DAVID Y. IGE
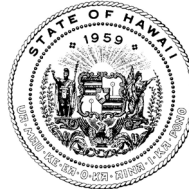GOVERNOR

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October 13, 2022

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

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

Aloha Senate 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 of Hawai'i, 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 (Oct 14, 2022 11:59 HST)

Douglas Murdock
Chief Information Officer
State of Hawai'i

Attachments (2)

Hawaii Department of Human Services Systems Modernization Project

Final IV&V Status Report
for Reporting Period: August 1 – 31, 2022

Submitted: ***September 16, 2022***

PUBLIC
CONSULTING GROUP

Solutions that Matter

Overview

-

Executive Summary

Executive Summary

In August, although progress occurred in some areas, the Project is facing significant challenges that must be addressed, including:

- Corrective Action Plan (CAP) - DHS requested a CAP from the ASI to address the root causes of the continued schedule delays. The ASI provided a "plan to create the plan", requiring more time for the ASI to identify and document the much-needed corrective actions. Should DHS accept this approach, the BES project duration is likely to extend further.

- Project Schedule – Although the ASI agreed to provide a revised Project Schedule to DHS by August 12, 2022, the ASI failed to deliver, and they have yet to provide DHS with a revised target date.

- ASI Staffing - As reported in prior status updates, the ASI stated the development delays were primarily the result of severe ASI staffing shortages. The ASI reported they developed a staffing mitigation plan but, have not shared it with DHS or IV&V. The ASI leadership communicated that they are pausing the implementation of the staffing mitigation plan until they have Project Schedule approval, but no Project Schedule was delivered to DHS.

IV&V continues to question the ASI's ability to deliver the BES solution in accordance with all contractual requirements. This is based on factual data that the ASI has not delivered the expected results as planned and scheduled over the last 4 years. This challenge is immense and requires strong experienced DD&I leadership to develop a realistic plan with a corresponding schedule and deliver the solution as planned.

Jun	Jul	Aug	Category	IV&V Observations
H	H	H	Project Management	This category remains a red status. The ASI did not deliver the revised project schedule or CAP as planned and has not completed the GCP Change Request (CR) for DHS' review/approval. (Red since July 2020)

Executive Summary

| Jun	Jul	Aug	Category	IV&V Observations
M	M	M	System Design	Although the ASI is now assigning multiple Business Analyst (BA) staff to all design sessions, the Senior BA for the CMM module left the project, which may impact the project team's ability to facilitate the design and associated artifacts for this module.
M	M	M	Configuration and Development	The ASI plans to add 50 resources to the project to address the ongoing development delays. However, the ASI does not plan to hire those resources until the schedule is approved by DHS even though the ASI has not provided a revised project schedule to DHS for review and approval.
M	M	M	Integration and Interface Management	Progress toward finalizing the Memorandums of Agreements with two interface partners continued in August, with a third continuing to move through design. The lack of a schedule to share with the interface partners may have an impact to interface activities.
M	M	M	Testing	The ASI recommended an ADA Compliance tool to DHS. DHS is currently evaluating the ASI's recommendation. The ASI is waiting on DHS approval/acceptance before completing the purchase and installation.
H	H	H	Security and Privacy	There continues be a significant amount of work for the BES Security functionality. The ASI is adjusting security staffing assignments to minimize the risk, but time is needed to determine the impact.

IV&V Findings and Recommendations
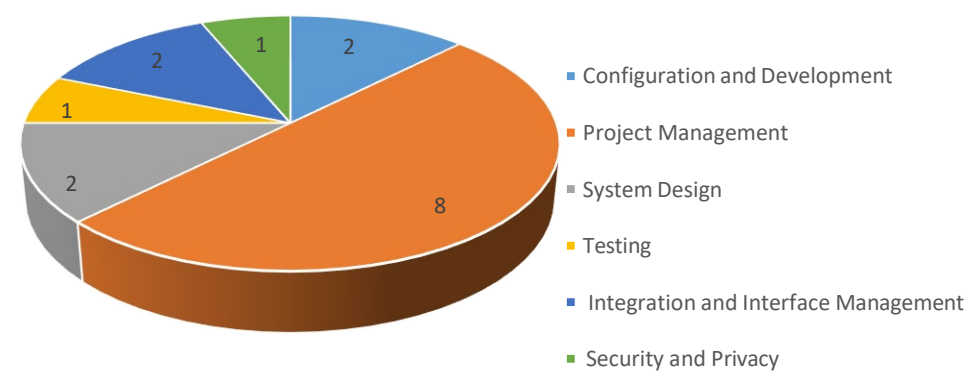
IV&V Findings and Recommendations

As of the August 2022 reporting period, PCG is tracking 16 open findings (9 risks, 7 issues) and has retired a total of 59 findings. Of the 16 open findings, 8 are related to Project Management, 2 in Integration and Interface Management, 1 in Testing, 2 in System Design, 2 in Configuration and Development, and 1 in Security and Privacy.

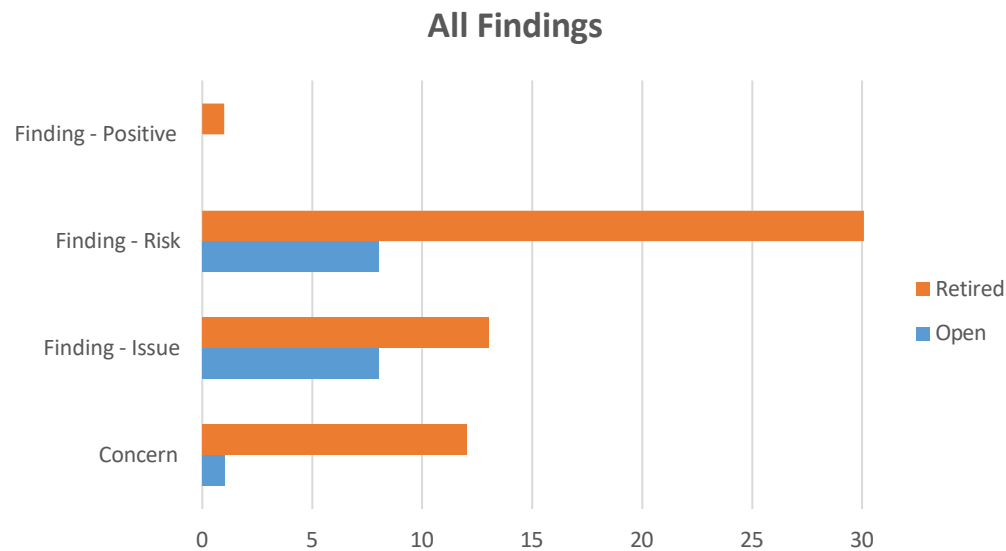Open Risks & Issues
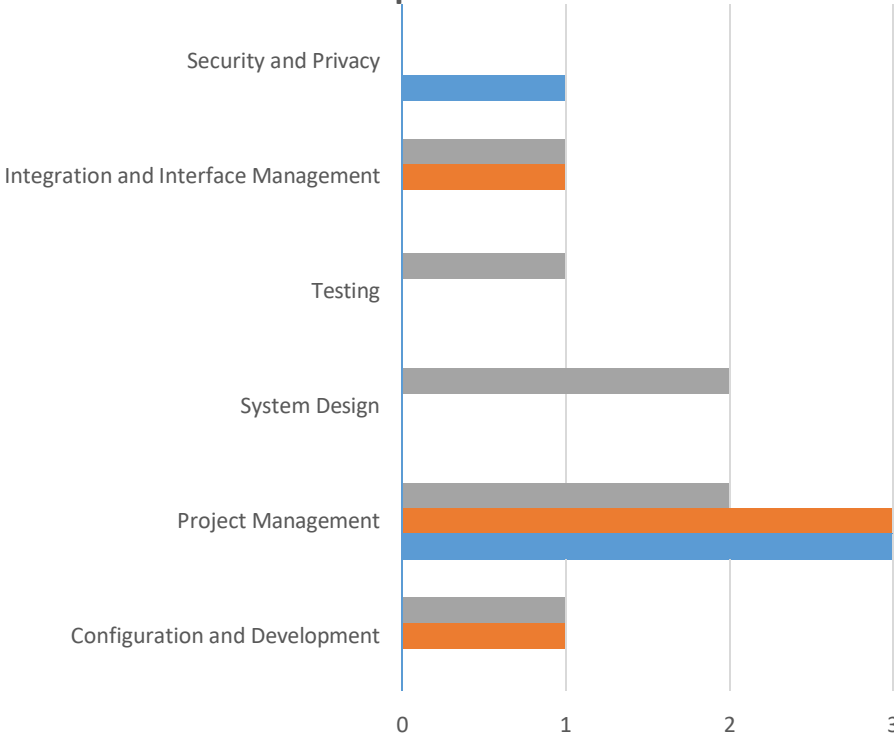
Open Risks & Issues by Category

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 Retired During the Reporting Period

#	Finding	Category
16	**Issue – Lack of clear understanding of the DDI approach may reduce effectiveness of all SDLC Processes.** DHS leadership and IV&V agree that the new design process is understood by the project team and being followed. Therefore, IV&V is retiring this issue.	Configuration and Development
77	**Issue – Insufficient DHS Security Resources on the BES Project may lead to delays in completing security tasks and the System Security Plan (SSP) – Low** IV&V is retiring this issue as DHS has remediated the BES security staffing issue.	Security and Privacy

IV&V Findings and Recommendations

Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
81	**Lack of the required ASI staff may reduce project productivity and quality of the BES design that may lead to schedule delays.** Observation: DHS stakeholders and IV&V have observed that working session productivity has been hindered by the lack of sufficient knowledge, capabilities, and expertise of some ASI team members. IV&V acknowledges that some ASI staff are skilled and knowledgeable. However, lack of skilled and experienced staff in all design sessions will likely have negative downstream impacts. Additionally, the ASI recently announced the departure of some of their most capable and experienced resources.	Project Management

Findings Opened During the Reporting Period

#	Finding	Category
	None	

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
2	**Issue – Late Delivery of project deliverables has caused schedule delays**. The ASI is behind schedule with development activities which will impact the critical path. Without an approved schedule, however, it is difficult to determine what is behind schedule and what impacts late deliverables or activities will have to project deadlines.	M

Recommendations	Progress
• Despite not yet having a revised baseline schedule, continue monitoring and analyzing deliverables that may have impact to the critical path.	In process

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.** No material update for this reporting period.	L

Recommendations	Progress
• The Project should continue to vet possible architectural change impacts to the platform (e.g., ADA, Configuration Management tools), M&O, MQD, and BES systems before finalizing architectural decisions.	In process
• DHS continue to request ASI perform due diligence in any recommendation for foundational architecture change decisions and continue to review with appropriate DHS stakeholders to assure a common understanding of the implications of these decisions.	In process
• The Project should continue to ensure communication between development leads and architecture leads to assure optimal collaboration on possible architecture changes that could impact decisions in each area.	In process
• Maintain current communication 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.	In process

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**. DHS continues to seek applicants for the three PMO positions; these positions remain unfilled.	🔴 H

