OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

July 19, 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 (Jul 19, 2022 13:29 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: May 1 – 31, 2022

Submitted: **June 14, 2022**

PUBLIC
CONSULTING GROUP

Solutions that Matter

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Solutions that Matter

Executive Summary

Executive Summary

The inability of the BES Project Team to develop and deliver to a planned schedule continues to be at the forefront as a significant risk to the project. The ASI presented a revised schedule to DHS for their approval, yet delays have already been communicated by the ASI in the development of Release 8, meaning further changes to the schedule are imminent.

The lack of resources to effectively plan, manage and deliver the required security and privacy requirements along with the lack of progress on developing the GCP change request are two other significant risks to the project. Although some actions are being taken, it is unclear if these risks will materialize into further delays or costs to DHS.

On a positive note, the DHS Lead Product Owners are making an impact in the design process. Their active contributions and leadership have ameliorated some of the IV&V concerns raised. The ASI made further adjustments to the design sprint process and staffing assignments in response to lessons learned. IV&V will continue to report on the results of these improvements.

Mar	Apr	May	Category	IV&V Observations
H	H	H	Project Management	IV&V raised the GCP change request finding to a High-criticality rating. The unapproved project schedule and the probability of needing additional time to complete the Project also inform the criticality rating for this category This category has been at a high criticality rating since July 2020 (23 months).
M	M	M	System Design	The Design Sprint process continues to show increased effectiveness. IV&V added a positive finding this reporting period to highlight the contributions of the DHS Lead POs to the design sprints. As more use cases go through design, the ASI continues to refine and adjust the design sprint process.

Executive Summary

Mar	Apr	May	Category	IV&V Observations
(M)	(M)	(M)	Configuration and Development	IV&V continues to see inconsistent use of the SDLC process causing confusion within the project team. IV&V awaits the expected benefits from the reassignment of ASI leads and added architects to improve communication of the SDLC.
(L)	(L)	(M)	Integration and Interface Management	Coordination of needed changes with two interface partners is currently being discussed and may result in schedule impacts. Additionally, the "Current" task management application is also under review to determine if the interface partner can meet the requirements within the planned timeframe for BES.
(M)	(M)	(M)	Testing	The ASI mitigated the risk related to the number of defects found in testing, and we have retired the related finding. An accessibility tool to measure ADA compliance passed a Proof of Concept and the ASI is planning a BES demonstration.
(H)	(H)	(H)	Security and Privacy	The DHS Security Analyst departed as expected in the reporting period and the IV&V risk has been classified as a High-criticality issue. The ASI continues to try to fill their open Security Architect position. IV&V remains concerned with the lack of key security resources from both the ASI and DHS.

IV&V Findings and Recommendations

IV&V Findings and Recommendations

As of the May 2022 reporting period, PCG is tracking 16 open findings (7 risks, 9 issues) and has retired a total of 56 findings. Of the 16 open findings, 7 are related to Project Management, 2 in Integration and Interface Management, 2 in Testing, 2 in System Design, 1 in Configuration and Development, and 2 in Security and Privacy. The Positive finding in System Design does not appear in these charts.

Open Risks & Issues

Legend:
- Open - Med
- Open - Low
- Open - High
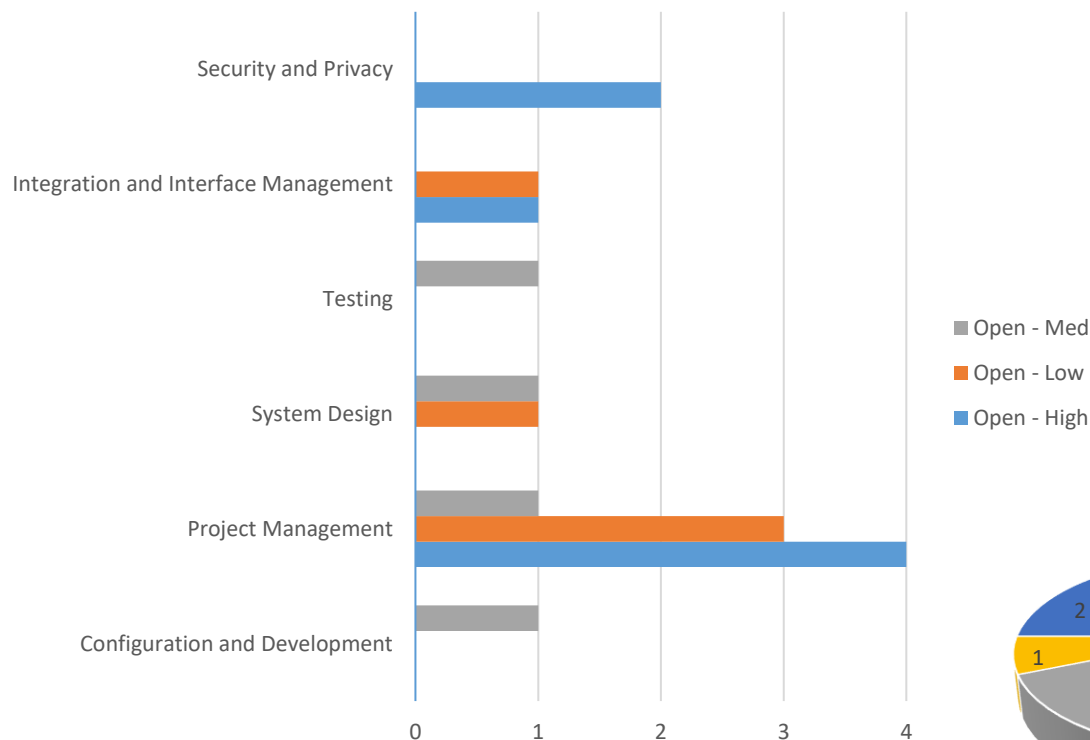
Open Risks & Issues by Category

