System Design	One finding in this category was retired this month, the remaining open finding is related to the timing of Workflow JADs occurring late in the release cycles. IV&V and DHS noted improvement in the JAD session results and reduced the criticality rating from medium to low.
L	L	L	Deployment	There were no material changes to this category in this reporting period. The majority of the Lessons Learned action items for Release 0.2 were implemented in February with the remainder planned to complete in March.

Executive Summary

Dec	Jan	Feb	Category	IV&V Observations
M	M	M	Configuration and Development	This month the project team expanded the use of the Confluence tool to manage deliverables and other project documentation. This may enable the existing and new team members to learn/onboard more quickly while gaining exposure to the overall development processes.
H	H	H	Integration and Interface Management	There are two high criticality findings in this category. One is related to the planning, coordination and communication with Interface Partners and the other is related to the timing of the actual integration between the BES Modules (FMM, CMM, SSP) and interface partners.

IV&V Findings and Recommendations

IV&V Findings and Recommendations

As of the February 2021 reporting period, PCG is tracking 17 open findings (8 risks and 9 issues) and has retired a total of 43 findings. Of the 17 open findings, 12 are related to Project Management, 2 in Integration and Interface Management, and there is 1 finding each in Configuration and Development, System Design and Deployment.

Open Risks & Issues

Open Risks & Issues by Category
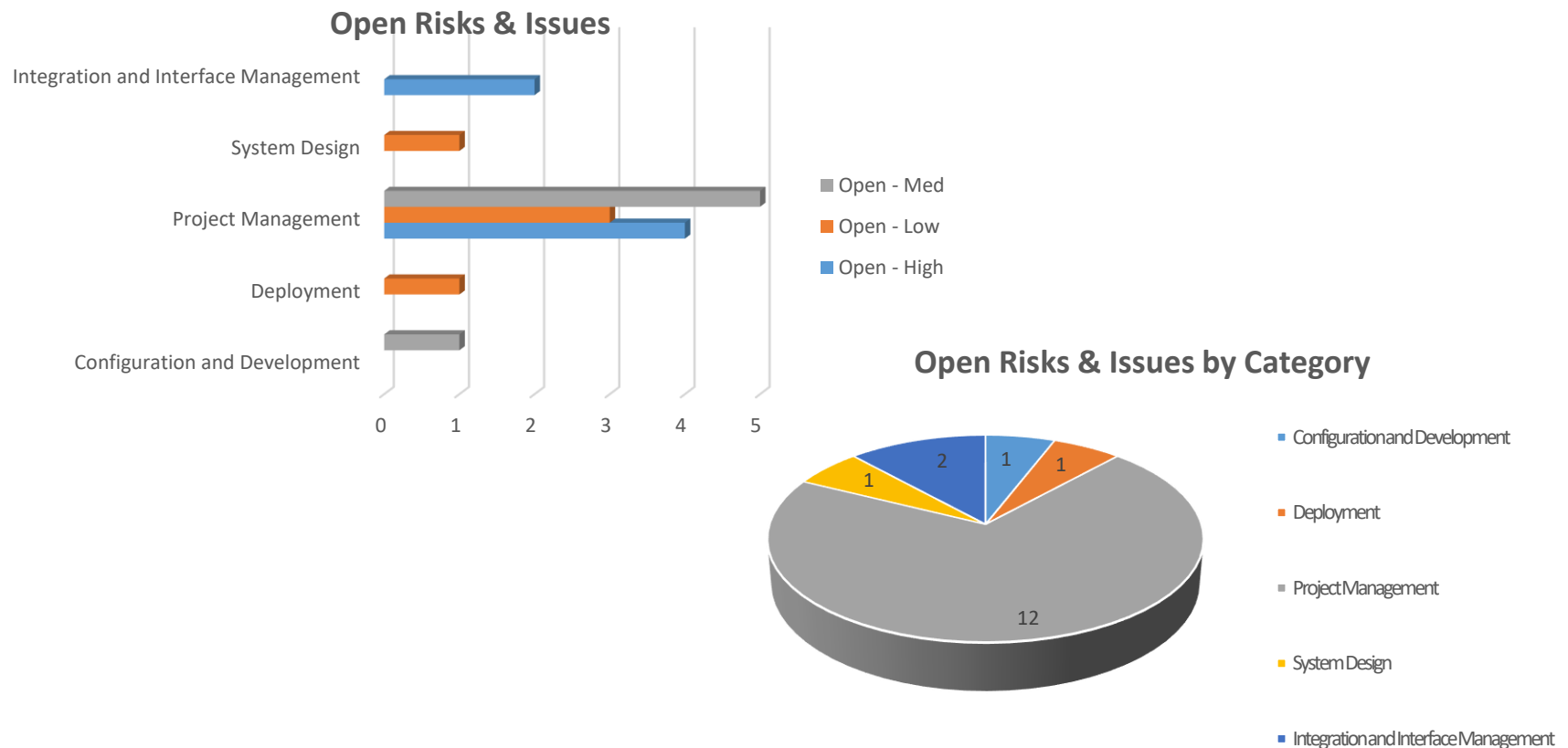
IV&V Findings and Recommendations