Recommendations	Progress
• DHS continue to work with the appropriate organizations to identify the funds necessary to fill these positions.	In process
• DHS consider other options (Contractors, State employees borrowed from other agencies) to fill these positions if there is ongoing difficulty in finding permanent hires.	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.** No material update for this reporting period.	L

Recommendations	Progress
• 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
• 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
• Project leadership continue to encourage independent phone conversations to enhance and accelerate communications, and for team members not wait for meetings to converse.	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.** No material update for this reporting period.	L

Recommendations	Progress
• 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
71	**Issue – The lack of the final agreement on the scope and costs of the GCP Change Request (CR) may lead to unanticipated DHS costs, schedule delays, and/or the need to reduce scope.** The ASI submitted a detailed project impact analysis to DHS and provided a demonstration of the current environment to DHS. The ASI is planning to provide DHS a GCP Best and Final Offer (BAFO) for review.	H

Recommendations	Progress
• The ASI should document the current environment M&O activities to ensure all activities are known with a clear understanding of the "AS IS" and "TO BE" model for services beginning with the DDI, through Pilot/Implementation and M&O.	In process
• The ASI clearly document the scope of work and cost for the GCP CR during DDI and M&O and provide to DHS for approval.	In process

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
74	**Risk – The lack of a BES Project schedule based on accurate estimations diminishes effective planning and resource management, which could result in late deliverables, cost increases, and a late go-live.** The ASI indicated that substantial changes and improvements were made to the schedule but did not deliver the revised draft to DHS by the August 12th deadline nor has the ASI provided DHS with a new target date for delivery. Without a project schedule, it is difficult for the Project to plan future activities such as hiring required resources to staff the Project.	H

Recommendations	Progress
• Using the available tools, review the current estimates to complete each activity compared to past actual hours.	In process
• Update as necessary and provide the DHS/ASI project managers with reports and data that accurately reflect the DHS/ASI resource needs along with over/under allocations of staff for the duration of the Project.	In process
• Develop mitigation and contingency plans that are tracked/managed by DHS/ASI for all tasks that are behind schedule or are at risk of being behind schedule which includes resource management.	In process
• Discuss, validate and address additional concerns within the project processes that may cause the project delays other than inaccurate estimates such as over reliance on POs, slow design sprints, and cadence of development teams.	In process
• DHS and the ASI agree to a revised schedule against which project deliverables can be managed.	In process

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
76	**Risk – Volunteer DHS resources leaving the Project may lead to schedule delays, lower morale, and burnout.** No material update for this reporting period. IV&V continue to monitor.	(M)

Recommendations	Progress
• Allocate more time for the DHS team members to dedicate time to the Project.	In process
• Carefully plan for all project activities with reasonable hour allocations for the DHS resources and adjust dates in the BES Project schedule accordingly.	In process
• Add cushion time to the schedule for unexpected project delays.	In process
• Provide incentives for the DHS resources to help maintain the project team and possibly alleviate attrition or increase the number of volunteers to the team.	In process

IV&V Findings and Recommendations

Integration and Interface Management

#	Key Findings	Criticality Rating
63	**Risk – The lack of early planning and coordination with interface partners may result in schedule delays.** The status of the three remaining required agreements (DAGS, DLIR, HYCF) have not changed. The lack of a project schedule may impact the interface partners ability to plan for and support BES interface testing. IV&V is evaluating the lack of an approved schedule on the criticality rating for this finding.	L

Recommendations	Progress
• Complete all MOAs and obtain approval.	In process
• Confirm testing dates with interface partners in writing.	In process

IV&V Findings and Recommendations

Integration and Interface Management

#	Key Findings	Criticality Rating
79	**Issue – External vendor delays in the development of the BES task management system (Current) interface have impacted the project schedule.** No material update in the reporting period.	M

Recommendations	Progress
• Ensure that there is an agreement between DHS and C!A to address roles/responsibilities and outcomes.	In process
• The ASI provide test results from the task management integration to ensure that the interface works.	Not Started

IV&V Findings and Recommendations

Configuration and Development

#	Key Findings	Criticality Rating
70	**Risk – Insufficient configuration management could lead to development confusion and reduce the effectiveness of defect resolution.** The ASI updated the Configuration Management Plan (CMP) with additional configuration management details.	L

Recommendations	Progress
• ASI adhere to plans for configuration management as documented in BI-6 DDI Plan, Section 5.2 and clarify details and/or any changes with DHS.	In process
• ASI validate plans for configuration management with DHS and agree on a meaningful set of configuration items or settings they will track.	In process
• Project work to clarify/solidify plans for the potential use of configuration management tools and DHS work to fund and procure a CM tool, as required, to avoid any negative impacts to the project.	Not Started

IV&V Findings and Recommendations

Configuration and Development

#	Key Findings	Criticality Rating
80	**Risk – Development delays could negatively impact the project schedule and delay go-live.** The ASI continues to onboard additional development resources, stating they added 2 on-shore and 2 off-shore developers to their team. Though an updated schedule has yet to be completed by the ASI, they estimate they will need approximately 50 additional resources to assure adequate velocity and cadence to complete the project in the proposed timeframe. However, until a revised schedule is available the actual number of additional resources needed is not known. The ASI is delaying full recruitment for these positions until the project schedule is approved but have not submitted the revised schedule to DHS.	M

Recommendations	Progress
• Complete and execute remediation plan based on the result of a Root Cause Analysis (RCA).	In process
• ASI consider moving/adding/replacing project team resources strategically to effectively increase velocity.	In process
• ASI track and regularly provide DHS with an accurate velocity (e.g., story points per day/week/month) and assure that the current velocity is accurately and consistently reflected in the project schedule.	In process

IV&V Findings and Recommendations

System Design

#	Key Findings	Criticality Rating
61	**Issue – Poorly executed JAD and "design sessions" could lead to inaccurate design and rework.** The ASI's addition of senior BAs to the design sessions has resulted in improvement. The Senior BAs offer guidance to ensure the project team remains focused on the design. Unfortunately, one of the Senior BAs has left the project so it is unknown if this practice will continue for all BES design sessions.	M

Recommendations	Progress
• The facilitator should use their expertise to drive discussions through leading questions.	In process
• BAs should come to Day one of Design Sprint fully prepared to facilitate discussion on topic of sprint, with adequate knowledge about business process and approach for design based on JAD/JAR notes and other pertinent material.	In process

IV&V Findings and Recommendations

System Design

#	Key Findings	Criticality Rating
73	**Risk – The planned BES infrastructure is complex which could be difficult to implement and maintain and could lead to schedule/cost impacts.** The ASI intends to engage two 3rd-party vendors to assist with the production environment build (once the GCP change order is approved), which could increase their velocity. The inclusion of these vendors could also mitigate the risk of maintaining a complex infrastructure if these vendors can provide experts who have significant experience with cloud infrastructure and related tools.	(M)

Recommendations	Progress
• ASI clearly communicate the potential costs and schedule impacts to implementing the planned infrastructure.	In process
• DHS work with the ASI to assess the potential challenges of maintaining a complex environment and consider scaled back options that could reduce this risk and reduce long-term support costs.	In process
• ASI develop a process to closely monitor cloud and other product changes (software updates/new releases), manage changes, and regression test once updates are applied.	In process
• The project team work to establish strong governance over the utilization and maintenance of various components to simplify their use and monitoring.	Not Started
• ASI development team identify infrastructure components and techniques that are new to them and take action to assure potential integration problems do not lead to unexpected delays.	Not Started

IV&V Findings and Recommendations

Testing

#	Key Findings	Criticality Rating
67	**Risk - The Americans With Disabilities Act (ADA) Section 508 compliance tool has not been installed for the Project, which may cause significant rework.** No change in status. Waiting on DHS acceptance/approval to move forward with purchase, installation, configuration, and implementation of the ASI-recommended ADA compliance tool.	◔ M

Recommendations	Progress
• The ADA tool meets contractual and project requirements.	In process
• The ASI communicates a plan for ADA test execution.	In process
• The ASI communicates how the tool will be used to report compliance and non-compliance and how non-compliance will be addressed/corrected	In process
• The ASI communicates how and when DHS/IV&V will be provided the reports from the ADA tool execution and how to interpret the results.	In process

IV&V Findings and Recommendations

Security and Privacy

#	Key Findings	Criticality Rating
68	**Risk - Insufficient planning/execution of the BES Security Plan activities may lead to delays in gaining Federal Partner approval for the BES Project to begin the Pilot Phase.** IV&V recommends that Security SMEs leading security and privacy-focused workshops and technical sessions have a depth of experience in NIST 800-53 and with experience authoring implementation statements of System Security Plans (SSP). The ASI will be changing the ASI security lead in September 2022.	**H**

Recommendations	Progress
• The ASI continue to develop the BI-13 Security Plan in close collaboration with DHS.	In process
• DHS and the ASI agree upon the tools and process that will be used to document and track security control implementation, such as security governance, risk, and control (GRC software). The process should define the level of detail needed to track progress (estimates, target dates, risks, issues, evidence) along with the Requirement Traceability Matrix, and plans of actions and milestones (POAM).	In process
• ASI add a Security Architect to the Project ASAP to assist with the Security Plan activities.	In process
• ASI ensure that the ASI Security Lead has a depth of experience in NIST 800-53 and experience authoring implementation statements of System Security Plans (SSP).	Not Started

IV&V Status

IV&V Engagement Status

IV&V Engagement Area	May	Jun	Jul	Comments
IV&V Budget	🟢	🟢	🟢	
IV&V Schedule	🟢	🟢	🟢	
IV&V Deliverables	🟢	🟢	🟢	PCG submitted the final July IV&V Monthly Status Report.
IV&V Staffing	🟢	🟢	🟢	Al Pangelinan has left PCG and is no longer supporting the BES IV&V team.
IV&V Scope	🟢	🟢	🟢	

Engagement Status 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 August reporting period:

  - Completed – July 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 September reporting period:

  - Ongoing – Observe BES Design and Development sessions as scheduled

  - Ongoing – Observe Bi-Weekly Project Status meetings

  - Ongoing – Observe Weekly Architecture meetings

  - Ongoing – Observe Weekly 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-15 Release 0.8 Fully Configured and Developed System – DRAFT	8/26/2022	V0.2
BI-10 Release 0.9b CMM Broadcast Notification – DRAFT	8/25/2022	V0.1
BI-10 Release 0.8 FMM EBT Core(Iteration 3)	8/25/2022	V1.0
BI-10 Release 0.8 FIS Interface Consumption (Iteration 3)	8/25/2022	V1.0
BI-10 Release 0.8 FMM Card Issuance (Iteration 3)	8/25/2022	V1.0
BI-22 Release 0.9a System Test Report – DRAFT	8/24/2022	V0.1
BI-10 Release 0.10 FMM – DRAFT	8/15/2022	V0.1
BI-10 Release 0.9b Financial Management Module – DRAFT	8/55/2022	V0.1
BI-10 Release 0.8 FMM EBT Core(Iteration 2)	8/11/2022	V1.0
BI-10 Release 0.8 FIS Interface Consumption (Iteration 2)	8/11/2022	V1.0
BI-10 Release 0.8 FMM Card Issuance (Iteration 2)	8/11/2022	V1.0
BI-10 Release 0.9 CF Create a Task - DRAFT	8/3/2022	V0.1
BI-22 Release 0.8 System Test Report (Iteration 1)	8/2/2022	V1.0