Legend:
- Configuration and Development
- Project Management
- System Design
- Testing
- Integration and Interface Management
- Security and Privacy
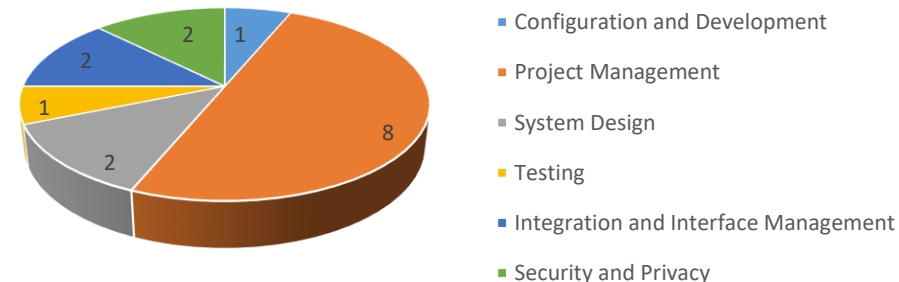
IV&V Findings and Recommendations

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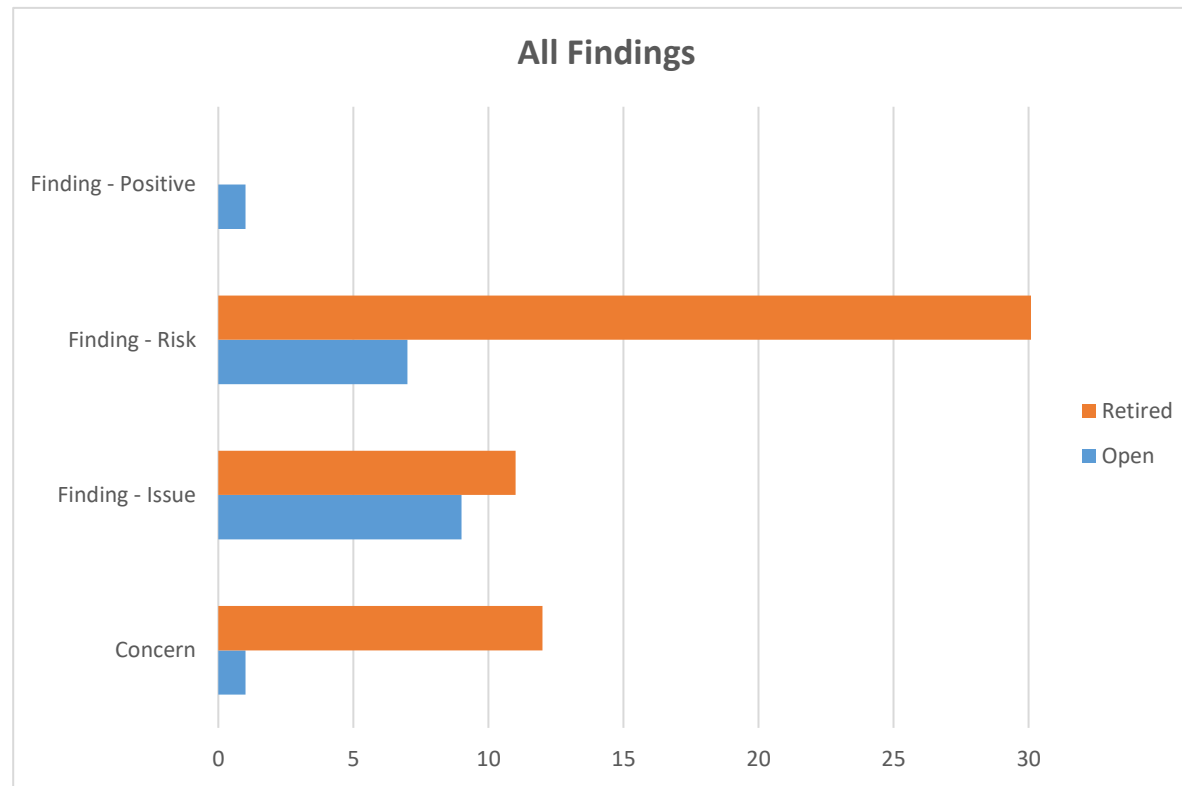
All Findings

IV&V Findings and Recommendations

Findings Retired During the Reporting Period

#	Finding	Category
60	**Risk – System Integration of the BES Modules (CMM, FMM, SSP) will be developed in the later releases vs. a continuous integration model within each release which may cause schedule delays.** The ASI remains confident that the efforts they've made to mitigate this risk, including planned completion of some integrations earlier in the schedule and stubbing out some interfaces that return dummy data, will prove sufficient. IV&V has retired this finding based on actions taken by the ASI.	Integration and Interface Management
66	**Issue – The number of issues/defects found during testing may cause planned work in the future sprints to be delayed due to the resolution and retesting of issues/defects.** The ASI addressed this finding by instituting the quality metric Defect Leakage as a standard testing metric. This metric is evaluated during testing meetings and shows defects are identified early in the testing cycle. The ASI categorizes defects by Root Cause to help with understanding and correcting behaviors contributing to introducing defects. Corrective actions have been taken by the ASI that resulted in documenting fewer defects. This finding is retired with an understanding that the Project continues to monitor the quality metric for Defect Leakage throughout the project lifecycle. If the current positive trend of identifying defects earlier in the testing lifecycle does not continue IV&V will open a similar finding. Note: Defects categorized as "Not a Defect" are being evaluated by IV&V to determine if they have been correctly categorized.	Testing

IV&V Findings and Recommendations

Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
70	**Insufficient configuration management could lead to development confusion and reduce the effectiveness of defect resolution.** No material update in the reporting period.	Configuration and Development

