OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

November 24, 2020

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

The Honorable Scott K. Saiki,
  Speaker, and
   Members of The House of Representatives
Thirtieth 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 (Nov 25, 2020 16:34 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: October 1 - 31, 2020

Submitted: November 11, 2020

PUBLIC CONSULTING GROUP

Solutions that Matter

Overview

- <u>Executive Summary</u>

- <u>IV&V Findings and Recommendations</u>

- <u>IV&V Engagement Status</u>

- <u>Appendices</u>
    - <u>A – IV&V Criticality Ratings</u>
    - <u>B – Risk Identification Report</u>
    - <u>C – Acronyms and Glossary</u>
    - <u>D – Background Information</u>

PUBLIC
CONSULTING GROUP

Solutions that Matter

Executive Summary

Executive Summary

In October, the project team continued to work on several BES Releases and project activities. Challenges persist in communications, schedule management, the project approach and DHS staffing. As examples, the approach to scheduling and managing high-level activities in MS-Project with additional detail in the Aha tool has not proven to be effective. Although the Solution Optimization contract amendment was signed in April 2020, the project team does not fully understand how to use the new tools or how the solution will be implemented. A lack of planning and communication is evident, yet limited actions have been taken to address these risks and issues. While shifting the development work from Waterfall to Agile allows flexibility to manage the timing of the requirements development/testing processes, it also requires a keen focus on planning and communication – prevailing concerns on this project since inception.

This month, DHS initiated discussions with the ASI to improve communications including the alignment of DHS BESSD staff to jointly lead as product owners with the ASI, but the approach has not yet been finalized. DHS and the ASI agreed to continue the Pilot Deliverable Review and Approval process for Deliverables under review this calendar year. IV&V notes, process metrics were not presented to factually determine the effectiveness of the pilot but, the project team agreed the Pilot process should continue.

Although IV&V has reported communication challenges on the project, significant communication and collaboration improvement was observed specifically by the Release 0.2 DHS/ASI UAT team. Daily and weekly status meetings were effectively facilitated, focusing on the current tasks and defect management. The UAT team demonstrated agility by redirecting testing activities as needed throughout the process. If the project team could replicate this collaboration across the project team, develop a fully planned schedule, clearly communicate the approach and provide the necessary staff to complete the work, this may minimize the risk of further delays or cost increases.

Aug	Sept	Oct	Category	IV&V Observations
H	H	H	Project Management	The Project Management category continues to represent most of the IV&V findings, which consist of risks and issues specific to the project schedule, solution architecture, quality of project artifacts, communications, roles and responsibilities and DHS staffing.

Executive Summary

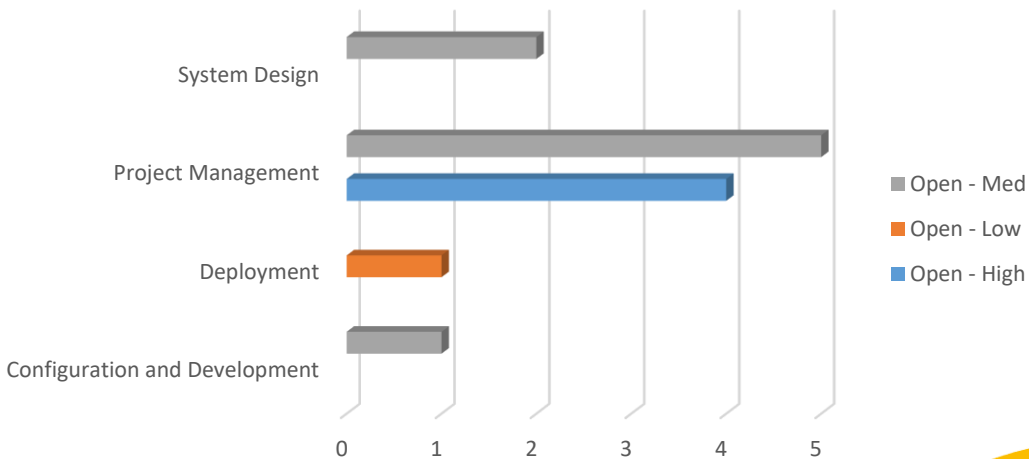| Aug	Sept	Oct	Category	IV&V Observations
H	M	M	System Design	No major change in this reporting period, the draft architecture deliverables were available this month to the project team and the weekly architecture project meetings was expanded to include IV&V team members. Both of which are providing visibility to the planned BES architecture.
L	L	L	Deployment	There are no material changes to this category in this reporting period. Several Release Management improvements were identified during early M&O and Release 0.1, which the project team applied many of them for Release 0.2 and is planning to apply the remainder in future releases.
L	L	N/A	Requirements Analysis & Management	The single finding in this category related to breaking down the project's functional requirements to eliminate 'partially met' requirements was retired in October; there are no open findings in this category.
M	M	M	Configuration and Development	The project team is still attempting to understand the ASI's development approach. DHS did gain more insight as the ASI further defined the architecture, reviewed some of the Release 2.0 deliverables, and UAT testing in October also identified needed details.