Additional Inputs – Artifacts

Artifact Name	Artifact Date	Version
Unisys Contract Amendment 3	4/17/2020	N/A
FNS Handbook 901	01/2020	V2.4
BES Project Schedule (BI-5)	8/05/2022	_08052022
BES Weekly Status Report	8/31/2022 8/24/2022 8/17/2022 8/10/2022 8/3/2022	N/A
BES Risks and Issues Log	N/A	N/A
BES Interface Communication Plans and Interface Control Documents	N/A	N/A
NIST Special Publication 800-53 Security and Privacy Controls for Information Systems and Organizations	12/20/2020	Rev.5
BESControls_8_22_22.docx	8/22/2022	N/A
BES New System Certifications_8_28_22.pptx	8/28/2022	N/A

Additional Inputs

Meetings and/or Sessions Attended/Observed:

1. Weekly Platform Status Meeting – 8/2/2022, 8/9/2022, 8/16/2022, 8/23/2022, 8/30/2022
2. Bi-Weekly Project Status Meeting – 8/3/2022, 8/17/2022, 8/31/2022
3. Bi-Weekly BES PMO and IV&V Touch Base – 8/4/2022, 8/18/2022
4. Weekly BES Dev Stand-up – 8/3/2022, 8/10/2022, 8/17/2022, 8/24/2022, 8/31/2022
5. Weekly BES Project Schedule Review Meeting– 8/2/2022, 8/9/2022, 8/16/2022, 8/23/2022
6. IV&V Team Meeting – 8/1/2022, 8/4/2022, 8/8/2022, 8/11/2022, 8/15/2022, 8/18/2022, 8/22/2022, 8/25/2022, 8/29/2022, 8/31/2022
7. Weekly DHS-Unisys Security Touchpoint – 8/2/2022, 8/9/2022, 8/16/2022, 8/23/2022, 8/30/3033
8. C!A Bi-Weekly Meeting – 8/4/2022, 8/4/2022, 8/18/2022
9. BES Security Controls Meeting – 8/4/2022, 8/11/2022, 8/18/2022, 8/25/2022
10. BES Testing Touch base – 8/10/2022, 8/24/2022
11. HI DHS BES July Draft IV&V Report Review – 8/11/2022
12. Bi-Weekly DHS and IV&V Touch Base Meeting – 8/9/2022, 8/23/2022
13. ASI/IV&V Mid-month Check-in – 8/19/2022
14. ASI and IV&V Pre-Draft Report Review – 8/2/2022
15. Executive Steering Committee Meeting – 8/18/2022
16. HI BES ASI and IV&V Touch Base - Functional Team – 8/17/2022
17. HI BES ASI and IV&V Touch Base - Technical Team – 8/17/2022
18. Monthly Project Risk and Issue Review Meeting – 8/17/2022
19. Implementation Planning – 8/10/2022, 8/24/2022
20. CO19 Manage Provider – 8/1/2022, 8/3/2022, 8/5/2022, 8/10/2022

Additional Inputs – Continued

Meetings and/or Sessions Attended/Observed:

21. R0.13 Correspondence Specs – 8/1/2022, 8/3/2022, 8/5/2022, 8/10/2022
22. CO23b Manage Interface Verification 8/1/2022, 8/3/2022,
23. FM50k Receive FIS Data - Inactive/Dormant/Expunged File / FM50l Receive FIS Data - Grant Expungement File 8/2/2022, 8/4/2022, 8/5/2022, 8/9/2022
24. R0.14 Report Specs 8/2/2022, 8/3/2022, 8/3/2022, 8/4/2022, 8/9/2022, 8/11/2022, 8/15/2022, 8/18/2022, 8/23/2022, 8/24/2022, 8/25/2022, 8/29/2022, 8/30/2022
25. Manage SMRF 8/2/2022, 8/4/2022, 8/9/2022, 8/10/2022, 8/11/2022, 8/16/2022
26. CO11 Restore Program – 8/2/2022, 8/4/2022, 8/9/2022, 8/11/2022, 8/29/2022
27. PE04 Override Eligibility – 8/3/2022, 8/9/2022, 8/11/2022, 8/16/2022, 8/18/2022, 8/23/2022, 8/24/2022
28. FM53 Receive Lockbox Data – 8/4/2022, 8/10/2022, 8/18/2022, 8/23/2022, 8/23/2022
29. CF52a Manage Documents – 8/12/2022, 8/15/2022, 8/17/2022, 8/22/2022
30. FM23a Manage Write-Offs – 8/12/2022, 8/16/2022, 8/18/2022, 8/23/2022, 8/25/2022, 8/29/2022
31. FM51b Receive FNS Data – 8/15/2022, 8/17/2022, 8/22/2022, 8/24/2022, 8/24/2022, 8/30/2022
32. CO54b Send BEER Data – 8/16/2022, 8/18/2022, 8/23/2022, 8/29/2022
33. CF71 Manage Supervision – 8/17/2022, 8/22/2022, 8/23/2022
34. FM30 View Overpayment List - 8/29/2022
35. PE11a Review Additional Budget Details – 8/29/2022
36. IF25 CYRCA ICD – 8/30/3033
37. MDM Consent Management – 8/30/2022
38. Weekly Functional PMO Meeting – 8/1/2022, 8/8/2022, 8/15/2022, 8/22/2022, 8/29/2022
39. Data Conversion PMO meeting – 8/1/2022, 8/8/2022, 8/15/2022, 8/29/2022
40. Weekly Interfaces - PMO Meeting – 8/1/2022, 8/8/2022, 8/15/2022, 8/22/2022, 8/29/2022

Additional Inputs – Continued

Meetings and/or Sessions Attended/Observed:

41. PMO Meeting Structure – Testing – 8/4/2022, 8/11/2022, 8/18/2022, 8/25/2022
42. PMO Meeting Structure - BES Development – 8/4/2022, 8/11/2022, 8/18/2022, 8/25/2022
43. PMO Meeting Structure - AH/MDM/SSP Development – 8/9/2022, 8/16/2022, 8/23/2022, 8/30/2022
44. BES Design Sprint Retrospective & Planning – 8/5/2022, 8/26/2022
45. BES CCB Monthly Meeting – 8/10/2022
46. DDI Architecture Review – 8/4/2022, 8/22/2022
47. [BES] Screen Prototype Review - FMM FM50k Receive FIS Data - Inactive/Dormant/Expunged File / FM50l Receive FIS Data - Grant Expungement File – 8/11/2022
48. [BES] Screen Prototype Review - CMM CO19 Manage Resources – 8/11/2022
49. R0.9 SIT Go/No Exit – 8/16/2022
50. [BES] Screen Prototype Review - CMM CO14 Manage SMRF – 8/18/2022
51. Disqualification List – 8/23/2022
52. [BES] BI-22 Release 0.9a Walk-Through - System Test Report – 8/25/2022
53. [BES] Screen Prototype Review - CMM PE04 Override Eligibility – 8/25/2022
54. [BES] Screen Prototype Review - FMM FM53 Receive Lockbox Data – 8/25/2022
55. [BES] R0.9c Sprint End Client Demo - SSP Accessibility – 8/29/2022
56. Review Draft UAT Outline – 8/31/2022

Appendices

Appendix A – IV&V Criticality Ratings

Criticality Rating	Definition
🔴	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