IV&V Findings and Recommendations

Findings Opened During the Reporting Period

#	Finding	Category
78	**Positive – DHS Lead Product Owners demonstrate effective leadership** **Observation**: The lead DHS Product Owners show strong leadership skills during the daily design sprints, which positively impact the outcomes of these meetings. In design sprints where the meeting facilitator was struggling, the PO leadership moved the conversation in a direction that drew out needed information regarding the design/use case at hand. The DHS POs are more assertive regarding their input on the proposed design and use their deep experience with DHS business processes to make sure the design aligns with the needs of DHS. The POs have shown to be highly motivated to make these sprints successful for the Project and DHS. The DHS PM's strong support and contributions to the revised Design Sprints, and related support for lead Product owners, has directly impacted the process in a positive way. **Significance**: The Use Cases and Functional Designs may not align with the needs of DHS without the strong contributions of the Product Owners. IV&V observes positive approval from SMEs and other product owners during prototype meetings and importantly, approval to move forward to development, keeping the overall Project progressing. The contributions by the Lead POs has also helped mitigate the open finding around Design Sprint facilitation (Finding 61) by getting the conversations started and ensuring it stays focused on DHS requirements. Confusion regarding the DDI process (Finding 16) is also mitigated occasionally by Lead POs, who in many cases have a much deeper level of experience with the design sprint process and lead the team through required steps and rituals.	System Design

IV&V Findings and Recommendations

Findings Opened During the Reporting Period

#	Finding	Category
79	**Issue – External vendor delays in development of the BES task management system (Current) interface have impacted the project schedule. Criticality Rating - High** **Observation**: The BES Project expected the C!A developed Current interface (aka., webhook) to be completed by 04/07/2022. C!A 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 C!A. The webhook is currently holding up the design of the CF44 – Manage C!A Data use case for Release 0.8. **Significance**: Current (previously known as ePathos) is a task management system developed by the Change and Innovation Agency (C!A). 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 ASI has stated that webhook is required before some critical path development tasks can commence.	Integration and Interface Management

Recommendations	Progress
• Ensure that there is an agreement between DHS and C!A to address roles/responsibilities and outcomes.	Not Started
• Schedule recurring meetings with C!A to ensure consistent communication between the DHS, the ASI, IV&V, and C!A.	Not Started
• Reconfirm testing dates with C!A and update the Current Interface Communication Plan.	Not Started

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
2	**Issue – Late Delivery of project deliverables has caused schedule delays**. The Project continues to refine SDLC processes to improve project schedule estimates. Although the schedule has not been approved, the ASI continues to monitor project activities that may impact the critical path and conducts meetings to address late tasks. The ASI has reported delays in development that may impact the project schedule.	H

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.** The ASI's addition of resources including backfilling 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.	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 recruit for PMO resources, but the three positions remain unfilled. In the interim, some PMO responsibilities are being addressed by existing resources. For example, the contracted DHS PM has filled in leadership gaps and has positively impacted the Project.	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.** The ASI and their subcontractor are making efforts to increase in-office/in-person work which could help to increase productivity and communications as well as the overall quality of project work.	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.** 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. IV&V will validate this metric is fully documented in the Quality Management Plan, when published by the ASI.	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
• ASI verify that the information in design and testing artifacts is kept in sync and consistent.	Complete

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.** IV&V 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 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.	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.** A draft project schedule was submitted for DHS approval. It incorporated additional DHS resources into the design sprints and extended the duration of Final Acceptance Testing from 40 to 60 days. DHS approval of this schedule is anticipated in June 2022. IV&V remains concerned with the accuracy and validity of the BES Project schedule due to past performance of the ASI and known current development delays.	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.** IV&V 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.	M

Recommendations	Progress
• Consider adding DHS resources as needed.	In process
• 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.** 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. IV&V has opened a new issue #79 related to vendor development delays for the task management software.	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

Configuration and Development

#	Key Findings	Criticality Rating
16	**Issue – Lack of clear understanding of the DDI approach may reduce effectiveness of all SDLC Processes.** DHS Product Owners have noted that some agreed-upon processes (e.g., the reinstatement of formal DHS prototype approvals) were bypassed at some point and now have been reinstated, which created confusion. However, overall understanding of the DDI process continues to improve as DHS leads become more adept with the SDLC and project processes.	M

Recommendations	Progress
• ASI make available their DDI approach documentation/materials for stakeholders to review and/or refresh their knowledge on demand.	In process
• The Project monitor DHS product owner productivity, ability/willingness to provide effective feedback to the ASI for design and other important decisions and provide coaching as needed to assure their effectiveness in their role.	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 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 finding.	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 is adding two resources; a cloud architect and software development architect, as mitigation strategies for this risk. However, the foundational architecture of BES is complex which may limit DHS' ability to transition the ongoing maintenance and support of BES to another vendor or to DHS resources. It remains unclear whether the overall benefits of the numerous modern tools (e.g., better prevention, early detection of infrastructure problems, and quicker recovery from system failures) will outweigh the overall cost, complexity, and level of expertise required to maintain. Development of accurate architectural artifacts must continue to be a focus for this Project.	L

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

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.** 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.	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 to begin the Pilot Phase.** 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.	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 have a security SME attend the weekly security planning meetings and workshops.	Not Started

IV&V Findings and Recommendations

Security and Privacy

#	Key Findings	Criticality Rating
77	**Issue – Insufficient DHS Security Resources on the BES Project may lead to delays in completing security tasks and the System Security Plan (SSP)** IV&V changed this finding from a risk to an issue due to the resignation of the DHS Security Analyst assigned to the BES Project. DHS has identified a temporary replacement resource and are taking action to acquire contract resources to support the BES Project.	H

Recommendations	Progress
• DHS contract for a qualified Security resource(s) as soon as possible to support BES while the Department security positions are filled.	In process
• DHS aggressively recruits and promotes the open DHS Security positions to obtain a pool of applicants.	In process
• DHS and ASI agree in writing to clear expectations of what security efforts the ASI should complete while the DHS fills positions.	In process
• Fill all available DHS Security positions as soon as possible.	Not Started

IV&V Status

IV&V Engagement Status

IV&V Engagement Area	Mar	Apr	May	Comments
IV&V Budget	🟢	🟢	🟢	
IV&V Schedule	🟢	🟢	🟢	
IV&V Deliverables	🟢	🟢	🟢	PCG submitted the final April IV&V Monthly Status Report.
IV&V Staffing	🟢	🟢	🟢	
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 May reporting period:
    - Completed – April Monthly Status Report
    - Ongoing – Review the BES Project Artifacts and Deliverables
    - Ongoing – Attend BES Project meetings, (see <u>Additional Inputs</u> pages for details)
    - Reviewed available ASI Original Contract and BES Optimization contract amendment documentation