The following figure provides a breakdown of __all__ IV&V findings (risks, issues, concerns) by status (open, retired).
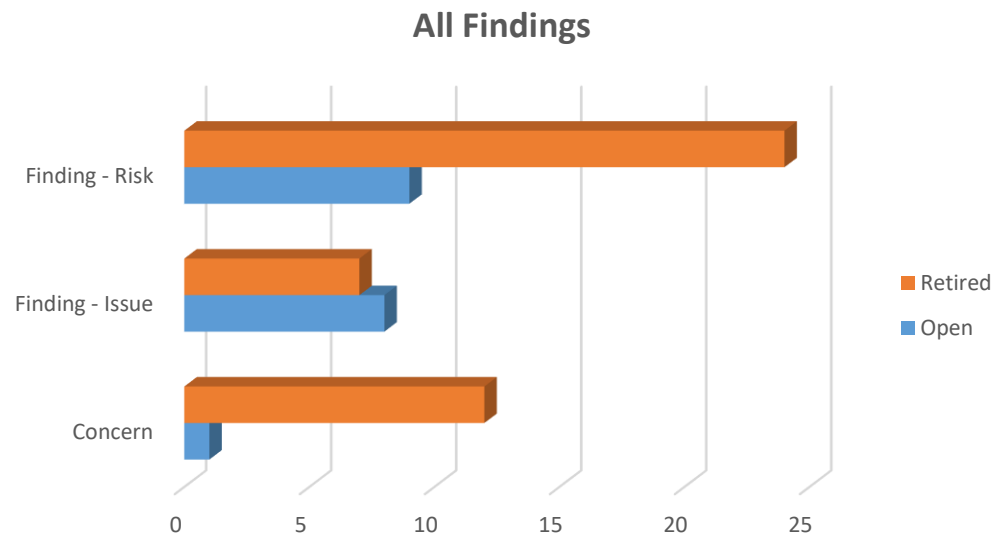
All Findings

IV&V Findings and Recommendations

Findings Opened During the Reporting Period

#	Finding	Category
	No new findings were opened in this reporting period.	

IV&V Findings and Recommendations

Findings Retired During the Reporting Period

#	Finding	Category
53	**Issue - The System Architecture documentation is scheduled for completion after multiple releases are in development, and some releases are already completed which may cause rework.** All architecture documents are now complete and approved. The ASI's weekly meetings to discuss architectural decisions continued with input from DHS leadership. Demos are provided on new technologies to ensure the right tool is selected for any given solution. IV&V is retiring this finding and will continue to monitor the communication of architectural decisions to validate the process for introducing new technologies is followed.	System Design
55	**Risk - Test Case creation without functionality acceptance from JAD/JAR sessions may lead to inadequate testing.** Initially, some JAD session results were not updated in the design documents, causing confusion and subsequent rework. As reported previously, the ASI took several actions to remedy and IV&V has not observed any further instances, therefore this finding is being retired.	Project Management
57	**Risk - Roles and responsibilities of the BES "Product Owner" and communication of this role's activities with DHS and the project team is not clear.** The DHS Product owners (POs) are engaged and performing to the established roles and responsibilities. They are leveraging their business knowledge to influence the design of the BES solution to include collaboration on the project deliverables with the ASI PO's. IV&V is retiring this finding.	Project Management

IV&V Findings and Recommendations

Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
61	**Poorly planned/executed JAD sessions may lead to rework and schedule delays**. DHS and IV&V observed continued improvement in the February JAD sessions. Specific improvements were JAD preparedness, facilitation, and execution to ensure all participants understand and agree on the design of the BES solution. IV&V will continue to monitor.	System Design

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
2	**Issue – Late Delivery of project deliverables may cause schedule delays**. In the February 17, 2021 status meeting, the project team reported challenges regarding the Release 0.4 CMM Interview, KOLEA MDM and Single Sign-on development activities. The project team is researching options and assessing the schedule impact. As a result, some deliverables were late. Consequently, IV&V retains this as a high criticality issue. Additionally, the ASI reported that they completed an internal root cause analysis and conduct a weekly internal meeting to review the schedule details to identify possible delays and take mitigation actions.	H

Recommendations	Progress
• Prior to acceptance of the new baseline, finalize the needed updates to the project schedule to address the outstanding items/issues identified by DHS, the ASI, and IV&V.	In process
• IV&V recommends the project team evaluate the estimating process to determine if changes should be made to reduce the number of late tasks and/or conduct a root cause analysis to determine and address the root cause(s).	Complete

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
29	**Issue - Uncertainty and/or a lack of communication around long term architecture decisions could impact the project budget, schedule, system design, and planning decisions.** The project continues to clarify the DHS portal strategy. The project appears poised to select a container security tool. Weekly ASI/DHS/ESI architecture and other architecture and security-related meetings have served to communicate architecture decisions. Therefore, IV&V reduced the criticality rating of this finding from medium to low. IV&V remains concerned with the complexity and number of tools that are being utilized and if the governance structure is effective to manage the architecture.	L

Recommendations	Progress
• The ASI should continue to document the architectural details in the BI-12 System Architecture Deliverable and if possible, review draft content with DHS and IV&V.	Complete
• DHS should finalize the Portal strategy and communicate the strategy with the stakeholders and project teams.	In process
• The project should vet possible architectural change impacts to the platform, M&O, MQD, and BES systems before finalizing architectural decisions.	In process
• Communication should be improved to create an awareness of possible architecture changes so that they can prepare for the possibility of a change. For example, if there is a possibility that the platform could change then analysis/design could focus on platform agnostic design and avoid extensive efforts in refining a platform specific design.	Complete
• Establish processes to ensure regular communication between the architecture team and the rest of the project team to assess impacts of architecture decisions to the project.	Complete