Ending Slide

Solutions that Matter

ID	Title	Reporter	Finding Type	Identified Date	Category	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Status Update	Client Comments	Vendor Comments
81	Lack of the required ASI staff may reduce project productivity and quality of the BES design that may lead to schedule delays.	Michael Fors	Concern	9/8/2022	Project Management	DHS stakeholders and IVV have observed that working session productivity has been hindered by the lack of sufficient knowledge, capabilities, and expertise of some ASI team members. IVV acknowledges that some ASI staff are skilled and knowledgeable. However, lack of skilled and experienced staff in all design sessions will likely have negative downstream impacts. Additionally, the ASI recently announced the departure of some of their most capable and experienced resources.	A primary factor of project success is establishing a skilled, experienced, productive, and high-functioning team. If the ASI is not able to maintain this type of team, project schedule risks could increase. The ASI recently determined that in order to meet the current projected go-live date, they would need to add approximately 50 additional resources to their team. With the recent loss of some of the ASIs most capable and experienced resources, project delays could continue, productivity could be hindered, and software design quality could be reduced. Further, the lack of sufficiently capable ASI resources could weigh heavily on already constrained DHS SMEs as they attempt to compensate and expend additional efforts to assure software design quality and ensure that project milestones are met. If the ASI is unable to quickly replace these highly capable individuals, these risks could progressively increase. If software design quality cannot be effectively assured, it could lead to reduced user buy-in and unexpected rework that could impact the overall project budget.		ASAP	3	3 High		Open			
80	Development delays could negatively impact the project schedule and delay go-live.	Michael Fors	Finding - Risk	6/30/2022	Configuration and Development	ASI reported development activities have been slowed as they have been unable to achieve and/or maintain their expected development velocity. The ASI is working to produce a root cause analysis and remediation plan to address these delays, however, both have been delayed. Previously, the development team was challenged with accurately estimating development task level of effort (i.e., story points) in the past and the ASI has been challenged with producing a project schedule that accurately reflects realistic timelines (see Finding #74). The ASI continues to be challenged with finding qualified resources in a timely manner.	If the ASI is unable to achieve a velocity meets planned milestones, schedule delays may lead to a delayed system go-live date. Failure to achieve a level of accuracy in estimating development tasks challenge DHS in planning for their project activities. DHS has indicated, and IVV agrees, that some of these delays could be due to some ASI BAs lacking the expertise required to create system designs and specifications that developers could consume without having to get extensive clarification from the ASI BA/SA team. DHS and IVV observed instances where ASI BAs/SAs have presented less than optimal designs and left it to DHS (who may lack software or UI design expertise) to improve, which has contributed to unproductive design sessions (see Finding #61). It remains unclear if scope creep has contributed to these delays.	OPEN • Complete and execute remediation plan based on the result of a Root Cause Analysis (RCA). • ASI consider moving/adding/replacing project team resources strategically to effectively increase velocity. Note that adding additional junior resources may not be as effective as staffing additional expert-level development, analysis, and other resources. • Request the ASI effectively track and regularly provide DHS (potentially via the weekly DDI status meeting) with an accurate velocity (e.g., story points per day/week/month) and assure that the current velocity is accurately and consistently reflected in the project schedule.	Immediate	3	3 Med		Open	08/30/22 - The ASI continues to onboard additional development resources, stating they added 2 on-shore and 2 off-shore developers to their team. Though an updated schedule has yet to be completed by the ASI, they estimate they will need approximately 50 additional resources to assure adequate velocity and cadence to complete the project in the proposed timeframe. However, until a revised schedule is available the actual number of additional resources needed is not known. The ASI is delaying full recruitment for these positions until the project schedule is approved but have not submitted the revised schedule to DHS. 07/27/22 - The ASI has a severe shortage of development resources and is recruiting to fill the open positions, but the current job market presents challenges. The ASI plans to update the schedule to account for the current lack of resources and intends to submit a re-baselined schedule on 8/12/22. The ASI is currently assessing the level of effort to address changes to Federal security control requirements (revision 5 of NIST); which may increase development efforts. The ASI recently hired 2 additional developers and is working to increase the accuracy and validity of the tracking of development velocity. Accurate velocity tracking may improve the accuracy of development estimates, allowing the ASI to more accurately determine resource levels required to meet development milestones and planning.		
79	External vendor delays in development of the BES task management system (Current) interface have impacted the project schedule.	Michael Fors	Finding - Issue	6/3/2022	Integration and Interface Management	The BES Project expected the CIA developed Current interface (aka., webhook) to be completed by 04/07/2022. CIA reported that the webhook development work would be done by 05/27/2022. As of 05/25/2022, the ASI has not received any status from CIA. The webhook is currently holding up the design of the CF44 – Manage CIA Data use case for Release 0.8.	Current (previously known as ePathos) is a task management system developed by the Change and Innovation Agency (CIA). The Department of Human Services (DHS) uses the Current system to manage and create case related tasks. The Benefits Eligibility Solution (BES) will interface with the Current system to manage tasks. The BES system will create tasks and will send them to Current. BES does not have the capabilities to manage or close the tasks. Eligibility Workers will claim tasks, and the Supervisors will manage tasks from within the Current system. The webhook is being designed by CIA that will provide task details for cases that have been tagged as "No Contact". This is a requirement to meet the design of the CF44 – Manage CIA Data use case. The ASI has stated that webhook is required before some critical path development tasks can commence	1. Ensure that there is an agreement between DHS and CIA to address roles/responsibilities and outcomes. Not applicable and completed. 2. Schedule recurring meetings with CIA to ensure consistent communication between DHS, the ASI, IVV, and CIA. Completed. 3. The ASI provide test results from the task management integration to ensure that the interface works.	Q3	5	1 Med		Open	08/30/22 - No material update in the reporting period. 08/01/2022 - DHS has decided not to establish an agreement with CIA (the task management vendor) because DHS currently has a subscription that includes the BES requirements. In addition, DHS and the ASI have established biweekly meetings with the task management vendor. 06/30/2022 - The task management system vendor provided details regarding the webhook at a recent meeting with DHS, allowing for related BES development to commence. DHS is determining the type of agreement required with this interface vendor. Based upon receiving the needed information, IVV is reducing the criticality rating to 'Medium'. 06/02/2022 - Issue created.		
76	Volunteer DHS resources leaving the Project may lead to schedule delays, lowered morale, and burnout.	Earl Burba	Finding - Risk	3/3/2022	Project Management	The DHS resources assigned to work with the ASI on the BES Project are all volunteers except one. Resources are not in dedicated roles within the team and have the option of returning to their previous operational roles at any time.	The replacement of DHS resources in project roles (e.g., testers and product owners) is not guaranteed and DHS already stated that no additional resources will be assigned to the test team. It is a risk to the Project that the remaining DHS resources will be overallocated, risking burnout, and creating a cycle of more DHS resources leaving the Project. If additional DHS staff are provided, their training will add to the workloads of current DHS project resources.	• Consider adding DHS resources as needed. 6/30/2022 Complete • Allocate more time for the DHS team members to dedicate time to the Project. • Carefully plan for all project activities with reasonable hour allocations for the DHS resources and adjust dates in the BES Project schedule accordingly. • Add cushion time to the schedule for unexpected project delays. • Provide incentives for the DHS resources to help maintain the project team and possibly alleviate attrition or increase the number of volunteers to the team.	Immediate	4	2 Med		Open	8/30/2022 - No material update for this reporting period. . IVV continue to monitor. 7/27/2022 - No material update for this reporting period. 7/6/2022 - In June, DHS added the following five staff to the BES Project: - An Interface Product Owner - A CMM Product Owner - Two SME resources joined the team to support the Returned Mail Use Cases, - One SME to support the Reporting function. DHS stated they plan on adjusting staff as needed and pro-actively review the project schedule to identify future staffing needs. IVV will evaluate the impact of these staff additions to determine if the criticality rating can be lowered. 5/31/2022 - IVV updated this finding from a preliminary concern to a risk in this reporting period. The draft schedule plans for multiple releases in the testing phase which may stretch the DHS test team to the point where they request to return to their operations positions. DHS is activity working to mitigate this risk by identifying and instituting retention/incentive policies/practices. 4/26/2022 - A new DHS tester has joined the testing team and is being trained. Two additional testers are needed on the ASI team, and it is understood that more ASI testers will be added to support final acceptance testing. These factors help mitigate this finding, but it is unclear if this will address all the testing resource needs or the potential impact of DHS testers returning to their operational roles. The resource loaded updates to the project plan may help forecast resource needs for FAT. DHS is taking steps to retain resources in these roles as they are 'volunteer' roles. 3/28/2022 - DHS SME's are not assigned to the project as full time resources. DHS testing resources are volunteers and can return to the operational positions at any time or may be called back to address BESSD operations needs. Currently a new resource is being evaluated for the DHS testing team. As additional DHS testing expertise becomes apparent in the revised SDLC process, losing resources will have increased impact on delivery and the		
74	The lack of a BES Project schedule based on accurate estimations diminishes effective planning and resource management, which could result in late deliverables, cost increases, and a late go-live.	Ryan Tan	Finding - Issue	11/29/2021	Project Management	DHS and the ASI have tried multiple times to rework the schedule with results that have not yielded improvement. Concerns with the structure, estimating practices, and ability to manage to the schedule persist. The use of multiple tools to track resources obfuscate resource management. Previous IV&V findings focused on specific schedule components such as resource management and critical path analysis, all of which were addressed and closed.	If estimates for project schedule activities are not accurate, this can lead to constant schedule changes, resources not being available when needed, rushed activities, and general frustration which can lead to schedule delays, low quality output, scope changes, and budget issues.	• Using the available tools, review the current estimates to complete each activity compared to past actual hours • Update as necessary and provide the DHS/ASI Project Managers with reports and data that accurately reflect the DHS/ASI resource needs along with over/under allocations of staff for the duration of the Project • Discuss, validate and address additional concerns within the project processes that may cause the project delays other than inaccurate estimates such as over reliance on POs, slow design sprints, and cadence of development teams. • DHS and the ASI agree to a revised schedule against which project deliverables can be managed.	Immediate	4	4 High		Open	8/31/2022 - The ASI indicated that substantial changes and improvements were made to the schedule but did not deliver the revised draft to DHS by the August 12th deadline nor has the ASI provided DHS with a new target date for delivery. Without a project schedule, it is difficult for the Project to plan future activities such as hiring required resources to staff the Project. 7/29/2022 - The ASI delivered a draft schedule that did not meet DHS's expectations as it was developed with inaccurate estimates. In their CAP, the ASI plans to deliver a new draft of the schedule by August 12, 2022. Despite many late activities, the ASI originally planned to update the schedule without impacting the existing go-live and pilot dates. After further analysis, the ASI anticipates updates to the existing go-live and pilot dates. Since the Project has not accurately estimated/planned resources, further delays and disruptions to the BES Project may occur. 6/30/2022 DHS has not approved the May 18, 2022 draft project schedule and the project continues to work without an approved version. DHS stated the draft schedule contained late tasks and they lack confidence in the ASI's ability to perform to the schedule. An updated draft was published on June 24, 2022 to reflect changes and progress for DHS approval. 5/31/2022 - A draft project schedule was submitted for DHS approval. It incorporated additional DHS resources into the design sprint durations and extended the Final Acceptance Testing duration from 40 to 60 days. DHS approval of this schedule is anticipated in June 2022. IVV remains concerned with the accuracy and validity of the BES Project schedule due to past performance of the ASI and known current development delays. 4/29/2022 - A revised schedule that addresses the two main open issues (increased Final Acceptance Testing duration and updates to the Design Sprint timeline) was not finalized during this reporting period. Without a final revised schedule to manage the Project, planning of future activities and the ability to objectively measure project progress is hindered.		