- Planned IV&V activities for the June 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-14 Release 0.6c Technical Design Document - SSP (Iteration 1)	5/31/2022	1.0
BI-14 Release 0.6c Technical Design Document - Administrative hearings (AH) (Iteration 1)	5/31/2022	1.0
BI-10 R0.7 CMM Verifications (Iteration 1)	5/27/2022	1.0
BI-20 Release 0.8 BES Test Scenarios, Cases, and Scripts (Iteration 1)	5/25/2022	1.0
BI-15 Release 0.6 Fully Configured and Developed System (Iteration 1)	5/26/2022	1.0
BI-14 Release 0.6d Technical Design Document - CMM (Iteration 1)	5/24/2022	1.0
BI-22 Release 0.6d System Test Report (Iteration 1)	5/23/2022	1.0
BI-25 Training and Knowledge Transfer Plan (Iteration 1)	5/20/2022	V1.0
BI-10 Release 0.7 FMM Overpayments (Iteration 1)	5/17/2022	V1.0
BI-22 Release 0.6d System Test Report – DRAFT	5/9/2022	V1.0
BI-25 Training and Knowledge Transfer Plan – DRAFT	5/6/2022	V1.0
BI-21 Release 0.5 Updated and Completed Detailed Functional and Technical RTM (Iteration 1)	5/6/2022	V1.0
BI-15 Release 0.6 Fully Configured and Developed System – DRAFT	5/5/2022	V0.2
BI-10 Release 0.6d CMM Interview (Iteration 2)	5/3/2022	V1.0
BI-14 Release 0.6d Technical Design Document - CF (Iteration 1)	5/3/2022	V1.0
BI-14 Release 0.6c Technical Design Document - Administrative hearings (AH) - Draft	5/2/2022	v0.2
BI-14 Release 0.6c Technical Design Document - SSP - Draft	5/2/2022	v0.7

Additional Inputs – Artifacts

Deliverable 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)	5/24/2022 5/13/2022 4/30/2022	V0.26 V0.25 V0.24
BES Weekly Status Report	5/25/2022 5/18/2022 5/11/2022 5/4/2022	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

Additional Inputs

Meetings and/or Sessions Attended/Observed:

1. Weekly Platform Status Meeting – 5/3/2022, 5/10/2022, 5/17/2022, 5/24/2022, 5/31/2022
2. Bi-Weekly Project Status Meeting – 5/11/2022, 5/25/2022
3. Bi-Weekly BES PMO and IV&V Touch Base – 5/12/2022, 5/26/2022
4. Weekly BES Dev Stand-up – 5/4/2022, 5/11/2022, 5/18/2022, 5/25/2022
5. Weekly SSP Backlog Grooming Session – 5/4/2022
6. Weekly CMM Backlog Grooming Session – 5/10/2022, 5/18/2022, 5/26/2022, 5/31/2022
7. Weekly BES Project Schedule Review Meeting –
8. IV&V Team Meeting – 5/2/2022, 5/5/2022, 5/9/2022, 5/12/2022, 5/16/2022, 5/19/2022, 5/23/2022, 5/26/2022, 5/31/2022
9. Weekly DHS-Unisys Security Touchpoint – 5/24/2022, 5/31/2022
10. BES Testing Touch base – 5/5/2022, 5/20/2022
11. HI DHS BES April Draft IV&V Report Review – 5/11/022
12. Bi-Weekly DHS and IV&V Touch Base – 5/3/2022, 5/18/2022, 5/31/2022
13. ASI/IV&V Mid-month Check-in – 5/17/2022
14. ASI and IV&V Pre-Draft Report Review – 5/3/2022
15. HI BES ASI and IV&V Touch Base - Functional Team – 5/17/2022
16. Implementation Planning – 5/4/2022, 5/18/2022
17. CF09a Generate Case Notes – 5/2/2022, 5/4/2022
18. R0.11 Correspondence Specs – 5/2/2022, 5/4/2022
19. PE01a View Eligibility History – 5/2/2022, 5/4/2022, 5/6/2022, 5/13/2022, 5/17/2022, 5/18/2022
20. CO01b, CO01c, CO01d and CO01e – 5/3/2022
21. R0.11 Report Specs – 5/3/2022, 5/5/2022, 5/9/2022, 5/11/2022, 5/13/2022, 5/19/2022, 5/23/2022
22. D-SNAP Process / Enhancement – 5/3/2022

Additional Inputs – Continued

Meetings and/or Sessions Attended/Observed:

23. FM15 Manage Repayment Plans – 5/3/2022, 5/5/2022, 5/6/2022, 5/9/2022, 5/11/2022, 5/12/2022, 5/17/2022, 5/19/2022, 5/23/2022
24. FM07a Receive FIS Data - Returned Direct Deposit – 5/5/2022, 5/9/2022, 5/11/2022, 5/13/2022, 5/17/2022, 5/19/2022, 5/20/2022
25. CF09b Generate Client Notes – 5/6/2022
26. R0.12 Correspondence Specs – 5/6/2022, 5/16/2022, 5/18/2022, 5/24/2022, 5/26/2022, 5/31/2022
27. CF08a Manage Client Notes – 5/10/2022, 5/12/2022, 5/16/2022, 5/18/2022, 5/20/2022, 5/31/2022
28. CO54a BEER Data – 5/10/2022
29. CO50 Manage SAVE Data Clean-up – 5/16/2022, 5/24/2022
30. MDM Consent Management Design Sessions – 5/17/2022, 5/24/2022, 5/31/2022
31. CF70 Manage Approvals – 5/23/2022, 5/25/2022, 5/27/2022
32. FM50o Receive FIS Data - Account Activity File – 5/23/2022, 5/25/2022, 5/27/2022
33. FM03 Maintain Funding Source – 5/27/2022
34. Weekly Functional PMO Meeting – 5/2/2022, 5/9/2022, 5/16/2022, 5/23/2022, 5/31/2022
35. Data Conversion PMO meeting – 5/2/2022, 5/9/2022, 5/16/2022, 5/23/2022
36. Weekly Interfaces - PMO Meeting – 5/2/2022, 5/9/2022, 5/16/2022, 5/23/2022
37. PMO Meeting Structure – Testing – 5/5/2022, 5/12/2022, 5/19/2022, 5/26/2022
38. PMO Meeting Structure - BES Development – 5/5/2022, 5/12/2022, 5/19/2022, 5/26/2022
39. PMO Meeting Structure - AH/MDM/SSP Development – 5/5/2022, 5/12/2022, 5/19/2022, 5/26/2022
40. [BI-14 Release 0.6c Walk-Through - Technical Design Document – SSP – 5/2/2022
41. R0.6d Sprint Demo CMM Interview Prep – 5/3/2022, 5/5/2022, 5/9/2022, 5/11/2022
42. [BES] BI-14 Release 0.6c Walk-Through - Technical Design Document - Administrative hearings (AH) – 5/3/2022