IV&V Findings and Recommendations

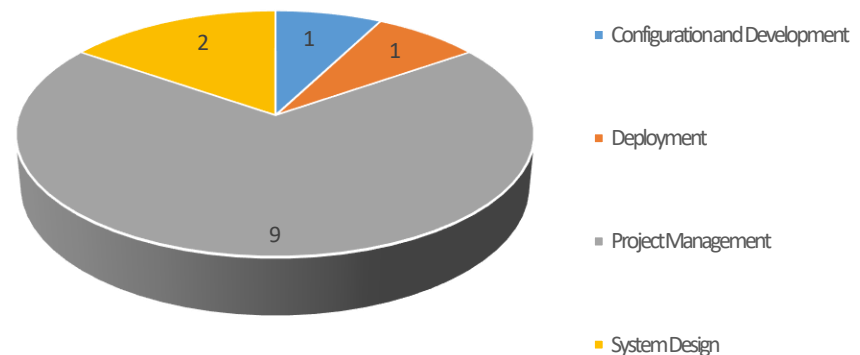# IV&V Findings and Recommendations

As of the October 2020 reporting period, PCG is tracking 13 open findings (7 risks and 6 issues) and has retired a total of 40 findings. Of the 13 open findings, 9 are related to Project Management, 2 in System Design and 1 each in Configuration and Development, and Deployment.
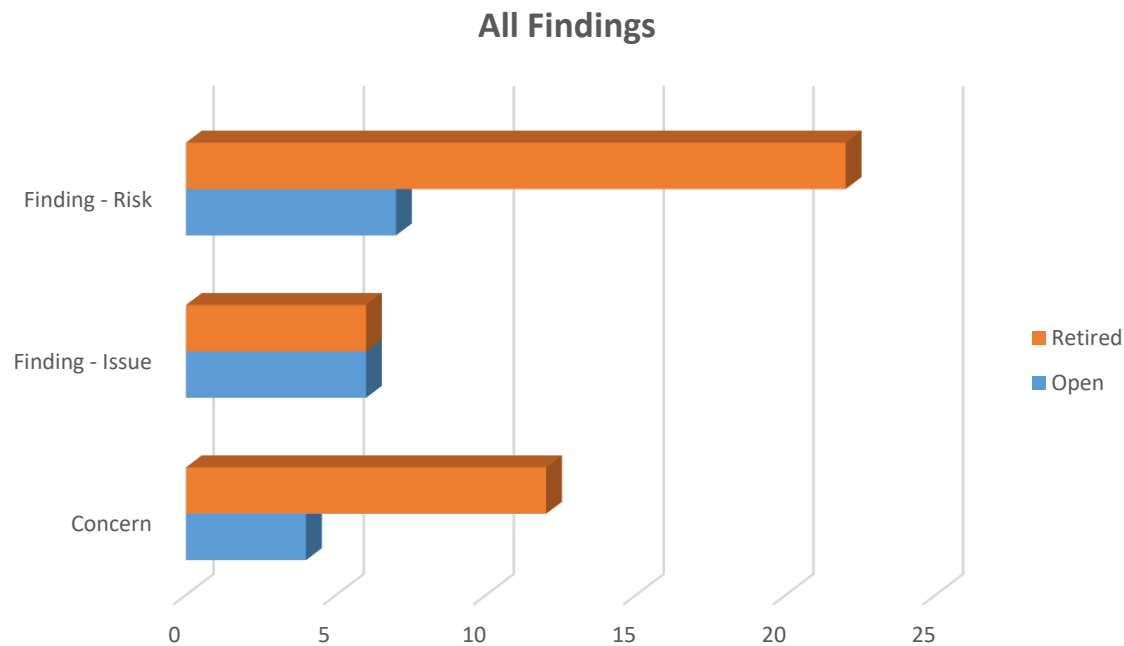