ID	Title	Reporter	Finding Type	Identified Date	Category	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Status Update	Client Comments	Vendor Comments
73	The planned BES infrastructure is complex which could be difficult to implement and lead to schedule/cost impacts.	Michael Fors	Finding - Risk	10/28/2021	System Design	Current ASI infrastructure plans include a significant number of sophisticated components that make up a complex cloud infrastructure. Further, the Project Team has yet to finalize components that will make up the BES infrastructure and the additional costs and time to configure, test, and implement the planned complex environment remain unclear.	If the level of effort to implement and manage the complexities of the BES infrastructure is not accurately accounted for and staffed by the ASI, the project could be met with unexpected costs and schedule delays. Delays in finalizing the components being implemented could exacerbate this risk and lead to further delays. Complex platforms often present system maintenance and operations challenges as system changes can hold the increased potential for system failure (i.e., due to the significant number of "moving parts") and increase the level of time and effort to resolve infrastructure and application-level bugs. Further, some components remain in an immature state compared to their legacy counterparts. For example, the project recently experienced a system failure because Google Cloud failed to clearly communicate a change that led to failure in another component (i.e., Nexus). Google Cloud is generally viewed as a less mature product offering, compared to their rivals (Amazon Web Services, Microsoft Azure). IV&V remains concerned that this could lead to failures at critical points in the project (including post-go live production failures) that could be difficult to resolve and lead to project disruption. If DHS intends to eventually reduce M&O outsourcing costs turning over M&O tasks to State employees, they could face challenges supporting tools they may not be familiar with in a complex infrastructure environment.	• ASI clearly communicate the potential costs and schedule impacts to implement and maintain the planned infrastructure. The Architecture process should include steps to provide a detailed impact of DHS architectural decisions to include the integration activities, support required, and maintenance and operations impacts. • DHS work with the ASI to assess the potential challenges of maintaining a complex environment and consider scaled back options that could reduce this risk and reduce long-term infrastructure costs. • ASI develop a process to closely monitor cloud infrastructure and application-level bugs (software updates/new releases), manage changes, and regression test once updates are applied. • The project team work to establish strong governance over the utilization and maintenance of various components to simplify their use and monitoring. • Request the ASI development team identify infrastructure components and techniques that are new to them and take action to assure potential integration problems do not lead to unexpected delays. For example, allot time in the schedule to conduct proof of concepts to assure infrastructure components work as expected.	Next several month	3	3 Med	Open	08/30/22 - The ASI intends to engage two 3rd-party vendors to assist with the production environment build (once the GCP change order is approved), which could increase their velocity. The inclusion of these vendors could also mitigate the risk of maintaining a complex infrastructure if these vendors can provide experts who have significant experience with cloud infrastructure and related tools. 07/31/22 - The newly assigned ASI architects continue to ramp up to meet productivity expectations. The ASI recently reinstituted weekly architecture meetings with DHS and other infrastructure stakeholders. The ASI is analyzing the impact of the revised federal security controls on the project. System changes resulting from the security controls update may further complicate the infrastructure and/or add unexpected work to complete the infrastructure buildout. The ASI reported they are experiencing turnover of some infrastructure staff; this may result in exacerbating this risk due to the potential loss of explicit and tacit infrastructure knowledge or if efforts to capture their knowledge will prove sufficient. 06/30/22 - IVV added a new recommendation and is escalating the criticality rating from 'Low' to 'Medium' based on the following ASI statements regarding: - The ASI development team experienced delays in a recent release due to problems related to development integration with some infrastructure components. - The root cause of these delays may be because the infrastructure utilizes a series of software components and tools that must be fully configured, integrated, and managed to work effectively. - The level of effort to stand up, maintain, replicate, and troubleshoot the complex infrastructure. Complex infrastructures often require developers to be reliant on the infrastructure team to resolve some technical issues that they haven't experience before. IVV recommends the development team identify infrastructure components and techniques that are new to them and make efforts to assure potential		
71	The lack of the final agreement on the scope and costs of the Google Cloud Platform (GCP) Change Request (CR) may lead to unanticipated DHS costs, schedule delays, and/or the need to reduce scope.	Joe Frasca	Finding - Issue	8/23/2021	Project Management	In April 2020, the DHS/ASI SOAP contract amendment codified the migration maintenance of some of the BES environments from an on-prem to cloud based solution however, not all details were vetted at that point in time. In the July/August 2020 timeframe, DHS and the ASI agreed to have all BES environments migrated to the cloud. Since then, the scope has been adjusted and the CR is being drafted by the ASI. It has been over 12 months since the project decided to move all BES environments to the Cloud solution – more than enough time to document, price and negotiate the scope of work. The BES is being developed in GCP and DHS/ASI consistently report they are working on the CR, however; it is not final.	The migration of some BES environments to the cloud and shifting the maintenance of cloud environments from the ESI to the ASI was included in the ASI/DHS SOAP Contract Amendment finalized in April 2020. The decision to migrate all BES environments to the cloud was made in the July/August 2020 timeframe. DHS' intent is for this CR to be cost-neutral. While the BES application is being developed in the cloud, details regarding the specific services to be provided and by which vendor during the BES DDI and Maintenance and Operations Phases have not been finalized.	- The ASI should document the current environment M and O activities to ensure all activities are known with a clear understanding of the "AS IS" and "TO BE" model for services beginning with the DDI, through Pilot/Implementation and M and O. The ASI clearly document the scope of work and cost for the GCP CR during DDI and M and O and provide to DHS for approval. COMPLETE - DHS and the ASI agree to a firm delivery date for when DHS will receive the GCP CR. 12/16/2021 Complete	ASAP	4	4 High	Open	8/31/2022 - The ASI submitted a detailed project impact analysis to DHS and provided a demonstration of the current environment to DHS. The ASI is planning to provide DHS a GCP Best and Final Offer (BAFO) for review. 7/30/2022 - The ASI and DHS have a general agreement to the scope of the GCP CR. The ASI is preparing a project impact analysis and will submit a formal document to DHS in August 2022. IVV concerns are increasing as this CR is not finalized and is focused on the impact to the Project if not completed. Uncertainty created by this open scope issue has already impacted security planning. 6/30/2022 - IVV remains concerned that the production environment for BES is unknown along with the roles and responsibilities of the ASI, ESI and DHS. There are many possible impacts to the project ranging from contract changes to procurement and integration activities. All these take time to complete yet there are no tasks and activities in the schedule to complete this work. 5/31/2022 - IVV has increased concerns about the slow progress and lack of detail regarding the GCP change request, as this has been in discussion since July/August 2020. The ASI has stated that their work on tasks within the scope of the CR is 'at risk' and may need to stop, pending the CR approval. Based on the ASI Security Lead's report that the lack of an approved GCP decision is delaying security work, this risk has materialized to an issue and the criticality rating is escalated to High. 4/30/2022 - The ASI developed a Rough Order of Magnitude (ROM) for the cost of the change request based on scope discussions with DHS. While progress is being made, the pace is slow. The ASI Security Lead reported the lack of an approved GCP decision is delaying security work. 3/31/2022 - DHS and the ASI have met to further define the scope of the CR and confirm the responsibilities of the ASI and ESI. DHS plans to have the Rough Order of Magnitude (ROM) done by April 15th, and then will engage the HI Attorney General. DHS has extended an opportunity		9/9/2021 - RAP: Point of clarification. The SOAP agreement did not establish that the project would be deployed to the Cloud. SOAP provided that development be done in the Cloud and specifically that deployment would we be to the on-premise environment. However, we did acknowledge that deployment may move to the Cloud. The final decision to move to GCP for production was made in July 2020. The costs for managing the UAT, Production, and Disaster Recovery environments were not included in the SOAP agreement nor
70	Insufficient configuration management could lead to development confusion and reduce the effectiveness of defect resolution	Michael Fors	Finding - Risk	8/23/2021	Configuration and Development	The BI-6 DDI Plan Deliverable, Section 5.2 establishes the framework for the Configuration Management Plan, however, it remains unclear if sufficient progress has been toward establishing CM processes, selecting CM tools (e.g., CMDB), and building out the CM infrastructure. The projects Google Cloud Platform (GCP) Change Request and Security Plan have yet to be finalized which may include additional requirements or decisions that could impact CM. The project currently relies on Github for tracking of some configurations.	Configuration Management is a set of processes and procedures that ensures the BES is understood and works correctly. The BES solution includes tools that may provide a level of automation for Configuration Management that may reduce errors and should provide the project team with accurate, dynamic and timely information on some of the configuration items. However, it is critical that DHS/ASI agree to the full list of items that are included in the configuration plan along with the details regarding the management of the configuration items, reporting and audit features.	OPEN • ASI adhere to plans for configuration management as documented in BI-6 DDI Plan, Section 5.2 and clarify details and/or any changes with DHS. • ASI validate plans for configuration management with DHS and agree on a meaningful set of configuration items or settings they will track. • Project work to clarify/solidify plans for the potential use of configuration management tools and DHS work to fund and procure a CM tool, as required, to avoid any negative impacts to the project. COMPLETED • Identify the DHS POC for the Configuration Management Activities that would provide oversight of configuration management activities and assure defined CM steps and plans are being followed, are effective, and are achieving DHS objectives for CM. 7/31/2022	ASAP	2	2 Low	Open	08/30/22 - The ASI updated the Configuration Management Plan (CMP) with additional configuration management details. 07/27/22 - DHS has identified technical and functional primary points of contacts for ASI to work with for configuration management efforts. IVV remains concerned that some configuration management (CM) details have yet to be finalized and the lack of clarity around the CM database (CMDB) tools. For example, it remains unclear what CMDB tool will be used if Service Now is not part of the GCP change request. 06/30/22 - The Project previously stated its intention to utilize ServiceNow (SN) for Configuration Management (CM), however, it remains unclear if progress has been made on 1) finalizing this decision, 2) how it will be used, and 3) the status of funding for purchase. Further, it remains unclear whether DHS will utilize their existing SN installation or create a separate instance and who will be responsible for defining the service catalog and SN/CM processes. Funding for SN is currently dependent on the approval and funding of the GCP change request; it remains unclear if contingencies have been detailed or documented if GCP is not approved. IVV has elevated this 'Concern' to a 'Risk'. 05/31/22 - No material update in the reporting period. 4/29/22 - IVV expects this concern to be increasingly impactful as the Project approaches go-live. Implementation of all the components of configuration management later in the Project could leave the project team scrambling to implement during pre-go-live when resources are likely to be constrained. Delayed completion may lead to configuration management that does not fully meet the needs of the Project or DHS expectations. 03/31/22 - No material update for this reporting period. 2/28/22 - No material update for this reporting period. 01/31/22 - No material update for this reporting period. 12/31/21 - No material update for this reporting period. 11/29/21 - The ASI stated their plans to utilize Service Now as their Configuration		9/9/2021 - RAP: We look forward to receiving specific inquiries from the IV&V team on configuration management and having conversations. We do acknowledge that the plan likely needs to be updated to reflect the processes in place on the project for configuration management.
68	Insufficient planning/execution of the BES Security Plan activities may lead to delays in gaining Federal Partner approval for the BES Project to begin the Pilot Phase.	Dustin Heath	Finding - Risk	7/28/2021	Security and Privacy	Over the last several months, the BES project team has been working through the planning efforts to develop the BI-13 Security Plan while also managing through ASI Security Lead staffing changes. DHS and the ASI agreed to modify the BI-13 Security Plan Deliverable Expectation Document (DED) last month and are currently revising it to align to the requirements and changes to the project since inception.	The BES project must have a clear plan to define, implement, test, and validate all Security and Privacy Requirements/Controls prior to entering the Pilot Phase. There are many standards that must be met, and the project team plans to utilize the BES Security Control Implementation Workbook to document the status of each control. The Security Control Implementation Workbook must be detailed and allow for ease of referencing to the Security Policies, Standards, Controls, and implementation plan along with evidence for each control.	OPEN - The ASI continue to develop the BI13 Security Plan in close collaboration with DHS. - DHS and the ASI agree upon the tools and process that will be used to document and track security control implementation, such as security governance, risk, and control (GRC software). The process should define the level of detail needed to track progress (estimates, target dates, risks, issues, evidence) along with the Requirement Traceability Matrix, and plans of actions and milestones (POAM). - ASI add a Security Architect to the Project ASAP to assist with the Security Plan activities. - ASI ensure that the ASI Security Lead has a depth of experience in NIST 800-53 and experience authoring implementation statements of System Security Plans (SSP). COMPLETE - DHS and the ASI agree and finalize the BI-13 DED. 1/4/22 Complete - ASI, per DHS guidance, should begin to pivot toward the adoption of 800-53 Rev 5 since Rev 4 will be obsolete when the system goes live. COMPLETE 3/31/2022 -DHS should determine the FNS requirements for go live based on their next meeting and provide ASI with proper guidance. FNS requirements should be documented as part of BI-13 Security Plan COMPLETE 3/31/2022 -ASI have a security SME attend the weekly security planning meetings and workshops. COMPLETE 7/31/2022	ASAP	4	5 High	Open	08/31/2022 - IVV recommends that Security SMEs leading security and privacy-focused workshops and technical sessions have a depth of experience in NIST 800-53 and with experience authoring implementation statements of System Security Plans (SSP). The ASI will be changing the ASI security lead in September 2022. 07/31/2022 – The ASI filled the Security SME position this month and their prior NIST Security Standard experience should benefit the BES project. The ASI does not have a Security Architect on this project which may lead to an incomplete security and privacy design. It is IVV's understanding that the addition of the Security Architect is included in the GCP change request (CR) and will not be filled until the CR is approved. An agreement has been reached for the immediate term to use Aha and Confluence to develop and collaborate on System Security Plan (SSP) controls. However, an electronic Governance, Risk, and Compliance system (eGRC) is under consideration at DHS. 6/28/2022 – The ASI hired a Security SME who will be working with DHS on security governance, risk, and compliance activities. Weekly security meetings began again in May but are more in the form of status updates. Working sessions on the system security plan controls will resume in July. 5/31/2022 - The ASI plans to add a security resource in June and may need to add additional resources. While the lack of a completed GCP change request is impacting security tasks, the loss of the DHS Security Analyst covered in finding #77 is a project issue. The ASI states that the security activities are six weeks behind schedule, and it will take a couple of months to mitigate this risk. 04/27/2022 – As of April 22nd, IVV has not observed any ASI Security SMEs attending security meetings. While Unisys states an open job requisition exists for a Security Architect, one has yet to be added to the DHS BES team. The BES Security Officer gave conditional approval of the system security boundary, based on the BES architecture not being finalized. All current security-related		9/9/2021 - RAP: The decision to move to GCP for deployment has driven the need for a complete rewrite of the security plan per DHS. The ASI is in the process of planning the effort to make these updates. The effort required to complete this work will be included in either the GCP change request or a new change request We look forward to additional discussions with IV&V and DHS.