Additional Inputs – Continued

Meetings and/or Sessions Attended/Observed:

43. [BES] Screen Prototype Review - CMM CO01b, CO01c, CO01d and CO01e – 5/4/2022
44. [BES] Screen Prototype Review - CMM PE01a View Eligibility History – 5/4/2022
45. Design Sprint Process Modifications – 5/6/2022
46. R0.7 Entry SIT Go/ No Go – 5/6/2022
47. [BES] BI-15 Release 0.6 Walk-Through - Fully Configured and Developed System – 5/9/2022
48. Sprint Demo – 5/9/2022, 5/23/2022
49. CC requirements review – 5/10/2022
50. R0.6d Sit Go/ No Go Exit – 5/10/2022
51. BES] BI-25 Walk-Through - Training and Knowledge Transfer Plan – 5/10/2022
52. [BES] Screen Prototype Review - CMM PE01a View Eligibility History – 5/10/2022
53. BES Project Schedule Review – 5/11/2022, 5/18/2022
54. [BES] R0.6 Final Release Demo - Special Indicator & Interview – 5/12/2022
55. BES] BI-22 Release 0.6d Walk-Through - System Test Report – 5/13/2022
56. [BES] Screen Prototype Review - CMM PE01a View Eligibility History – 5/19/2022
57. [BES] Screen Prototype Review - FMM FM07a Receive FIS Data - Returned Direct Deposit – 5/24/2022
58. [BES] Screen Prototype Review - FMM FM15 Manage Repayment Plans – 5/24/2022
59. FMM Sprint Demo - FM06 Manage Bank Information – 5/25/2022
60. FMM Sprint Demo - FM04a Authorize EBT Cards – 5/26/2022
61. R0.7 SIT Go/No Go Exit – 5/27/2022