Open Risks & Issues

Legend:
- Open - Med
- Open - Low
- Open - High

Open Risks & Issues by Category

Legend:
- Configuration and Development
- Deployment
- Project Management
- System Design

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 risks or issues were opened during this reporting period.	

IV&V Findings and Recommendations

Findings Retired During the Reporting Period

#	Finding	Category
41	**Risk - Due to a lack of clarity regarding "Partially Met" requirements in design artifacts, full traceability of requirements may be hampered, and all requirements may not be fully met.** The ASI and DHS agreed that requirement splitting will occur during scheduled requirement validation activities within each Release. Therefore, IV&V is retiring this finding.	Requirements Analysis and Management

IV&V Findings and Recommendations

Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
55	**Test Case creation without functionality acceptance from JAD/JAR sessions**. IV&V is researching how the JAD results, including acceptance criteria, are carried over or linked to use cases and testing processes. This concern was discussed with the ASI who indicated they may resend the JAD documentation to all JAD participants and work with DHS to validate the BES design decision process along with improved communications. IV&V will follow-up with DHS and the ASI during the next reporting period.	Project Management
58	**The Data Conversion effort lacks leadership, consistency in Data Governance, and effective communications**. The Data Conversion effort continues to lack leadership for both the ASI and DHS, resulting in communication and decision gaps. IV&V will continue to monitor this finding.	Project Management
59	**The Project's Critical Path does not include release / functionality dependencies**. The Project's Critical Path does not include release / functionality dependencies, resulting in most tasks and activities not being on the critical path until R0.6. This concern was discussed with DHS and the ASI, who took an action item to assess and provide a plan of action by 10/27/20, which was subsequently extended to (11/10/20).	Project Management
60	**Integration of the BES Modules (CMM, FMM, SSP) is planned for later releases vs. continuously integrating the modules within each release**. The integration between the BES modules is planned to start during release 0.4. Although the ASI stated they cannot integrate the modules any earlier, IV&V continues to recommend an integrated end-to-end solution as early as possible to minimize risk.	Integration and Interface Management

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
2	**Issue – Late Delivery of project deliverables may result in schedule delays**. The BI-5 Project Schedule has not been re-baselined to accommodate new tasks and outstanding action items that are expected to impact the schedule. Some work products and deliverables were delivered on-time and some late (e.g. Security Plan, Architecture and Functional Design Documents). DHS logged a new action item in this reporting period (#1041) for the ASI to explain the trend of schedule delays. An initial session was conducted, and a follow-up session is planned. The ability of the project team to identify and effectively mitigate schedule risks has not been demonstrated in the smaller, less complex releases. With the increase of size and complexity in the future releases, IV&V retains this as a high-criticality rating.	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).	Not started

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 lead to unexpected impacts to the project budget, schedule, system design, and planning decisions.** The Project Architecture meetings continue to be productive. The ASI has stated that the project team is being updated regularly on architecture topics and decisions that impact the project.	M