ID	Title	Reporter	Finding Type	Identified Date	Category	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Status Update	Client Comments	Vendor Comments
67	The Americans With Disabilities Act (ADA) Section 508 compliance tool has not been installed for the Project, which may cause significant rework.	Earl Burba	Finding - Risk	7/12/2021	Testing	While R0.3 and R0.4 reported that Section 508 compliance had been successfully completed the ASI confirmed that there is currently no working tool installed and that Section 508 compliance testing has not been performed. This risk has been discussed with the ASI over the past several months, but there have been evidence of results to-date. The ASI did state that they are coding to some of the ADA requirements and are using a desk-top tool for ADA compliance as an interim solution. IVV has not received any data to demonstrate the desk-top tool results nor if it provides coverage for all ADA compliance items.	There is a contractual obligation and requirement for BES to be ADA compliant to obtain State and Federal funds for the development of the BES. The ADA Section 508 intent is to make electronic and information technology accessible to people with disabilities (e.g., color blindness, vision and hearing disabilities), in a way that is comparable to the access available to others. Part of the system acceptance criteria for BES is to meet "all applicable State and federal policies, laws, regulations, and Standards, including without limitation the Electronic and Information Technology Accessibility Standards associated with Section 508 of the Rehabilitation Act., which was verified in the ASI proposed Technical Requirements Approach that states "The system complies with DHS branding standards as defined by DHS and adheres to W3C level 2 accessibility guidelines, sub-parts of Section 508 of the Americans with Disabilities Act (ADA), nondiscrimination safeguards in 45 CFR 85.". If the Hawaii guidelines (https://www.hawaii.edu/access/uh-guidelines-for-accessibility/), FNS Guidelines from the 901 Handbook, and contractual obligations to adhere to the Section 508 compliance guidelines (https://section508.gov/) there may be a significant amount of rework to the solution.	1/31/2022 - The following recommendations will be evaluated for this finding. - The ADA tool meets contractual and project requirements. - The ASI communicates a plan for ADA test execution. - The ASI communicates how the tool will be used to report compliance and non-compliance and how non-compliance will be addressed/corrected. - The ASI communicates how and when DHS/IVV will be provided the reports from the ADA tool execution and how to interpret the results. Superseded 8/30/2022 - The ASI should gain DHS' approval on the tool selected after the ASI validates it will perform as expected within the ASI architecture, meeting all contractual and project requirements. The ASI create and communicate the plan for when the ADA compliance tool will be put into action, how the tool will report compliance or non-compliance, how non-compliance will be corrected, and how and when DHS/IVV will be provided the reports from the ADA compliance tool and how to interpret those reports for the code from previous, current and future releases.	As soon as possible	3	3	Med	Open	8/30/2022 - No change in status. Waiting on DHS acceptance/approval to move forward with purchase, installation, configuration, and implementation of the ASI recommended ADA compliance tool. 7/27/2022 - The ASI successfully completed the ADA compliance tool proof of concept and provided reports to DHS for their review and approval. The final steps remaining would be the purchase, installation, and implementation of the tool. 6/29/2022 - The ADA compliance tool is still in the trial phase and a compliance report will be run once the initial testing has been completed. The ASI is expected to provide results of the testing to DHS when the trial phase is finished, and the report generated. 5/31/2022 - The ASI has identified an accessibility compliance tool that will meet the needs of the Project and DHS has approved opening a firewall to facilitate a demonstration of that tool. The ASI completed a Proof of Concept for the tool and now needs to 1) receive DHS approval to use the tool, 2) purchase the tool, 3) configure the system to accommodate the tool, and 4) institute the tool into the delivery pipeline. 4/26/2022 - The ASI is evaluating four ADA testing tools for consideration due to high pricing for the tool selected in March. This tool was demonstrated to the ASI and appeared to provide the required reporting features and the needed integration with the BES architecture. A second ADA tool under review has a proof of concept scheduled for the week of 5/1/2022. The ASI has stated that little impact is expected from the delay in performing ADA compliance testing and that a tool will be tested and selected shortly. 3/28/2022 - The ASI testing lead confirmed that an ADA tool has been selected for consideration and a demonstration held. Next step is to execute a proof of concept within the BES application. To mitigate this risk, the ASI stated that applications identified by a tool or through manual evaluation to Section 508 criteria for web applications can be easily rectified with little impact to development and		9/9/21 - RAP: The ASI has invited the IV&V to make contact with the development team to review the results of the desk-top tool to gain insight. To date, the IV&V has not contacted the development lead to have further discussions on this topic.
63	The lack of early planning and coordination with interface partners may result in schedule delays.	Michael Fors	Finding - Risk	1/21/2021	Integration and Interface Management	The following planning and execution items have not yet been addressed and documented by the ASI. - Connectivity is planned to utilize a presently undefined ETS API Gateway; however, there is no evidence that details have been determined or documented in this regard. - There is little evidence of active and sufficient communication with interface partners for coordination, design, and testing activities, including those for interface partners, are neither resident nor managed within the Project Schedule. - A mitigation plan has not been developed to address the unavailability of interface partners during interface implementation after MOAs have been approved, testing dates have been confirmed, and communications have been frequent.	Interfaces is one of the areas where DDI projects often underestimate the time needed to effectively manage all the tasks and activities to successfully implement data sharing. A clearly defined communication plan and schedule that includes the coordination, planning, and execution activities along with milestone dates may minimize the risk of possible delays. In addition, after planning has been completed, interface partners will have to be available during interface implementation to ensure that the interfaces are properly tested before deploying the system to production.	OPEN 5. Complete all MOAs and obtain approval. 6. Confirm testing dates with interface partners in writing. COMPLETE 1. Establish a communication plan for each interface partner for the duration of the BES DDI activities. 10/29 COMPLETE 2. Identify and document all interface partners' contacts. COMPLETE 3/31/2022 3. Define a release schedule for each interface to include milestone dates, coordination, and execution and share with the interface partners. 01/04 COMPLETE 4. Determine which deliverable will include the details associated with the planned connectivity and detailed technical designs of all interfaces. 01/04 COMPLETE	Q4 2021	4	1	Low	Open	08/26/2022 - The statuses of the three remaining required agreements (DAGS, DLIR, HYCF) have not changed. 08/01/2022 - DHS executed the DPS agreement (MOA) on 07/20/2022. The statuses of the three remaining required agreements are as follows. The DAGS agreement is moving forward with design work. DHS reviewed the DLIR MOA and resubmitted it to DLIR. The latest draft of the HYCF was sent to the DHS Directors' office with feedback from BESSD and MQD. 06/30/2022 - There are 4 agreements outstanding (DAGS, DLIR, DPS, and HYCF). DHS plans to discuss the agreement at the next meeting with DAGS, which is tentatively scheduled for 07/06/2022. DHS is currently reviewing the DLIR, DPS, and HYCF agreements. 05/31/2022 - There were no changes to the interface communication plans in this reporting period. There are 5 agreements outstanding (DLIR, DPS, HYCF, DAGS, and CYRCA). DPS, HYCF, and DLIR have all been drafted and are going through reviews with DHS and the interested parties. DAGS has not been drafted by DHS; DHS is in discussions with the Department of Tax for an interface that would bypass DAGS. The CYRCA interface has been escalated within DHS as the business requirements CYRCA meets are being evaluated by DHS executive management. IVV has opened a new issue #79 related to vendor development delays for the task management software. 04/28/2022 - There were no changes to the interface communication plans in this reporting period. The DAGS, DLIR, DOH, and HYCF agreements are still outstanding. In addition, there is a new element to this risk regarding DLIR because the interface will not be able to offer additional data elements which DHS needs. 03/29/2022 - There were no changes to the interface communication plans in this reporting period. 02/25/2022 - There were no changes to the interface communication plans in this reporting period. 01/28/2022 - There were no changes to the interface communication plans in this reporting period. Based on		7/20/21 RAP - The IV&V team requests that the IV&V reassess the severity of this risk in light of the following reasons: a) the ATC schedule extension has made the urgency for tackling these tasks less than it was before that started lessening the schedule risk, b) the increase from Medium to High in May was based on a misunderstanding of the current state of the MOA's and contact metrics, c) substantial progress has been made against each of the In Progress recommendations, and it continues to trend in the right direction. In regards to