Appendices

Appendix A – IV&V Criticality Ratings

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

Appendix B – Findings Log

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

Appendix C – Acronyms and Glossary

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

Appendix C – Acronyms and Glossary

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

Appendix C – Acronyms and Glossary

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

Appendix D – Background Information

Systems Modernization Project

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

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

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

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

Systems Modernization IV&V Project

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

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

- BES DDI

- CCWIS DDI

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

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

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

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

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

Appendix D – Background Information

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

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

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

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

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

PCG's Eclipse IV&V® Technical Assessment Methodology

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

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

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

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

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

IV&V Assessment Categories for the BES Project

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

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

Solutions that Matter

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
79 External vendor delays in development of the BES task management system (Current) interface have impacted the project schedule.	Al Pangelinan	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 stated that webhook is required before some critical path development tasks can commence.	The recommendations include the following. 1. Ensure that there is an agreement between DHS and CIA to address roles/responsibilities and outcomes. 2. Schedule recurring meetings with CIA to ensure consistent communication between the DHS, the ASI, IVV, and CIA. 3. Reconfirm testing dates with CIA and update the Current Interface Communication Plan.	Q3	5		4 High	Open	06/02/2022: Issue created.		
78 DHS Lead Product Owners demonstrate effective leadership	Brad Molina	Finding - Positive	5/31/2022	System Design	The primary DHS Product Owners show strong leadership skills during the daily design sprints and positively impact the outcomes of these meetings. In design sprints where the meeting facilitator was struggling, the PO leadership moved the conversation in a direction that drew out needed information regarding the design/use case at hand. The DHS POs are more assertive regarding their input on the proposed design and use their deep experience with DHS business processes to make sure the design best aligns with the needs of DHS. The POs have shown to be highly motivated to make these sprints successful for the Project and DHS. The DHS PM's strong support and contributions to the revised Design Sprints, and related support for lead Product owners, has directly impacted the process in a positive way.	The Use Cases and Functional Designs may not align with the needs of DHS without the strong contributions of the Product Owners. IVV observes positive approval from SMEs and other product owners during prototype meetings and importantly, approval to move forward to development, keeping the overall Project progressing. The contributions by the Lead POs has also helped mitigate the open finding around Design Sprint facilitation (Finding 61) by getting the conversations started and ensuring it stays focused on DHS requirements. Confusion regarding the DDI process (Finding 16) is also mitigated occasionally by Lead POs, who in many cases have a much deeper level of experience with the design sprint process and lead the team through required steps and rituals.		Now	0		0 NA	Open			
77 Insufficient DHS Security Resources on the BES Project may lead to delays in completing security tasks and the System Security Plan (SSP).	Dustin Heath	Finding - Issue	4/29/2022	Security and Privacy	IVV has observed the DHS Security Analyst working alone on the BES SSP with the ASI. The amount of security work is more than one resource can effectively handle, including; 1) level of effort needed to effectively manage the ASI's security efforts, 2) DHS work needed to complete the SSP, and 3) daily security tasks supporting DHS. In addition, the DHS Security Analyst announced their resignation from DHS effective in May, leaving no BES security resources from DHS. Currently, all ASI and DHS security-related meetings for BES are canceled.	DHS has a significant role in ensuring that the security controls established for the BES application are appropriate and adequately implemented. There are areas of the BES SSP that include control implementations that DHS is responsible for implementing that need DHS to provide content to the ASI. Without sufficient DHS security resources to complete this effort, the BES project may be delayed. DHS Security also has an oversight responsibility that requires subject matter expertise in federal regulatory governance, risk, and compliance (GRC). DHS also needs a qualified security resource that can work with the ASI to ensure that the security efforts taken are in the best interest of DHS and the State of Hawaii.	• DHS contract for a qualified Security resource(s) as soon as possible to support BES while the Department security positions are filled. • DHS aggressively recruits and promotes the open DHS Security positions to obtain a pool of applicants. • DHS and ASI agree in writing to clear expectations of what security efforts the ASI should complete while the DHS fills positions. • Fill all available DHS Security positions as soon as possible.	Immediate	4		5 High	Open	5/31/2022 - IVV changed this finding from a risk to an issue due to the resignation of the DHS Security Analyst assigned to the BES Project. DHS has identified a temporary replacement resource and are taking action to acquire contract resources to support the BES Project.		
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. • 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 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	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 project schedule.		
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	Finding - Risk	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 when forced to develop to a schedule that is not accurate. It is a risk to the Project that the DHS/ASI Project Managers with reports and data that accurately reflect 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 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	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. 3/31/2022 - A revised schedule was not submitted in this reporting period, and the Project does not have an approved schedule. Updates to increase the Final Acceptance Testing duration and updates to the Design Sprint duration to reflect current DHS resource levels are still pending. Even with an updated Design Sprint schedule to accommodate existing DHS resource levels, it remains unclear if the Project will be able to meet the revised dates due to: 1) the complexity of the design sprint process, 2) the availability of DHS SMEs and POs when needed, and 3) the Design Sprint participants being able to competently perform in their respective roles. 2/28/2022 - The updated target for DHS to approve the project schedule is early March 2022. The ASI provided a version 20 draft schedule but is adjusting the schedule to increase the length of Final Acceptance Testing and to accommodate the estimated capacity of DHS resources during the Design Sprints. Even with a less aggressive Design Sprint schedule, it remains unclear if the Project will be able to meet the revised dates due to 1) the complexity of the design sprint process, 2) the availability of DHS SMEs and POs when needed, and 3) the Design Sprint participants being able to competently perform in their		
73 The planned BES infrastructure is complex which could be difficult to implement and lead to schedule/cost impacts.	mfors	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 outsource 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 implementing the planned infrastructure. • 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 and other product changes (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.	Next several month	2		2 Low	Open	05/31/22 - The ASI is adding two resources; a cloud architect and software development architect, as mitigation actions for this risk. However, the foundational architecture of BES is complex which may limit DHS' ability to transition the ongoing maintenance and support of BES to another vendor or to DHS resources. It remains unclear whether the overall benefits of the numerous modern tools (e.g., better prevention, early detection of infrastructure problems, and quicker recovery from system failures) will outweigh the overall cost, complexity, and level of expertise required to maintain. Development of accurate architectural artifacts must continue to be a focus for this Project. 04/29/22 - With the onboarding of the new Lead Architect, it remains unclear what efforts will be made to mitigate this risk. IVV recommends the project work to establish strong governance over how the various components will be utilized and maintained in order to simplify and control their use through standardized controls and monitoring. The ASI has stated, "The GCP scope definition will determine the nature and complexity of the environment to be implemented. The evaluation of tools and SaaS product solutions will include maintenance and support costs. Risk management methodologies will be included in the evaluation and selection process." Though the ASI has deemed this risk minimal given that this ASI will be owning M and O for the foreseeable future, DHS has concerns about their ability to do so. IV&V has added a new recommendation regarding governance. 03/31/22 - The ASI has onboarded their new Lead Architect who will be responsible for managing the system infrastructure which should improve clarity around governance, capabilities of the different infrastructure components and how they will be utilized. 02/28/22 - The ASI is onboarding their replacement Lead Architect in the coming weeks. The ASI has stated that the infrastructure, while complex, is sufficiently understood and manageable. The revised project schedule provides		