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.	In process
• DHS should finalize the Portal strategy and communicate the strategy with the stakeholders and project teams.	Complete
• 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.	In process

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.** The project continues to experience communication issues. Examples that occurred during this reporting period include: • DHS was not aware that the development tools used by eWorld and Unisys are hosted in different instances (i.e., the configuration of the tools may be different). • DHS learned this month that the ASI is utilizing the "stubbing process", (minimal build-out of some functionality), which may require the test teams (SIT and UAT) to re-test functionality as the code is further developed in future releases.	H

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.	In process
• DHS work with the ASI to remove barriers of communication between the DHS stakeholders and the development team.	Not started
• 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.	In process

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
43	**Issue - Due to key DHS and BES Project Team members departing and/or transitioning from the project, succession planning and knowledge transfer is needed to ensure there are no gaps in knowledge and leadership on the project**. There is no material update to this finding during this reporting period. As reported last month, the lack of DHS staff to support the BES project is negatively impacting the engagement. It is critical that additional staff be made available to work on the project to include managing the ASI contractual requirements.	H

Recommendations	Progress
• The state should develop a transition plan for the project and PMO resources as identified in the RFP, which includes DHS PMO and DHS DDI resources (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.** Because BESSD's ability to provide resources to the project has been hindered due to COVID-19, BESSD SME input on finalized designs has been limited and DHS has elected to rely on ASI resources to be the product owner/managers.	**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).	In process
• 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.	In process

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.	Ⓜ

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 lead to rework and negatively impact the system design, testing artifacts and project schedule.** The ASI submitted multiple deliverables during October. While most deliverables supported Release 0.2, some were also submitted for Releases 0.1 and 0.3. As evidenced by the varying number of comments provided on each deliverable, quality across the deliverables was inconsistent. The ASI and DHS agreed to continue the 'Pilot Process' for deliverable reviews in R0.3 through the end of the calendar year. IV&V notes that while the ASI stated that the revised process has not resulted in bringing the schedule in, it has prevented a potential four-month schedule delay.	M

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 Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
54	**Risk – Poorly planned and executed UAT could lead to implementation delays and delivery of a solution that may not meet all business needs.** The UAT process for Release 0.2 improved from Release 0.1; from preparation to execution it was well facilitated by both the ASI and DHS leads. Many of the issues raised in Release 0.1 Lessons Learned were addressed, including UAT preparation and training on the testing tools. The IV&V team observed the execution and facilitation of Release 0.2 UAT as a positive collaborative approach by DHS and the ASI. Therefore, IV&V has changed the priority from a High to Medium.	M

Recommendations	Progress
• The ASI further develop the action plan to include owners and target complete dates. Report progress in the weekly status meeting.	In process
• 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.	In process

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
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.** DHS and IV&V did not note improvement in the communication between DHS and the Product Owner/Manager in this reporting period. DHS' direct engagement with the BES development team to identify potential defects early will likely avoid rework and risk to the project. DHS initiated a discussion with the ASI and are identifying changes to improve the communication.	H

Recommendations	Progress
• Identify and execute to the communication path agreed to by DHS/ASI between the Product Managers and Product Owners and DHS/BESSD.	In process
• The ASI to clearly define the staff assigned and the roles and responsibilities of the ASI Product Managers and Product Owners.	In process
• DHS consider adding staff to the project team with 'deep' BESSD business knowledge to work hand-in-hand with the product owners and development team.	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.** Minimal progress was made in October to provide DHS an understanding of the approach to develop the BES system and use of the new SDLC tools. DHS remains unclear on the approach for data conversion and the ASI has few answers as to why the data conversion efforts have, thus far, been unproductive. Further, the projects approach for utilizing the newly introduced ALM tools remains unclear to DHS and IV&V. The ASI has stated that merging their subcontractors' instance of Jira with their own may not be feasible.	M