61	Poorly executed JAD and design sessions could lead to inaccurate design and rework.	Brad Molina	Finding - Issue	11/30/2020	System Design	ASI-led Workflow JAD sessions have been held for CMM, with the following concerns being observed. - No clear introduction to all participants on the goal of the JAD, overview on the process and the importance of their participation. - On many occasions the conversation needed to be driven by leading questions, as expected, but was instead lead by business users - Too much pause time when participants did not know the answer to a question; several occasions where complete silence on the call for 30 seconds or more - Lack of thought leadership from the ASI on how workflow could be designed to ease/improve process for client	The CMM Workflow JAD sessions restarted in November. DHS indicated some concern regarding the CMM Workflow JAD sessions, specifically; (1) fully prepared to facilitate discussion on topic of sprint, with adequate knowledge about business process and approach for design based on JAD/JAR notes and other pertinent material. Closed - JAD and design sessions should be lead by experienced senior BAs, with goals, objectives and results communicated to all participants. (additional Senior BA being added, rest of recommendation being met - Closed 4/30/2022) - The DHS and ASI product owners should actively participate to ensure the system meets the requirements, designed taking advantage of new technology and aligns to the 'to be' business process. (Closed 4/30/2022) - The ASI should back-track significant differences in design direction to determine the root cause to identify these items as early in the SDLC as possible. COMPLETE - The Product Owners should have more direct interaction with the development team, proactively seeking collaboration. 10/5/21 Complete - The Functional Design Document process, to include the Design Sprint concept, should be clearly defined and shared with all project team members. (Closed, 1/31/2022) - Invite IVV to all future design sessions and design sprints to allow IVV to observe and assess the effectiveness of the revised design processes. (Closed, 1/31/2022) - ASI and DHS should work together to vet the in-progress design with all SMEs for the area of focus. (being met by new design sprint process, closed 2/28/2022) - ASI staff all design sprint meetings with additional support staff to ensure the meetings are adequately documented and ASI Business Analyst are not running the meetings alone. Complete 7/31/2022		ASAP	2	5	Med	Open	8/31/2022 - The ASI's addition of senior BAs to the design sessions has resulted in improvement. The Senior BAs offer guidance to ensure the project team remains focused on the design. Unfortunately, one of the Senior BAs has left the project so it is unknown if this practice will continue for all BES design sessions. 7/31/2022 - Although the ASI has implemented preparatory sessions for their Business Analysts (BAs) prior to design Sprint Day 1, IVV continues to observe occurrences of BAs not being fully prepared for the initial session. DHS has also raised concerns that the ASI support admins are not always assigned to meetings, leaving the BA solely responsible to lead discussions and capture notes, update artifacts, and capture action items. DHS requested the ASI to address these concerns going forward. 6/30/2022 - The ASI continues to revise the Design Sprint process by engaging the DHS SMEs and ASI systems analysts earlier in the process and conducting prep sessions with the ASI Business Analysts (BA) prior to each Sprint. These pre-sprint sessions with BAs are starting to address the remaining recommendations. IVV will continue to observe and look for impactful results from these latest changes to the process. 5/31/2022 - The ASI instituted a new process to align ASI BAs to similar Use Cases to build knowledge of common business processes, strengthening their facilitation during design meetings. DHS Lead Product Owners are also taking an active role to ensure the BES Design meets the requirements as noted in this month's positive feedback. 4/30/2022 - The ASI is working to mitigate the issues raised regarding inconsistent BA performance, including the migration of Senior BA to CMM team and providing additional training/onboarding for new BAs. Additionally, a System Analyst will participate in early days of design sprints to help with initial discussions of design. The IVV team and DHS look to observe improved facilitation in design sprints as these changes take effect. An additional recommendation		9/9/21 RAP - The IV&V does participate in many facets of the design process including screen mock up reviews, backlog grooming sessions, and Sprint demo's. Product owner discussions are meant to have limited participation. The team is concerned about the participation of the IV&V for two main reasons: 1) IV&V does not always stay silent in discussions on design despite assurances from the IV&V that it is not their role, and 2) IV&V participation typically drives what are meant to be informal
49	Poor quality project deliverables may impact system design, testing artifacts and the project schedule.	Brad Molina	Finding - Issue	4/16/2021	Project Management	In April, four BI-10 design deliverables and one Interface Control Document deliverable were submitted for client review. There was an average of 85 comments submitted for each of these deliverables. The documents exhibited erroneous information, a lack of a logical organizational flow, an insufficient level of detail, and a lack of understanding of the subject matter from both a functional and technical perspective. DHS logged this issue in the Project Issue Log for corrective action by the ASI. The ASI acted by conducting an internal root cause analysis and provided DHS and IVV the high-level results.	The staff time spent on reviewing deliverables is exceeding the plan for all project entities and has caused schedule delays due to the associated rework needed for remediation. If poor quality deliverables continue to be produced and submitted for review, this can continue to result in unproductive use of time, unanticipated rework, misguided development and testing activities, potentially unfulfilled functionality, and additional schedule delays.	- IVV recommends that a facilitated root cause analysis be performed by the ASI with DHS and IVV 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, IVV recommends immediate action be employed to resolve quality concerns on in-process deliverables prior to submission of subsequent deliverables] Closed 7/30/2021 - ASI reviews its Quality Management Plan to ensure that the Project is working within the guidelines of this Plan document. 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. IVV has not seen evidence indicating the ASI is utilizing metrics to measure its process and product quality. - ASI verifies that the information in design and testing artifacts is kept in sync and consistent. (closed 5/31/2022) - ASI perform a root cause analysis with DHS and IVV in attendance to determine the source of the design defects. (closed, 1/31/2022)	Immediate	2	2	Low	Open	8/31/2022 - No material update for this reporting period. 7/31/2022 - The ASI plans to provide resources to develop and report on quality metrics, which will be addressed in the CAP. 6/30/2022 - No significant change to the status of this finding although ASI has assigned a resource to research a solution for creating quality metrics. 5/31/2022 - The revised DDI process, in particular the design sprints, is bringing more focus and attention on design documents, which has a positive effect on quality when measured by the lower number of comments in deliverable reviews. IVV will validate this metric is fully documented in the Quality Management Plan, when published by the ASI. 4/30/2022 - No material update for this reporting period as IVV awaits updates to the Quality Management Plan. 3/30/2022 - When Release 6 final test results are published, IVV will re-evaluate this finding. 2/28/2022 - IVV continues to review the Release 0.6 test results and available metrics. The initial results show a positive trend, which is encouraging since Release 0.6 has the most complex functionality developed and tested by the project team to date. If the number of defects attributed to design remain low throughout Release 0.6 testing, the focus of this finding will be addressed. 1/31/2022 - Based on ASI and DHS testing and defect validation progress, IVV's root cause recommendation is complete. If remaining testing for all sub-releases in Release 0.6 shows a low cause of defects from design, the primary concern of this finding should be addressed. 12/31/2021 - The completion of Release 0.6 testing should provide clarity on overall defects, specifically on those related to design. Results consistent with already completed SSP testing for Release 0.6 could address the scope of this finding. 11/30/2021 - The results of the system test for release 0.6 showed a significant reduction in defects compared to prior releases, which could reflect improvement in the quality of deliverables. IV&V will review the root cause analysis when provide by the	06/30/2022 - New deliverables this month included BI-10 and BI-20. BI-10 was initially called back for quality issues, and the issues were corrected. DHS is not comfortable with BI-10 re-format, will be revised again.	7/30/21 RAP - The ASI team will review and respond to this issue again when a material update is made by the IV&V. We also recommend the rethinking of the first recommendation based on the assessment from the IV&V that this is a low risk. The tone, tenor, and substance of that recommendation is out of step with a risk perceived by the IV&V for a number of months now to be low. 4/23/21 rap - The ASI team agrees that the full embrace by the project of the Confluence tool has improved the deliverable