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
42	**Risk – Project delays and disruption in DHS operations may occur if ASI communications with DHS regarding key (urgent/time sensitive) project information does not improve.** Communications continued to improve this month. Better use of the Confluence tool improved the efficiency of the weekly schedule review meetings, and the format/content of the Weekly Project Status Report/meeting improved. Many of these improvements resulted from the Release 0.2 Lessons Learned activities. DHS and the ASI also noted improvement. IV&V reduced the criticality rating of this finding from high to medium; monitoring in future reporting periods will continue.	M

Recommendations	Progress
• Request ASI enhance processes and planning for project communications and include key project communications to DHS in the project schedule. For example, notifications in preparation for release activities.	Complete
• DHS work with the ASI to remove barriers of communication between the DHS stakeholders and the development team.	In process
• ASI increase dialog with the DHS project team individuals instead of relying on formal meetings to inform and discuss project topics. Update the project communications plan with enhanced communication processes.	Complete
• DHS increase communication with the DHS project team members and ASI prior to key project meetings to ensure all participants are prepared.	Complete

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
43	**Issue - DHS PMO project team members have transitioned off the project, which may cause gaps in knowledge transfer and leadership on the project**. No material update to this finding in this reporting period. Note: This finding previously addressed staffing concerns in DHS' PMO and BESSD. In this reporting period, IV&V created separate findings specific to each area (see #65 for BESSD finding) to accommodate different status updates and criticality ratings.	H

Recommendations	Progress
• The state should develop a transition plan for the project PMO resources as identified in the RFP, (reference RFP section 3.4.3 'DHS Staffing'). It should also include possible project resource impacts considering the COVID-19 economic impacts to the State.	In process

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
47	**Risk – The COVID-19 pandemic and the related "stay at home" order could hinder project activities and negatively impact the project schedule and budget.** Despite significant operational needs due to the pandemic, BESSD SMEs continue to support project efforts. COVID-related furloughs could be implemented as early as July 2021 which may reduce SME capacity and hinder project activities. However, the ASI has begun leveraging features of their new collaboration tools (e.g., Confluence) that appear to be increasing the productivity of remote meetings. The ASI is currently evaluating pre and post go-live remote user support. Further, the project is concerned that SNAP target population and/or eligibility rules could change and require unplanned system changes that could negatively impact the project schedule.	M

Recommendations	Progress
• Ramp up efforts to setup, train, and assist stakeholders on remote work devices and tools and make every effort to help them to become highly functional with remote access technology (e.g. MS Teams/Skype).	Complete
• Suggest the project and DHS create a detailed, documented risk mitigation strategy and plan that is reviewed regularly and revised to address the current state of the COVID-19 threat and related impacts over the next 6 to 12 months. The plan should include the possible economic impacts to the state budget directly related to project resources.	In process
• Update the OCM Plan to include any new activities or updates to planned activities to aid the organization through this COVID-19 pandemic in the short and long term.	Complete
• Send broad communications to stakeholders to assure clear understanding of changes to the project with this regard to impacts of COVID as well as clarifying communications as to what will remain the same.	In process
• Explore options for freeing up key BESSD SME's work on the project.	Complete

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
48	**Risk – The CMS Outcomes-Based Certification Requirements have not been published by CMS, which may impact the project schedule and funding.** No material update this month, IV&V will continue to monitor.	M

Recommendations	Progress
• DHS to continue dialogue with CMS regarding the project's approach to OBC and MITA alignment to ensure all CMS requirements are met by the BES Project.	In process

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
49	**Issue – Poor quality project deliverables may impact system design, testing artifacts and the project schedule.** The Project continued to implement Release 0.2 Lessons Learned initiatives to improve project quality during February. Confluence is enabling the team collaboration to increase the quality of deliverables and work products. IV&V has reduced the criticality of this finding to low and will continue to monitor the implementation and the effectiveness of these quality improvement initiatives.	L

Recommendations	Progress
• IV&V recommends that a facilitated root cause analysis be performed by the ASI with DHS and IV&V in attendance. Quality issues are rarely generated by a single entity in a project, so there could potentially be multiple causes or root causes of this current condition. Once the root cause(s) are identified, IV&V recommends immediate action be employed to resolve quality concerns on in-process deliverables prior to submission of subsequent deliverables.	In process
• IV&V recommends that the ASI review the Quality Management Plan to ensure that the project is working within the Quality guidelines. In particular, the ASI should evaluate and consider if it is in alignment with Section 3.1.2 Measure Project Quality, which states "ASI measures process and product quality by 1) selecting BES implementation process and product attributes to measure; 2) selecting component activities to measure; 3) defining value scales for each component activity; 4) recording observed activity values; and 5) combining the recorded attribute values into a single number called a process quality index." IV&V has not seen evidence indicating the ASI is utilizing metrics to measure its process and product quality.	In process

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
54	**Risk – User Acceptance Testing (UAT) processes could lead to implementation delays and delivery of a solution that does not meet business needs or requirements.** In February, the ASI developed a process to manage updates to the BES Design Documents based on the outcome of UAT that are not categorized as defects but should be included in the BES design. Additionally, the majority of Release 0.2 Lessons Learned were implemented in February. IV&V reduced the criticality rating of this finding from medium to low and will monitor the execution of these new processes in March.	L

Recommendations	Progress
• Further develop the Lessons Learned action plan to include target complete dates. Report progress in the weekly status meeting.	Complete
• All agreed upon actions to resolve issues called out in Lessons Learned should be added to project schedule so adequate timing is provided to support UAT preparation and execution.	Complete
• The ASI could conduct a debrief meeting with DHS after SIT and UAT have completed, summarizing work completed and follow-up actions required from ASI and DHS.	In process
• Develop a clear and collaborative approach and plan to review and categorize anomalies after testing if the current defined process is not being followed. This should include defining the severity for defects and determining the next steps for anomalies not identified to be defects.	In process