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
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 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 - The ASI 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	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 migrate 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 for IVV to participate in the writing of the change request. 2/28/2022 - IVV has requested a copy of the GCP change request from the DHS Enterprise Technology Officer. When received, IVV will review the GCP CR and provide comments. 1/31/2022 - IVV has requested a copy of the GCP change request from the DHS Enterprise Technology Officer. IVV waits to see if the ASI addressed our recommendations in the details of the CR. 12/31/21 - No material update in the reporting period. IVV waits to see if the ASI addressed our recommendations in the details of the CR delivered to DHS on 11/11/2021. 11/30/2021 - DHS has received information and pricing for the GCP CR from the ASI. The ASI and DHS are working to confirm the scope of this change request. IVV waits to see if the ASI addressed our recommendations in the CR details. 10/28/2021 - The ASI has not submitted the GCP Change Request to DHS. IVV recommends that DHS and the ASI agree to a firm delivery date for the change request. 9/30/2021 -		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	mfors	Concern	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 is known. 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.	• 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. • 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.	ASAP	2		2 Low	Open	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. 1/31/22 - 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 Management Database (CMDB). If utilized to its fullest extent, Service Now can effectively track system configurations and provide system support personnel with an effective means to resolve system bugs. IVV will continue to monitor for the effective build out of the CMDB and further elaboration by the ASI of their configuration management plans. 10/29/21 - The ASI has made progress in their configuration management (CM) planning, such as identifying who will fill the Configuration Manager position but have noted that full implementation of configuration tracking may be delayed as they prioritize build out of more critical components of the BES infrastructure. The ASI will work with DHS to solidify CM tool decisions. The project is currently considering replicating and improving on KOLEA's CM approach which only tracks the most critical configuration items (e.g., firewall and other security configurations) and creating a CM database (CMDB). It remains unclear if the ASI will utilize ServiceNow (currently in use at DHS) for their CMDB. The ASI is currently using bitbucket for configuration tracking purposes. 9/29/21 - The ASI has stated their intention to make updates to the Configuration Management Plan. It is anticipated that the		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 to begin the Pilot Phase.	Jeremy Riley	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 have a security SME attend the weekly security planning meetings and workshops. 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 meeting and provide ASI with proper guidance. FNS requirements should be documented as part of BI-13 Security Plan COMPLETE 3/31/2022	ASAP	4		5 High	Open	04/27/2022 – As of April 22nd, IV&V 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 meetings have been canceled between the ASI and DHS as the DHS security officer has resigned. Between the guidance that DHS has been providing on federal regulatory compliance (Pub 1075, MARS-E, FNS, NIST 800-53r5) and the lack of an ASI security architect and security SMEs to collaborate with DHS, security components are likely to stall until DHS and the ASI have adequate security staffing to continue with BES security-related work. A separate finding has been developed by IVV related to DHS security resources. 03/31/2022 – DHS has decided to use NIST 800-53 revision 5 moderate controls, and the ASI has been working on changing the control mappings in Confluence to the revision 5 standard. This significant effort is mitigated in part by the efforts the ASI already completed on the Rev 5 controls. The effort to define the security boundary of BES and the components that make up the system has taken a considerable amount of time and is incomplete. A security architect is essential to defining the security boundary of BES; however, the security architect position remains unfilled. Over the past month, no security SMEs from the ASI have attended the weekly meetings with DHS. The result is questions raised within the meeting not getting answered, and the response being deferred to the following week. 2/28/2022 - DHS and the ASI continue to populate the in-scope controls. There is renewed discussion regarding the use of Rev 5 controls as required by the IRS, where Rev 4 controls are required by FNS. DHS continues to determine the FNS requirements for go live and FNS' timelines for security approval. 2/2/22 - The format of the security and		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.
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.gov/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 8/30/2021 - The ASI should gain DHS' approval on the tool selected after the ASI validates it will perform as expected within the BES 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	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 problems 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 schedule. 2/25/2022 - The ASI team identified a new ADA tool to conduct 508 compliance testing. While a demonstration is planned to confirm the tool can work with the BES architecture, the ASI has stated that if an appropriate ADA tool is not found, a manual ADA testing effort will be conducted along with the ASI's use of an accessibility validation tool used during development. 1/31/2022 - No further demonstrations or communication regarding the use of an ADA compliance tool occurred during the reporting period. Note that this finding is mitigated by the ASI using a desktop ADA compliance checking tool during development. 12/30/2021 - No further demonstrations or communication regarding the		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.

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
63	The lack of early planning and coordination with interface partners may result in schedule delays.	Al Pangelinan	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 (Unit Test, SIT, UAT). - Interface planning and execution tasks and 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	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 discussions with the ASI, two recommendations are complete. 01/05/2022 - No changes to the interface communication plans in this reporting period. The ASI and DHS have been progressing although there are 3 MOAs awaiting approval and 3 unit-test dates awaiting confirmation. Due to the recent project schedule change and the 19-month addition to the Go-Live date, IVV has changed the priority to Low. 11/29/2021 - No changes to the interface communication plans in this reporting period. IVV has concerns regarding the 120-day certification process for the IRS interface, the DLIR modernization phase, and the modernization of the tax interface from a flat file to a direct web service with DOTAX. These new items may impact the project schedule, the existing		7/20/21 RAP - The IV&V team requests that the IV&V team 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 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	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) Do the JAD participants understand how the Case will be managed through workflow? (2) What improvements will be made in the new BES to support the users and clients? Incomplete or unclear JAD sessions with insufficient documentation could lead to a poor design, lacking the details needed to support business requirements; as well as missing opportunities to improve workflow and related system design.	- 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 facilitator should use their expertise to drive discussions through leading questions. - 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) - 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/IAR notes and other pertinent material.	ASAP	2	5	Med	Open	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 finding. 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 has also been added, focusing on BA preparation for Design Sprints. 3/30/2022 - DHS and ASI continue to ramp up design sprints, with positive movement in addressing this finding's open recommendations. IVV has observed some challenges, including Business Analyst confusion around Use Cases and needing to backtrack as new participants join design sprints mid-flight. Additionally, the ASI facilitators have stated the JAR/JAD notes from those sessions are not useful, which results in the project team revisiting requirements definition efforts already completed. Prototypes of more complex Use Cases in coming weeks should provide a clear picture if designs are meeting DHS business needs. 2/28/2022 - The Project adopted the recommendation to include DHS SMEs in the design process. DHS and IVV have observed improved DHS/ASI team collaboration and design session results. IVV notes that DHS may be taking on more responsibility than expected by leading some of the design sessions. The next step is to observe/review the results of the sprint prototypes to determine if the number of key issues raised by the stakeholders are reduced. 1/31/2022 - Based on progress to ASI, two of the recommendations are complete. The		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 PM that it is not their role, and 2) IV&V participation typically drives what are meant to be informal processes to more
49	Poor quality project deliverables may impact system design, testing artifacts and the project schedule.	Brad	Finding - Issue	4/16/2020	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 context. Poor quality deliverables could 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) computing 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	5/31/2022 - The 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. 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 identified 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 ASI. 10/31/2021 DHS testing team reported inconsistencies between wireframes and Functional Design Documents, causing challenges in creating test cases and resulting in defects in development. IVV and DHS are concerned that as the project moves to larger and more complex releases, these quality issues could negatively impact the project. IVV added	06/30/2020 - 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 management process.
47	The COVID-19 pandemic and the related "stay at home" order could hinder project activities and negatively impact the project schedule and budget.	mfors	Finding - Risk	3/29/2020	Project Management	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. The plan should include the possible economic impacts to the state budget directly related to project resources. - Update the OCM Plan to include any new activities or updates to planned activities to aid the organization through this COVID-19 pandemic in the short and long term. Complete - Send broad communications to stakeholders to assure clear understanding of changes to the Project with this regard to impacts of COVID as well as clarifying communications as to what will remain the same. - Explore options for freeing up key BESSD SME's work on the project. - Complete - Project leadership continue to encourage independent phone conversations to enhance and accelerate communications, and for team members not wait for meetings to converse.	ASAP	2	2	Low	Open	05/31/2022 - 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 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 update in reporting period. 9/29/21 - No material update in reporting period. 8/30/21 - The ASI has recently reported they will be closing their offices for at least 2 weeks given the escalating number of COVID cases. As work will be ongoing, they do not expect significant impacts to productivity. 7/27/21 The ASI has reported that their off-shore (India) team is back to full strength again after having some challenges with COVID. IVV remains	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. We expect