ID	Title	Reporter	Finding Type	Identified Date	Category	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Status Update	Client Comments	Vendor Comments
47	The COVID-19 pandemic and the related "stay at home" order could hinder project activities and negatively impact the project schedule and budget.	Michael Fors	Finding - Risk	3/29/2020	Project Management	On 3/23/2020, the Governor of Hawaii issued a "stay at home, work from home" order that has reduced state departments' ability to be fully functional as the large majority of state workers will be required to work from home/remotely at least until the end of May and some offices may be completely shut down until that time as well. Unclear if the order will extend beyond that date.	DHS stakeholder participation in key activities could be significantly hindered, not only by working remotely but also by the need to focus on delivering services to beneficiaries. Planned key activities such as design sessions may be facilitated remotely which may impact the quality of the sessions. Going forward, most if not all project activities will more than likely be conducted remotely until this crisis passes. The DHS project team will soon lose some key members of the PMO, the PMO lead will retire on 4/30/20 and another key member in June 2020. DHS has concerns that the state could experience a significant loss of revenue due to COVID, which could lead to DHS budget challenges. If the state/DHS institutes a hiring freeze, DHS PMO may not be able to replace these key resources. Additionally, if the state institutes furloughs, DHS project team resources could be further constrained. Unclear if the state budget challenges will impact overall project funding.	- Continue to make efforts to setup, train, and assist new stakeholders on remote work devices and tools and continue to assist stakeholders with becoming 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. - In progress - 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 regard to impacts of COVID, as well as clarifying communications as to what will remain the same. - Complete - Explore options for freeing up key BESSD SME's to work on the project. - Complete - Project leadership continue to encourage independent phone conversations to enhance and accelerate communications, and for team members to not wait for meetings to converse.	ASAP	2	2 Low		Open	08/30/22 - No material update for this reporting period. 07/31/22 - No material update for this reporting period. 06/30/22 - The ASI has stated they have removed the vaccination requirement for working in person and are encouraging staff to spend time in the office. DHS team members are still not required to work in the office but DHS is also encouraging office time. Three DHS team members currently work out of the ASI's downtown Honolulu office. 05/31/22 - The ASI and their subcontractor are making efforts to increase in-office/in-person work which could help to increase productivity and communication as well as overall quality of project work. 04/29/22 - No material update for this reporting period. 03/31/22 - State leadership has rolled back most COVID mandates this month, however, most individual State departments have been given the option of not requiring their staff to work in-person. DHS will likely maintain remote work policies for the foreseeable future. IVV recommends DHS consider strategically requesting in-person meetings for discussions that can be significantly more productive in-person. 2/28/22 - The State of Hawaii is planning on eliminating most COVID mandates as of 3/5/22. In-person meetings could improve collaboration for design and other sessions, if the Project elects to increase in-person meetings. 1/31/22 - The ASI has reaffirmed that remote meetings are a less effective form of communication than in-person meetings and therefore, COVID continues to have a negative impact on the quality of some project activities, albeit difficult to quantify. 12/31/21 - Though Omicron COVID cases are surging, the project has indicated they do not plan to make changes to current protocols and do not expect this surge will materially impact the project. 11/29/21 - The ASI has transitioned their team from working remotely to primarily working in their Honolulu office as of October 2021. It remains unclear whether the new COVID variant (Omicron) will disrupt project activities. 10/28/21 - No material	06/30/2020 - Office opening may be delayed until September/October. TBD.	7/30/21 RAP - The ASI agrees that COVID at this time is likely a low risk to both schedule and budget for the project despite some increases related to the delta variant. The ASI team continues to maintain social distancing in the office in line with State mandates. However, the team has essentially reached the new normal in Honolulu. This includes fewer resources travelling and more conference calls; however, the project has adjusted to the lack of in person meetings. In our off-shore office, we still have staff working from home.
43	DHS PMO project team members have transitioned off the Project, which may cause gaps in knowledge transfer and leadership on the Project.	Ryan Tan	Finding - Issue	1/10/2020	Project Management	As reported in various project meetings, several key DHS PMO, BES and ASI project team members are planning to retire or leave the project within the next few months or have already transitioned off the project. While there are plans and actions being taken, a formal transition/succession plan has not been documented. In January, the ASI announce and introduce an interim Project Manager, but a plan for a permanent replacement is not currently known.	The key resources leaving the BES Project provide knowledge and history of DHS and its software, solutions, and business processes, along with a level of consistency and continuity to the extended project team. This experience and knowledge is critical for the BES DDI and KOLEA Modifications, and planning efforts for BES Maintenance and Operations activities. Additionally, as per the budget, DHS stated if they are unable to fill these positions timely, DHS may fall out of federal funding compliance and lose the $37 million needed matching funds for continued development of BES.	2/28/2022 - DHS consider other options (Contractors, State employees borrowed from other agencies) to fill these positions if there is ongoing difficulty in finding permanent hires. 5/31/2021 - DHS continue to work with the appropriate organizations to identify the funds necessary to fill these positions. - In progress The state should document a transition plan for the project and PMO resources as identified in the RFP (reference RFP section 3.4.3 'DHS Staffing'). The plan should include the possible COVID-19 economic impact to the state budget, directly in relation to the project resources. - Closed The ASI should document a transition plan for each key resource as required by the RFP (reference RFP section 3.5.1.2 'Benefits Eligibility Solution Project Staffing'.) - Closed	ASAP	3	5 High		Open	8/31/2022 - DHS continues to seek applicants for the three PMO positions these positions remain unfilled. 7/29/2022 - DHS has received minimal applications for the open PMO positions therefore, they may fill the positions with contractors. IVV does not have visibility to the full impact of the delay in filling these positions. However, some of the administrative and contract management activities are significant so DHS assigned these activities to internal staff on an interim basis. 6/30/2022 - DHS continues to recruit for PMO resources. No other material updates for this reporting period. 5/31/2022 - DHS continues to recruit for PMO resources, but the three positions remain unfilled. However, some PMO responsibilities are being addressed through existing resources. For example, the contracted DHS PM has filled in leadership gaps and has positively impacted the Project. 4/28/2022 - No material updates for this reporting period. 3/31/2022 - DHS continues to recruit for three positions but received minimal interest to-date. 2/28/2022 - DHS posted the PMO positions but are having difficulty identifying candidates. While online metrics show there is interest and the positions are being viewed, as of this date, there has only been one application. 1/28/2021 - No material updates in this reporting period. 12/30/2021 - No material updates in this reporting period. 11/26/2021 - No material updates in this reporting period. 10/31/2021 - No material updates in this reporting period. 9/30/2021 - The BESSD Administrator, serving as the interim DHS BES Project Manager resigned from DHS. To mitigate the knowledge and leadership risk, DHS backfilled the DHS BES Project Manager with a contractor possessing extensive BES project experience. The Assistant BESSD Administrator will provide an active decision-making role in the project. IVV will monitor the impact of these project management changes. The remaining DHS PMO positions continue to be unfilled. 8/30/2021 - No material update in this	02/08/2021 - Brian Donohoe does not agree with IVV's high-criticality rating on this Finding (#43) and DHS rolled out the DHS Product Owner Roles and Responsibilities to the DHS team on January 29, 2021. (Gary provided the Final DHS Product Owner Roles and Responsibilities document to IVV on 02/8/2021). 06/30/2020 - Mark Choi is becoming more involved in the project. Involved in Arch decisions and PM decisions around tool sets, future vision, etc. Day to day PM working closely w/ Gary and Emerald. We have no insight into other DHS staffing.	4/23/21 RAP - From the ASI perspective, the changes to the project management of the BES project have provided little impact on the overall project. At this point, the knowledge transfer gaps have been closed and the leadership of the project remains strong hands from DHS. We recommend that the IV&V reassess the probability of impact and severity of impact and lower the overall rating for this risk. 3/3/2020 - The ASI PM stated the Project Coordinator position is filled and they will begin work on 3/9/2020, transition activities from Donna will begin
29	Uncertainty and/or a lack of communication around long term architecture decisions could impact the project budget, schedule, system design, and planning decisions.	Michael Fors	Finding - Issue	5/28/2019	Project Management	Some platform and BES system architecture decisions have yet to be made and socialized to the project. For example, the ASI and DHS have stated that they have reached agreement that the project will move forward with implementing two Siebel instances (one for KOLEA, one for BES), but this is not currently reflected in the project change log or the project decision log. It remains unclear if the details of the rationale for this decision or the plan for integrating the two instances post go-live have been thoroughly vetted and/or documented. Further, there may be some uncertainty around whether when/if all environments (including KOLEA and BES production) will be moved to the cloud.	The current project architecture and design should be as representative and inclusive of all known future solution plans as possible. As an example, if KOLEA and BES are to move to a single instance of Siebel in the future, planning for that integration should be incorporated into the project now. If such significant future changes are not planned for now, the project is likely to see increased complexity, rework, and costs when integrating the two systems in the future.	- The ASI continue to make updates to the BI-12 System Architecture Deliverable with additional details as they become available and with any architectural changes made. - Complete - DHS should finalize the Portal strategy and implementation details and communicate clearly communicate out to stakeholders and project teams. Complete 3/31 - The Project should continue to vet possible architectural change impacts to the platform (e.g., ADA, Configuration Management tools), MandO, MQD, and BES systems before finalizing architectural decisions. - DHS continue to request ASI perform due diligence in any recommendation for foundational architecture change decisions and continue to review with appropriate DHS stakeholders to assure a common understanding of the implications of these decisions. - The Project should continue to ensure communication between development leads and architecture leads to assure optimal collaboration on possible architecture changes that could impact decisions in each area. - Maintain current communication 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.	ASAP	2	2 Low		Open	8/30/22 - No material update. 7/31/22 - IVV remains concerned with the lack of clear communication around the planned configuration management tool and its intended use. DHS prefers Service Now but it is currently not funded, and IVV is unaware of contingency plans in the event Service Now funding is not approved.. The project is currently assessing the additional level of effort that will be required to comply with the latest revision (Revision 5) of Federally required security controls. IVV is concerned that the move to Revision 5 and potential impact to the project architecture have not been broadly communicated to stakeholders. 6/30/22 - The ASI has stated that their cloud infrastructure will continue to evolve as the technology improves or the cloud provider(s) make changes and that some architecture decisions have yet to be finalized (e.g. use of Splunk vs. Dynatrace). IVV has little to no visibility into whether these changes are being effectively communicated to, or vetted by, the right stakeholders. Further, the Project has previously stated their intention to utilize ServiceNow (SN) for Configuration Management (CM), however, it remains unclear if progress has been made on finalizing this decision, how it will be used, how it will be licensed, division of responsibility between the ESI/DHS/ASI, and the status of funding for licenses. 5/31/22 - The ASIs addition of resources including backfilling of key positions may help to increase communication of architecture changes. The ASI stated they are evaluating the benefits of moving the BES portal (SSP) off Oracle DBMS. 4/29/22 - The ASI OCM team is developing a communication plan for communicating the 2-portal strategy, which may include a portal overview walkthrough with the project team and videos prepared for DHS stakeholders. 03/31/22 - The ASI has onboarded a new Lead Architect who will be responsible for managing the system infrastructure which should improve clarity around governance, capabilities of the different	06/30/2020 - Combined application is still planned. App still not finalized by DHS. From Arch perspective, we are building in Liferay. Future integration of the portals is still to be determined, but is not more complex than originally planned for data sharing. If change is made to Adobe, this would require a CR.	4/23/21 rap - The ASI and DHS continue to refine the final plan for the two portal vision. We expect that final decisions will likely be made during this reporting period and communicated to the project. This also refers the IV&V to our February update regarding Recommendation #3. From our perspective all necessary actions are complete. If the IV&V does not believe it is Complete we request supporting detail. 4/23/21 rap - The ASI and DHS continue to refine the final plan for the two portal vision. We expect that final decisions will
2	Late delivery of project deliverables has caused schedule delays.	Ryan Tan	Finding - Issue	11/28/2018	Project Management	Based upon the project schedule dated 11/26/18 (refer to schedule for specifics), several due dates for project deliverables have been missed. As of the date of this report, these deliverables include the Project Management Plan (PMP), which is the formal document that is used to manage the execution of the project. In some instances, this risk may be compounded by a backlog of Deliverable Expectation Documents (DED) requiring approval and acceptance from the State.	Late deliverables can lead to schedule impacts and too many late deliverables may cause significant disruption to schedules or delays. ***OLD****Without a PMP that depicts all Project Management processes, the project can suffer unplanned consequences in scope, schedule, cost, and quality parameters. Without a schedule that provides the required level of detail to manage the work, the project is at risk to be successful.	IN PROGRESS Despite not yet having a revised baseline schedule, continue monitoring and analyzing deliverables that may have impact to the critical path Complete 5/31/2021 - When the revised schedule is published the project team should restart the weekly practice of reporting actions being taken for late tasks and develop mitigation plans for those tasks that may be late. - Complete 4/30/2021, 7/29/2021, 12/30/2021 - DHS and the ASI agree to a revised schedule against which project deliverables can be managed. 9/30/2020 Recommendation - IVV 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). - Closed 8/31/2020 Recommendations; - 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 IVV to include the Release 0.1 lessons learned. - Closed - Establish the process for DHS and the ASI to mutually agree to the revised project schedule baseline. - Complete - Establish the process for on-going schedule management and weekly updates, utilizing the Schedule Management sub-plan of the Project Management Plan (BI-04). - Complete 5/31/2020 - Finalize the updates to the project schedule to address the outstanding items/issues identified by DHS and IVV. - Closed. 5/31/2020 - Establish the process for DHS and the ASI to mutually agree to the revised project schedule baseline. - Closed 3/31/2020 - Add all tasks that have been performed or planned to be performed in the interim schedule. Closed 5/30/2020 - effective 5/15/2020 the ASI is no longer maintaining the interim schedule. IVV recommends that the ASI complete the Project Management Plan deliverable, work with DHS and IVV for review and edit as needed, and attain approval of the PMP. This will help ensure that all processes within the project management entity are	TBD	3	3 Med		Open	8/30/2022 - The ASI is behind schedule with development activities which will impact the critical path. Without an approved schedule, it is difficult to determine what is behind schedule and what impacts late deliverables or activities will have to project deadlines. 7/29/2022 - Fewer project deliverables are delivered late, and critical path activities do not appear impacted when this happens since they are not dependent on those deliverables. For example, development delays found in Finding #80 do not appear to be caused by late deliverables. Schedule impacts from late deliverables are minimal during this stage of the Project as opposed to the planning/initiation stages where deliverables directly impacted subsequent activities. Given the reduced impact this finding has on the Project, IVV is lowering the criticality rating to 'Medium'. IVV has separate findings for the BI-5 Project Schedule and BI-13 Security Plan deliverables. 6/30/2022 - The ASI continues to monitor project activities that may impact the critical path and conduct meetings to address late activities remediation actions. Although some late activities may not impact the critical path, they may impact ASI and DHS staffing since they need additional time to do the scheduled activities. 5/31/2022 - The ASI has reported delays in development that may impact the project schedule. 4/28/2022 - The Project continues to conduct design sprints with varying degrees of success. Some sprints require additional time due to 1) not having the right resources involved early in the	7/20/21 RAP - The ASI will continue to refine the published schedule based on feedback from DHS and the IV&V while we work through the final change request for the ATC which is nearing completion. Regarding the recommendations: Recommendation #1: Based on progress made to date, the ASI is hopeful, that we can agree in principle on the ATC change request in July and have a final schedule published by the end of the month. Recommendation #2: The team has reinstituted every other week schedule meetings and is tracking actions be taken on late work on