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
58	**Risk – The data conversion effort lacks leadership, consistency in data governance, and effective communications which may impact the schedule**. Release 0.4 Data Conversion continued during February and is scheduled for completion in mid-April. However, the ASI reported that functionality and release timing changes being considered for the CMM Interview processes may impact data conversion. The project team has discussed changing the frequency of the Project's Data Conversion meeting from every-other-week to weekly for more frequent and consistent communication updates of detailed tasks and activities. IV&V supports this as being beneficial to the project. Based on the importance of data conversion to the overall project, IV&V is raising the criticality rating of this finding to medium and will continue to monitor.	M

Recommendations	Progress
• Assign a dedicated project leader to actively manage all aspects of the Data Conversion effort. Consider a full-time position until the Data Conversion effort is completed.	Complete
• Investigate and resolve communication issues that are suspected to be delaying the data conversion effort.	Complete
• Prioritize the conversion activities to validate the key tasks are addressed early to avoid further delays considering the complexity of the later releases.	In process
• Update the timing of the project Data Conversion meeting from every-other-week to weekly.	In process
• The ASI should develop reports with metrics that accurately measure the Data Conversion progress.	Not started

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
59	**Issue – The approach used to identify release and functional dependencies may limit the projects' ability to identify and mitigate schedule slippage early.** In February, the ASI added known epic-level functional dependencies within the Aha tool for Releases 0.4 and 0.5. Release 0.6 and 0.7 dependencies have not been added to Aha. The ASI maintained that further changes to the dependencies or the critical path will not be applied to the BI-05 Project Schedule. Based on the ASI's approach, schedule slippage may not be recognized until R0.6, which may delay the project timeline. Dependencies between releases are unclear in MS Project and Aha. IV&V continues to maintain this finding as a high criticality issue and will continue to monitor.	H

Recommendations	Progress
• The ASI, DHS PMO, and BESSD collaboratively review the next layer of detail showing the 'Big Picture', including key milestone dates for each release, the concurrent overlap of releases, and resource allocations across all releases to identify potential additional risks to the project.	Complete
• The functional dependencies are considered and visible in the critical path.	In process
• The ASI provides clarity as to how and why the critical path does not have tasks and activities on it until Release 0.6.	Complete
• The Project Team consider establishing a critical path for each Release in addition to the critical path for the overall project schedule.	Not started

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
62	**Issue – Inability to measure development team velocity.** Velocity is an important metric in Agile development to provide project leadership the ability to forecast the number of iterations needed to complete any remaining work. During this reporting period the subcontractor started to move their Jira cards into Unisys' instance of Jira. This will support the project's ability to track their velocity in upcoming sprints. IV&V retains a high criticality rating for this finding due to the impact on the ASI's ability to forecast the delivery date of the CMM/FMM modules. We will continue to monitor progress on the use of the tool and documenting story point estimation to track and report velocity.	H

Recommendations	Progress
• The ASI work with the subcontractor Scrum Masters to calculate the average velocity from past iterations to be used as a historical reference.	In process
• Moving forward, the development teams should provide the ASI with Sprint and Product Burndown charts at the end of every iteration.	In process
• To calculate velocity, user stories need assigned values (IV&V recommends relative story points). If the developers are not currently assigning values to user stories, IV&V recommends this become common practice.	In process

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
65	**Issue - DHS BESSD knowledgeable staff are needed on the project to ensure the BES solution is designed to meet the business needs and requirements.** In January, DHS added many BESSD staff and is having a positive impact on the project. With the retirement of DHS' BES Project Manager (effective 2/26/2021) and Business Analyst (effective March 31, 2021) a transition plan was developed to support the onboarding of a new BES PM. DHS is taking the following actions: • DHS developed a DHS BES Resource Pool to support future resource needs on the project. • DHS is using a report from the BI-05 Project Schedule focused on the DHS activities and tasks planned to be performed in the next 4 months to provide early visibility to peak DHS resource needs. Additionally, the DHS BESSD Administrator spends 2-3 days per week at the ASI onsite facility to review plans, address issues and conduct follow-up as necessary.	M

Recommendations	Progress
• DHS continue to identify BESSD SME's to support the project as the project progresses.	In process
• DHS develop a project team list that identifies the participants along with their roles and areas of expertise to be used as short-term needs are identified.	Complete
• DHS utilize the BI-4 Project Schedule report developed by the ASI to identify those tasks owned by DHS in the short team in addition to the 4-month look-ahead to identify time frames and activities where there is a high-demand on DHS resources.	Complete
• Identify and on-board a replacement BES Project Manager.	In process

IV&V Findings and Recommendations

Integration and Interface Management

#	Key Findings	Criticality Rating
60	**Risk – System Integration of the BES Modules (CMM, FMM, SSP) will be developed in the later releases vs. a continuous integration model within each release which may cause schedule delays.** No major updates in this reporting period. Recommendations stand as written.	H

Recommendations	Progress
• Prioritize the build of integration points within each module and the creation of scripts (API calls) required for integration.	In process
• Each release demo should be a collaborative effort across all modules (end-to-end solution) and verified against system-level requirements.	Not started
• If the ASI needs all the remaining releases to demonstrate an end-to-end solution of the identified business processes across all modules, IV&V recommends planning and communicating the mitigation strategy for handling risks associated with a 'big bang' release.	Not started