Recommendations	Progress
• 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.	Not started
• 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	**Risk – 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.** No material update for this reporting period, the JAD sessions are planned to start in Release 0.4.	M

Recommendations	Progress
• The ASI to define how the workflow/task functionality will be refined and integrated into the system designs. Communicate this approach with the project team and train the Business Analyst session facilitators.	In process

IV&V Findings and Recommendations

System Design

#	Key Findings	Criticality Rating
53	**Issue – The System Architecture documentation is scheduled for completion after multiple releases are in development, and some releases are already completed.** No major update in this reporting period. Regular architecture meetings continue where architecture decisions are made between DHS leadership and the ASI architecture team. IV&V will continue to monitor the current architecture documentation process to validate its effectiveness towards making and communicating architecture decisions to the development team.	M

Recommendations	Progress
• Recommend completing and approving the BI-12 System Architecture deliverable prior to development of source code.	In process
• If completing the BI-12 deliverable prior to development of code is not possible for any reason, ensure that all portions of the architecture that are directly or indirectly related to the source code development efforts, standards, and processes be submitted for approval by DHS in draft form prior to code development, and subsequently followed up with final completion of BI-12 in accordance with the project schedule.	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.** As of the end of October: • Releases 0.1, 0.2, 0.3, and 0.4 are in progress • Release 0.1 deliverables are still being finalized • Release 0.2 deliverables and UAT are in progress • Release 0.3 deliverables are under way and development has commenced • Release 0.4 planning tasks began. Although UAT for Release 0.1 was completed in early July, the last deliverables have not yet been accepted after almost 3 months. Release planning continues to need to account for the deliverables associated with a release in addition to the software development activities within the planned duration and timeframes of any given release. The Release 0.1 Lessons Learned action plan was updated to indicate the planned release for the actions however, owners have not been documented for each action item.	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.	In process
• Update the Release 0.1 Lessons Learned action plan to include owners and due dates.	In process

IV&V Status

IV&V Engagement Status

IV&V Engagement Area	Aug	Sept	Oct	Comments
IV&V Budget	🟢	🟢	🟢	
IV&V Schedule	🟢	🟢	🟢	
IV&V Deliverables	🟢	🟢	🟢	PCG submitted the final September 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	🟢	🟢	🟢	

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 October reporting period:
    - Completed – September Monthly Status Report
    - Ongoing – Review the BES Project Artifacts and Deliverables
    - Ongoing – Attend ASI 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 November 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-02 Project Status Report Deliverable	Weekly as delivered	N/A
BI-05 Schedule	Weekly as delivered	N/A
BI-21 R0.2 Updated and Completed Detailed F&T RTM - Resubmission	10/30/2020	1.3
BI-14 Release 0.2 Technology Design Documents SSP - Resubmission	10/28/2020	1.4
Java Coding Standards - Resubmission	10/28/2020	1.6
BI-22 Release 0.2 System Test Report - Resubmission	10/26/2020	1.6
BI-14 Release 0.2 Technology Design Document CMM - Resubmission	10/26/2020	1.3
BI-17 – R 0.2 Validated Results of Data Conversion Testing	10/26/2020	1.0
BI-12 FMM System Architecture - Resubmission	10/22/2020	1.9
BI-14 Release 0.1 TDD SSP - Resubmission	10/22/2020	1.9
BI-10 Release 0.2 SSP - Pre-Screening and Accounts Management	10/22/2020	1.7
BI-14 Release 0.1 Technology Design Document FMM - Resubmission	10/22/2020	1.8
BI-21 R0.2 Updated and Completed Detailed F&T RTM	10/21/2020	1.0