IV&V Findings and Recommendations

Integration and Interface Management

#	Key Findings	Criticality Rating
63	**Risk – The Project's approach to planning, coordination and developing system interfaces may impact effective data sharing.** The ASI continued interface planning, coordination and system development efforts in February. The ASI plans to continue to update the interface documentation including the communication plan and add detail to the schedule in March. IV&V will continue to monitor.	H

Recommendations	Progress
• Establish a communication plan for each interface partner for the duration of the BES DDI activities.	In process
• Define a detailed schedule for each interface to include milestone dates, coordination, and execution and share with the interface partners.	In process
• Determine which deliverable will include the details associated with the planned connectivity and detailed technical designs of all interfaces.	In process

IV&V Findings and Recommendations

Configuration and Development

#	Key Findings	Criticality Rating
16	**Issue – Lack of clear understanding of the DDI approach may reduce effectiveness of all SDLC Processes.** The ASI has stated their intention to reconcile the differences in approach between their 2 software development teams (Unisys India and subcontractor) and increase DHS' understanding of the SDLC approach. While some key DHS SMEs appear to have a good understanding of the ASI methodology/approach others, including some of the new product owners, may not. Lack of an understanding of the project methodology/approach may reduce SME effectiveness and ability to make informed decisions.	(M)

Recommendations	Progress
• ASI provide an additional DDI approach overview session for new project team members and allow time for Q/A.	In process
• ASI provide DDI approach documentation/materials for stakeholders to review and/or refresh their knowledge on demand; the materials could be made available via the project SharePoint.	In process
• Encourage ASI and DHS testers to consistently collaborate during SIT and UAT activities.	In process

IV&V Findings and Recommendations

System Design

#	Key Findings	Criticality Rating
38	**Issue – Due to the sequencing of JADs addressing Workflow at the end instead of during current JAD sessions, the project could be faced with significant design rework, which may result in schedule delays, and impact the quality of solution design.** Recent workflow JAD sessions appear to have improved the project's understanding of how workflows will be integrated into existing designs. Also, the ASI has begun leveraging features of their new collaboration tools (e.g., Confluence) that appear to be increasing the productivity of some work sessions. Therefore, IV&V has lowered this criticality rating to 'Low'. IV&V remains concerned than designs could still be less that optimal given that early JAD sessions had deferred workflow discussions until now.	L

Recommendations	Progress
• ASI to quickly define how the workflow/task functionality will flow and provide training to the facilitators.	In process
• Introduce Workflow SME's to review workflow/task functionality and integrate into systems designs with input from DHS.	In process

IV&V Findings and Recommendations

Deployment

#	Key Findings	Criticality Rating
40	**Risk - The planning and approach of the ASI Release Management practices were identified as an area to improve during early releases.** IV&V continued to see improvement in the management of releases during February. Release management is a topic in status meetings and monthly release-specific meetings are being conducted. IV&V will continue to monitor through R0.4, which is more complex and includes a larger scope, multiple delivery teams, component integrations, etc.	(L)

Recommendations	Progress
• Assign a Release Manager to manage all details of planned releases.	Complete
• Develop a Release Plan document for each release, that provides details of the planned release and all associated configuration items, clear assignments for all staff involved in all tasks, a schedule for completion of all tasks and activities, planned release status communications, and back out procedures should they be necessary.	Complete
• Ensure that release planning includes all deliverables within a release, in addition to the software development efforts.	Complete
• Update the Release 0.1 and 0.2 Lessons Learned action plans to include milestone and due dates.	Complete

IV&V Status

IV&V Engagement Status

IV&V Engagement Area	Dec	Jan	Feb	Comments
IV&V Budget	🟢	🟢	🟢	
IV&V Schedule	🟢	🟢	🟢	
IV&V Deliverables	🟢	🟢	🟢	PCG submitted the final January IV&V Monthly Status Report.
Centers for Medicare and Medicaid Services (CMS) IV&V Progress Reports	🟢	🟢	🟢	The first quarterly CMS Eligibility and Enrollment (E&E) IV&V Progress Report is on hold until IV&V and DHS determine the appropriate time to submit the report.
CMS Milestone Reviews	🟢	🟢	🟢	The first CMS Milestone Review date has not yet been determined.
IV&V Staffing	🟢	🟢	🟢	
IV&V Scope	🟢	🟢	🟢	Presented the PCG proposal to DHS for the CCWIS Project and PCG received approval to move forward to conduct the CCWIS Staffing Assessment.

Engagement Rating Legend		
🟢 The engagement area is within acceptable parameters.	🟡 The engagement area is somewhat outside acceptable parameters.	🔴 The engagement area poses a significant risk to the IV&V project quality and requires immediate attention.

IV&V Activities

- IV&V activities in the February reporting period:
  - Completed – January Monthly Status Report
  - Ongoing – Review the BES Project Artifacts and Deliverables
  - Ongoing – Attend BES project meetings, (see Additional Inputs pages for details)
  - Reviewed available ASI Original Contract and BES Optimization contract amendment documentation

- Planned IV&V activities for the March reporting period:
  - Ongoing – Observe BES Development, JAD and Workgroup sessions as scheduled
  - Ongoing – Observe Weekly Project Status meetings
  - Ongoing – Observe Weekly Architecture meetings
  - Ongoing – Observe Weekly/Monthly Security meetings
  - Ongoing – Observe Agile Development meetings
  - Ongoing – Monthly IV&V findings meetings with the ASI
  - Ongoing – Monthly IV&V Draft Report Review with DHS, ETS and ASI
  - Ongoing – Participate in weekly DHS and IV&V Touch Base meetings
  - Ongoing – Review BES artifacts and deliverables

Deliverables Reviewed

Deliverable Name	Deliverable Date	Version
BI-11 Data Integration and Interface Design Document (BESSD Interfaces	2/19/2021	Draft
R0.3 BI-14 CF Alerts and Notifications and OPA Food, Financial Rules Mgmt Walk-through	02/05/2021	Draft
R0.3 BI-15 Fully Configured and Developed System	01/28/2021	Draft
BI-10 Release 0.3 SSP - Application Management	2/16/2021	1.8
BI-14 Release 0.3 Technology Design Documents SSP	2/8/2021	1.4
BI-10 Release 0.3 SSP - Application Management	2/5/2021	1.5
BI-10 Release 0.3 CF - Alerts and Notifications	1/28/2021	1.8

Additional Inputs – Artifacts

Deliverable Name	Artifact Date	Version
Unisys Contract Amendment 3	4/17/2020	N/A
2019-11-22 HI Test Plan - FNS Comments.xlsx	11/22/2019	N/A
FNS Handbook 901	01/2020	V2.4
BES Risks and Issues Log	02/03/2021 02/10/2021 02/17/2021 02/24/2021	BES Risks and Issues Log
BES Weekly Schedule (BI-5)	02/02/2021 02/09/2021 02/16/2021 02/23/2021	N/A
BES Weekly Status Report	02/03/2021 02/10/2021 02/17/2021 02/24/2021	N/A
BI-12 Architectural Overview	11/25/2020	1.6
FTI Secure Enclave TDD	02/22/2021	N/A

Additional Inputs – Artifacts

Deliverable Name	Artifact Date	Version
Java Coding Standards	12/30/2020	N/A
Release 0.1 BI-21 RTMs	10/20/2020	0.1
Release 0.1 FMM Test Cases	N/A	0.1
Release 0.1 Requirements, Epics, and Use Cases	02/09/2021	0.1
Release 0.1 SSP Test Cases	N/A	0.1
Release 0.2 BI-21 RTMs	01/13/2021	0.2
Release 0.2 CMM Test Cases	N/A	0.2
Release 0.2 Codebase	01/11/2021	0.2
Release 0.2 FMM Test Cases	N/A	0.2
Release 0.2 Requirements, Epics, and Use Cases	02/23/2021	0.2
Release 0.2 SSP Test Cases	N/A	0.2

Additional Inputs – Artifacts

Deliverable Name	Artifact Date	Version
Release 0.3 BI-10 SSP - Application Management	02/16/2021	0.3
Release 0.3 BI-14 CF Alerts and Notifications and OPA Food, Financial Rules Mgmt	02/05/2021	0.3
Release 0.3 BI-14 Technology Design Documents SSP	02/08/2021	0.3
Release 0.3 BI-15 Fully Configured and Developed System	01/28/2021	0.3
Release 0.4 BI-10 SSP - Case Management	02/18/2021	0.4
Release 0.4 BI-11 BESSD Interfaces	02/19/2021	0.4
SonarQube Screenshots	09/22/2020	0.2
October 2020 CCWIS Project Status Report	10/2020	N/A
November 2020 CCWIS Project Status Report	11/2020	N/A
December 2020 CCWIS Project Status Report	12/2020	N/A
January 2021 CCWIS Project Status Report	1/2021	N/A

Additional Inputs

Meetings and/or Sessions Attended/Observed:

1. PCG Internal BES Project Meetings x8 (02/01/2021, 02/04/2021, 02/04/2021, 02/09/2021, 02/16/2021, 02/17/2021, 02/18/2021, 02/22/2021, 02/25/2021)
2. BESSD PM Team, IV&V Weekly Meeting x4 (02/03/2021, 02/10/2021, 02/17/2021, 02/24/2021)
3. BES Status Meetings x4 (02/03/2021, 02/10/2021, 02/17/2021, 02/24/2021)
4. BES Development Standup Meetings x4 (02/03/2021, 02/10/2021, 02/17/2021, 02/24/2021)
5. BES Schedule Review Meetings x4 (02/02/2021, 02/09/2021, 02/16/2021)
6. Weekly SIT Status Meetings x4 (02/04/2021, 02/04/2021, 02/11/2021, 02/19/2021)
7. ASI/IV&V Touch Base x2 (02/16/2021, 02/18/2021)
8. BES Implementation Planning Meetings x3 (02/08/2021,02/16/2021, 02/23/2021)
9. BES CCB meeting (02/03/2021)
10. BES Functional Meeting (02/02/2021)
11. BES SSP Sprint Demos x2 (02/01/2021, 02/16/2021)
12. BES SSP Backlog Meetings x2 (02/11/2021, 02/17/2021)
13. R0.5 Eligibility JAD x2 (02/01/2021, 02/08/2021)
14. R0.5 FMM Working Sessions (02/11/2021, 02/22/2021)
15. R0.3 Review and validate release – CF Alerts & Notifications meeting 02/02/2021
16. R0.3 Review and validate release – SSP Application Management meeting 02/02/2021
17. R0.4 Prototype Review: CF – Scheduling meeting (02/04/2021)
18. R0.4 Prototype Review: CMM - Case Notes & Standardize Address meeting (02/09/2021)
19. R0.4 Prototype Review: CMM Application Registration meeting (02/11/2021)
20. Confluence Lunch and Learn meeting (02/19/2021)
21. Implementation Successes with Indiana meeting (02/23/2021)
22. R0.4 BI-10 Walk-through - SSP Case Management Part 2 meeting (02/23/2021)
23. R0.4 Checkpoint meeting 02/25/2021)