Deliverables Reviewed - Continued

Deliverable Name	Deliverable Date	Version
BI-15 Release 0.2 Fully Configured and Developed System- Resubmission	10/20/2020	1.3
BI-14 Release 0.2 Technology Design Documents SSP	10/20/2020	1.0
BI-20 Release 0.2 Test Scenarios, Cases and Scripts - Resubmission	10/20/2020	1.3
BI-22 Release 0.2 System Test Report - Resubmission	10/19/2020	1.0
BI-14 Release 0.2 Technical Design Document FMM - Resubmission	10/19/2020	1.3
BI-14 Release 0.1 TDD FMM	10/16/2020	1.4
BI-14 Release 0.2 Technology Design Document CMM	10/15/2020	1.0
UI Standards Release 0.1	10/15/2020	1.0
BI-10 Release 0.2 SSP - Screening and Accounts Management - Resubmission	10/14/2020	1.4
BI-14 Release 0.1 TDD SSP - Resubmission	10/13/2020	2.0
BI-15 Release 0.1 Fully Configured and Developed System - Resubmission	10/13/2020	2.0
BI-11 Release 0.2 Data Integration and Interface Design - Resubmission	10/12/2020	BI-11 1.4 ICD - 1.4
BI-14 Release 0.2 Technical Design Document FMM	10/9/2020	1.0

Deliverables Reviewed - Continued

Deliverable Name	Deliverable Date	Version
BI-10 Release 0.2 FMM – Role-Based Access - Resubmission	10/9/2020	1.3
BI-10 Release 0.2 CMM - Client Management - Resubmission	10/9/2020	1.4
BI-15 Release 0.2 Fully Configured and Developed System	10/9/2020	1.0
BI-17 R0.2 Validated Results of Data Conversion Testing	10/8/2020	Draft
BI-22 Release 0.2 System Test Report	10/8/2020	1.0
BI-12 SSP System Architecture	10/8/2020	1.4
BI-20 Release 0.2 Test Scenarios, Cases and Scripts	10/8/2020	1.0
BI-10 Release 0.2 SSP - Pre-Screening and Accounts Management	10/6/2020	1.0
BI-21 - R0.2 Updated and Completed Traceability Matrix Walkthrough	10/6/2020	Draft
BI-11 Release 0.2 Data Integration and Interface Design - Resubmission ICD IF06 US Census Bureau	10/5/2020	0.2 (BI-11) 1.2 (ICD)
BI-12 FMM System Architecture	10/5/2020	1.3
BI-10 Release 0.2 CMM - Client Management - Resubmission	10/1/2020	1.3
BI-10 Release 0.2 FMM – Role-Based Access - Resubmission	10/1/2020	1.3

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	10/05/2020 10/12/2020 10/19/2020 10/26/2020	BES Risks and Issues Log

Additional Inputs

Meetings and/or Sessions Attended/Observed:

1. PCG Internal BES Project Meetings x9 (10/05/2020, 10/08/2020, 10/13/2020, 10/15/2020, 10/19/2020, 10/20/2020, 10/22/2020, 10/26/2020, 10/28/2020)
2. BESSD PM Team, IV&V Weekly Meeting x4 (10/07/2020, 10/14/2020, 10/21/2020, 10/28/2020)
3. BES Status Meetings x4 (10/07/2020, 10/14/2020, 10/21/2020, 10/28/2020)
4. BES Schedule Review Meetings x4 (10/06/2020, 10/13/2020, 10/20/2020, 10/27/2020)
5. BES Functional Meeting x2 (10/13/2020, 10/20/2020)
6. BES Data Conversion Meetings x2 (10/06/2020, 10/20/2020)
7. BES CCB Meeting (10/07/2020)
8. DDI Security Plan DCF comment walkthrough 10/22/2020,
9. Weekly Platform Security Meeting x4 (10/1/2020, 10/8/2020,10/22/2020, 10/29/2020)
10. R0.3 SSP Prototype Review x2 (10/01/2020, 10/08/2020)
11. ASI Touch Base x3 (10/01/2020, 10/20/2020, 10/29/2020)
12. DHS DDI Architecture Review x3 (10/06/2020, 10/13/2020, 10/20/2020)
13. UAT Go / No Go (10/01/2020)
14. R0.3 Common Functions Requirements Validation (10/05/2020)
15. R0.3 CMM - OPA (Food & Financial Management) Requirements Validation (10/12/2020)
16. R0.3 Single Sign-On Requirements Validation (10/15/2020)
17. BI-21 RTM Walkthrough (10/06/2020)
18. BI-21 RTM Spreadsheets Review (10/13/2020)