Additional Inputs - Continued

Meetings and/or Sessions Attended/Observed:

24. Bi-weekly Sprint Demo | SSP x2(02/01/2021,02/15/2021)
25. Weekly DHS DDI Architecture Review Meeting x4 (02/03/2021, 02/11/2021 (Rescheduled), 02/17/2021, 02/24/2021)
26. Monthly BES Sprint Demo - 02/12/2021
27. HI BES Code Review -02/10/2021
28. RTM Discussion with Unisys - 2/11/2021
29. DHS/IV&V – Meeting to review CCWIS Proposal – 02/22/2021
30. Weekly Platform Security Status Meeting x2(2/4/2021, 2/18/2021)

Appendices

Appendix A – IV&V Criticality Ratings

Criticality Rating	Definition
H	A high rating is assigned if there is a possibility of substantial impact to product quality, scope, cost, or schedule. A major disruption is likely, and the consequences would be unacceptable. A different approach is required. Mitigation strategies should be evaluated and acted upon immediately.
M	A medium rating is assigned if there is a possibility of moderate impact to product quality, scope, cost, or schedule. Some disruption is likely, and a different approach may be required. Mitigation strategies should be evaluated and implemented as soon as feasible.
L	A low rating is assigned if there is a possibility of slight impact to product quality, scope, cost, or schedule. Minimal disruption is likely, and some oversight is most likely needed to ensure that the risk remains low. Mitigation strategies should be considered for implementation when possible.

Appendix B – Findings Log

- The complete Findings Log for the BES Project is provided in a separate file.

Appendix C – Acronyms and Glossary

Acronym	Definition
APD	Advance Planning Document
ASI	Application System Integrator
BES	Benefits Eligibility Solution
CCWIS	Comprehensive Child Welfare Information System
CM	Configuration Management
CMMI	Capability Maturity Model Integration
CMS	Center for Medicare and Medicaid Services
CR	Change Request
DDI	Design, Development and Implementation
DED	Deliverable Expectation Document
DHS	Hawaii Department of Human Services
DLV	Deliverable
E&E	Eligibility and Enrollment
EA	Enterprise Architecture
ECM	Enterprise Content Management (FileNet and DataCap)
ESI	Enterprise System Integrator (Platform Vendor)
ETS	State of Hawaii Office of Enterprise Technology Services
FIPS	Federal Information Processing Standard
HIPAA	Health Information Portability and Accountability Act of 1996
IDM	Identity and Access Management (from KOLEA to State Hub)
IEEE	Institute of Electrical and Electronics Engineers
IES	Integrated Eligibility Solution
ITIL	Information Technology Infrastructure Library

Appendix C – Acronyms and Glossary

Acronym	Definition
IV&V	Independent Verification and Validation
KOLEA	Kauhale On-Line Eligibility Assistance
M&O	Maintenance & Operations
MEELC	Medicaid Eligibility and Enrollment Life Cycle
MEET	Medicaid Eligibility and Enrollment Toolkit
MOU	Memorandum of Understanding
MQD	Hawaii Department of Human Services MedQuest Division
NIST	National Institute of Standards and Technology
OE	Operating Environment
OIT	Department of Human Services Office of Information Technology
PIP	Performance/Process Improvement Plan
PMBOK®	Project Management Body of Knowledge
PMI	Project Management Institute
PMO	Project/Program Management Office
PMP	Project Management Plan
QA	Quality Assurance
QM	Quality Management
RFP	Request for Proposal
ROM	Rough Order of Magnitude
RMP	Requirements Management Plan
RTM	Requirements Traceability Matrix
SEI	Software Engineering Institute
SLA	Service-Level Agreement
SME	Subject Matter Expert

Appendix C – Acronyms and Glossary

Acronym	Definition
SOA	Service Oriented Architecture
SOW	Statement of Work, Scope of Work
VVP	Software Verification and Validation Plan
XLC	Expedited Life Cycle

Appendix D – Background Information

Systems Modernization Project

The DHS Enterprise Program Roadmap includes contracting with three separate vendors with the following high-level scope:

- ESI or Platform Vendor – responsible for the shared technology and services required for multiple Application vendors to implement and support functionality that leverages the DHS Enterprise Platform.

- ASI or ASI Vendor – responsible for the DDI of the Benefits Eligibility Solution (BES Project) enhancing the currently implemented Medicaid E&E Solution (KOLEA) and providing support for the combined Solutions.

- CCWIS Vendor – responsible for the DDI of the CCWIS Solution to meet the needs of child welfare services and adult protective services (CCWIS Project) and providing support for the Solution.

Systems Modernization IV&V Project

IV&V performs objective assessments of the design, development/configuration and implementation (DDI) of DHS' System Modernization Projects. DHS has identified three high-risk areas where IV&V services are required:

- Transition of M&O from DHS' incumbent vendor to the ESI and ASI vendors

- BES DDI

- CCWIS DDI

On the BES DDI Project, IV&V is responsible for:

- Evaluating efforts performed by the Project (processes, methods, activities) for consistency with federal requirements and industry best practices and standards

- Reviewing or validating the work effort performed and deliverables produced by the ASI vendor as well as that of DHS to ensure alignment with project requirements

- Anticipating project risks, monitoring project issues and risks, and recommending potential risk mitigation strategies and issue resolutions throughout the project's life cycle

- Developing and providing independent project oversight reports to DHS, ASI vendors, State of Hawaii Office of Enterprise Technology Services (ETS) and DHS' Federal partners

Appendix D – Background Information

What is Independent Verification and Validation (IV&V)?