Additional Inputs - Continued

Meetings and/or Sessions Attended/Observed:

19. SonarQube Walkthrough (10/22/2020)
20. B1-10 Review x2 (10/13/2020, 10/20/2020)
21. BES Development Standup Meeting x6 (10/04/2020,1 0/07/2020, 10/11/2020, 10/14/2020, 10/25/2020, 10/28/2020)
22. FNS TEST/Pilot Discussion (10/14/2020)
23. Enterprise Operations Meeting x2 (10/8/2020, 10/22/2020)
24. Pilot Deliverable Review Process Checkpoint/Lessons Learned (10/15/2020)
25. BES Implementation Planning Meeting x2 (10/5/2020, 10/19/2020)
26. Daily UAT Meetings x19 (Each workday 10/6/2020- 10/30/2020)
27. Weekly UAT Meetings x4 (10/08/2020, 10/15/2020, 10/22/2020, 10/29/2020)
28. IV&V September Report Review (10/08/2020)
29. BI-17 Validated Results of Data Conversion Testing Walkthrough (10/08/2020)
30. BES Sprint Demos x2 (10/12/2020, 10/26/2020)

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	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Date Retired	Status Update	Client Comments	Vendor Comments
60	System integration of the BES Modules (CMM, FMM, SSP) will be developed in the later releases vs. a continuous integration model within each release.	John	Concern	9/30/2020	Integration and Interface Management				N/A	4	4	High	Open				
59	The Project's Critical Path does not include release / functionality dependencies.	Darren	Concern	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.	Darren	Concern	9/30/2020	Project Management				Q4 2020	3	3	Med	Open				
57	Roles and responsibilities of the BES "Product Owner" and communication of this role's activities with DHS and the project team is not clear.	Brad	Finding - Risk	7/22/2020	Project Management				ASAP	4	4	High	Open				
55	Test Case creation without functionality acceptance from JAD/JAR sessions.	Earl Burba	Concern	7/29/2020	Project Management				Immediate	3	4	Med	Open				
54	Poorly planned and executed User Acceptance Testing (UAT) could lead to implementation delays and delivery of solution that does not meet business need.	Brad	Finding - Risk	6/24/2020	Project Management				immediately	4	3	Med	Open				
53	The System Architecture documentation is scheduled for completion after multiple releases are in development, and some releases are already completed.	John	Finding - Issue	5/21/2020	System Design				June 2020	5	4	Med	Open				
49	Poor quality project deliverables may lead to rework and negatively impact the system design, testing artifacts and project schedule.	Darren	Finding - Issue	4/16/2020	Project Management				Immediate	3	5	Med	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				val and Technical Requir	5	4	Med	Open				

#	Description	Owner	Finding	Date	Area							ASAP/Date			Priority	Status
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	3	5	Med	Open
43	Due to key DHS and BES Team members departing and/or transitioning from the project, succession planning and knowledge transfer is needed to ensure there are no gaps in knowledge 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	10/28/2020	Project Management							ASAP	4	4	High	Open
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	3	2	Low	Open
58	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.	mfors	Finding - Risk	8/29/2019	System Design							ASAP	4	4	Med	Open

2

#		Type	Date	Category					Priority	Status
29	mfors	Finding - Issue	5/28/2019	Project Management			ASAP	4	5	Med	Open
16	mfors	Finding - Issue	12/17/2018	Configuration and Development			1/31/19	4	3	Med	Open
2	Jolene	Finding - Issue	11/28/2018	Project Management			TBD	4	5	High	Open