- Oversight by an independent third party that assesses the project against industry standards to provide an unbiased view to stakeholders

- The goal of IV&V is to help the State get the solution they want based on requirements and have it built according to best practices

- IV&V helps improve design visibility and traceability and identifies (potential) problems early

- IV&V objectively identifies risks and communicates to project leadership for risk management

PCG's Eclipse IV&V® Technical Assessment Methodology

- Consists of a 4-part process made up of the following areas:

    1. **Discovery** – Discovery consists of reviewing documentation, work products and deliverables, interviewing project team members, and determining applicable standards, best practices and tools.

    2. **Research and Analysis** – Research and analysis is conducted in order to form an objective opinion.

    3. **Clarification** – Clarification from project team members is sought to ensure agreement and concurrence of facts between the State, the Vendor, and PCG.

    4. **Delivery of Findings** – Findings, observations, and risk assessments are documented in this monthly report and the accompanying Findings and Recommendations log. These documents are then shared with project leadership on both the State and Vendor side for them to consider and take appropriate action on.

IV&V Assessment Categories for the BES Project

- Project Management
- Requirements Analysis & Management
- System Design
- Configuration and Development
- Integration and Interface Management

- Security and Privacy
- Testing
- OCM and Knowledge Transfer
- Pilot Test Deployment
- Deployment

Solutions that Matter

Finding Number	Title	Reporter	Finding Type	Identified Date	Category	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Date Retired
65	DHS BESSD knowledgeable staff are needed on the project to ensure the BES solution is designed to meet the business needs and requirements	Jolene	Finding - Risk	3/2/2021	Project Management	ASAP	3	3	Med	Open	
63	The Project's approach to planning, coordination and developing system interfaces may impact effective data sharing.	Al Pangelinan	Finding - Risk	1/21/2021	Integration and Interface Management	Q4 2021	5	4	High	Open	
62	Inability to measure development team velocity.	John	Finding - Issue	12/28/2020	Project Management	?	4	4	High	Open	
61	Poorly planned and executed JAD sessions may lead to rework and cause schedule delays.	Brad	Concern	11/30/2020	System Design	ASAP	2	2	Low	Open	11/30/2020
60	System Integration of the BES Modules (CMM, PMM, SSP) will be developed in the later releases vs. a continuous integration model within each release which may cause schedule delays.	John	Finding - Risk	9/30/2020	Integration and Interface Management	N/A	4	4	High	Open	
59	The approach used to identify release and functional dependencies may limit the projects' ability to identify and mitigate schedule slippage early.	Darren	Finding - Issue	9/30/2020	Project Management	Q4 2020	4	4	High	Open	
58	The Data Conversion effort lacks Leadership, consistency in Data Governance, and effective communications which may impact the schedule.	Darren	Finding - Risk	9/30/2020	Project Management	Q4 2020	3	2	Med	Open	

#	Finding/Risk	Owner	Type		Category	Description						Priority	Impact	Severity	Status	Status/Update
54	User Acceptance Testing (UAT) processes could lead to implementation delays and delivery of a solution that does not meet business needs or requirements.	Brad	Finding - Risk	6/24/2020	Project Management						Immediately	3	1	Low	Open	
49	Poor quality project deliverables may impact system design, testing artifacts and the project schedule.	Darren	Finding - Issue	4/16/2020	Project Management						Immediate	2	2	Low	Open	
48	The CMS Outcomes-Based Certification Requirements have not been published by CMS, which may impact the project schedule and funding.	Jolene	Finding - Risk	3/30/2020	Project Management						Prior to Functional and Technical Requirement Approval.	3	3	Med	Open	
47	The COVID-19 pandemic and the related "stay at home" order could hinder project activities and negatively impact the project schedule and budget.	mfors	Finding - Risk	3/29/2020	Project Management						ASAP	2	3	Med	Open	
43	DHS PMO project team members have transitioned off the project, which may cause gaps in knowledge transfer and leadership on the project.	Jolene	Finding - Issue	1/10/2020	Project Management						ASAP	5	4	High	Open	
42	Project delays and disruption in DHS operations may occur if ASI communications with DHS regarding key (urgent/time sensitive) project information does not improve.	Brad	Finding - Risk	10/28/2019	Project Management						ASAP	3	2	Med	Open	

ID	Finding	Owner	Type	Date	Category			Sev	Sev	Rating	Status
40	The planning and approach of the ASI Release Management practices were identified as an area to improve during early releases.	Darren	Finding - Risk	9/23/2019	Deployment		OCT 2019	2	2	Low	Open
38	Due to the sequencing of JADs addressing Workflow at the end and instead of during current JAD sessions, the project could be faced with significant design rework, which may result in schedule delays, and impact the quality of solution design.	mfaro	Finding - Issue	8/29/2019	System Design		ASAP	2	2	Low	Open
29	Uncertainty and/or a lack of communication around long term architecture decisions could impact the project budget, schedule, system design, and planning decisions.	mfaro	Finding - Issue	5/28/2019	Project Management		ASAP	2	2	Low	Open
16	Lack of clear understanding of the DDI approach may reduce effectiveness of all SDLC Processes.	mfaro	Finding - Issue	12/17/2018	Configuration and Development		1/31/19	3	3	Med	Open
2	Late delivery of project deliverables may cause schedule delays.	Jolene	Finding - Issue	11/28/2018	Project Management		TBD	4	5	High	Open