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
43	DHS PMO project team members have transitioned off the Project, which may cause gaps in knowledge transfer and leadership on the Project.	Ryan	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 did 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.	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	5/31/2022 DHS continues to recruit for PMO resources, 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 these 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. 1/28/2022 - 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 reporting period. 7/28/2021 - No material update in this reporting period. 6/30/2021 - No material update in this reporting period. 5/31/2021 - No material update in this reporting period. 4/30/2021- DHS reported the 'hiring freeze' has been lifted and are working to secure the budget for these positions. IVV will continue to monitor. 3/31/2021 - No material update to this finding in this reporting period. 2/28/2021 -No material update to this finding in this reporting period. Note - Previously this finding was addressing DHS PMO and DHS BESSD staff, they were split during this reporting period to	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 next week.
29	Uncertainty and/or a lack of communication around long term architecture decisions could impact the project budget, schedule, system design, and planning decisions.	mfors	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/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 are finalized. - 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	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 infrastructure components and how they will be utilized. The strategy for 2 portal integration has been agreed to by DHS OIT, MQD, ASI, and ESI, and communicated to the architects and project leadership. The Change Request has been distributed to DHS leadership for review and approval, the related project decisions have been logged, and the high-level architecture is available to the project team. 2/28/22 - IVV remains concerned that details of the proposed change requests have not been fully communicated to all project stakeholders. If DHS is not able to fund these changes, stakeholders could be left with little time to respond if exclusions are discovered late into the development phase. The ASI has stated they are close to onboarding a new lead architect; however, this resource will likely roll off the Project after 6 months. 1/31/22 - The ASI has yet to fully share and vet details of key change requests with all relevant stakeholders. The ASI plans to review these details with PACXA (subcontractor) in the coming weeks. 12/31/21 - Details of the outstanding draft Change Requests (CRs) have yet to be fully shared and vetted by all stakeholders and project impacts remain unclear. Delays in providing these details could leave the project and stakeholders little time to react to significant architecture or other CR changes. 11/29/21 - The ASI reported progress in finalizing details of the Two-Portal and GCP	06/30/2020 - Combined application is still planned. App still not finalized by	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. The ASI 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
16	Lack of clear understanding of the DDI approach may reduce effectiveness of all SDLC Processes.	mfors	Finding - Issue	12/17/2018	Configuration and Development	Several DHS stakeholders have commented that the SI Design, Development, and Implementation (DDI) approach is unclear. While stakeholders can observe SI activity and have participated in some SI activities, they do not understand how it all fits together and some activity objectives seem unclear. The SI conducted a DDI approach overview session during an initial JAR session, however not all stakeholders were present. IVV did not locate any DDI approach documentation or materials that could be referenced by stakeholders who may have missed to the overview session, by new members of the team, or by other interested parties.	Lack of stakeholder understanding and buy-in to the SI DDI approach and project activity objectives may reduce the effectiveness of JAR and JAD sessions as well as other BES project activities and decisions.	OPEN • ASI make available their DDI approach documentation/materials for stakeholders to review and/or refresh their knowledge on demand. • The Project monitor DHS product owner productivity, ability/willingness to provide effective feedback to the ASI for design and other important decisions and provide coaching as needed to assure their effectiveness in their role. COMPLETE • ASI provide an additional DDI approach overview session for stakeholders who still may be unclear on elements of the methodology, especially new product owners. - Complete 8/27/2021.	1/31/19	3	3	Med	Open	5/31/22 - DHS Product Owners have noted that some agreed upon processes (e.g., the reinstatement of formal DHS prototype approvals) were bypassed at some point and have been reinstated, which created confusion. However, overall understanding of the DDI process continues to improve as DHS leads become more adept with the SDLC and project processes. 4/29/22 - The Project continues to make efforts to mitigate the impact of relying on junior BAs to lead design sessions including moving one of their more experienced BAs from the SSP team to the CMM team. DHS product owners continue to express concerns that they don't fully understand the DDI process and question how effective they can be in making important design decisions if they do not fully understand what's being asked, the technology, and/or the DDI process. Other more experienced DHS participants appear to be stepping up efforts to take control of some sessions when they sense that DHS SMS are not understanding the process. 03/31/22 - The Project appears to be making strides in implementing and refining their new SDLC process, though SMEs have indicated the process requires a significant amount of time and participation in the Project can take away from their operational duties. DHS provided feedback to IVV that the lack of senior Business Analysts (BAs) is causing confusion in the design process and ASI lack of expertise to design the user interface may result in a cumbersome design. IVV remains concerned that some design sessions are being led by junior resources without the support of more experienced BAs. 2/28/22 - IVV remains concerned that the new SDLC process may become resource intensive for DHS SMEs, who may struggle with implementation, which could hinder productivity and lead to schedule delays. 1/31/22 - The ASI and DHS are revising their current SDLC/Design process to improve, among other things, overall effectiveness and assure important details are vetted by appropriate	1/7/19; Note. During the 01-02-18 [sic] status meeting, DHS did not decline the offer and made suggestions. To my understanding, Unisys offered to present the orientation during each JAD session. It was suggested by DHS that the pre-JAD packet be placed in the SharePoint project site. For new participants in the JADs, a separate orientation before the JAD should be held for those new participants.	9/9/21 RAP - The most recent updates on the SDLC have been added to Confluence as promised. The testing lead will continue in her role as testing lead and will also continue to play an advisory role on the design of the system as she has done throughout the project. The process changes did not change her role. 7/20/21 RAP - The ASI provides updates on the SDLC processes on published Confluence. They continue to evolve in response to lessons learned, project schedule impacts, and retrospective feedback from the development teams. We will leverage the monthly
2	Late delivery of project deliverables has caused schedule delays.	Ryan	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 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. ***DLD***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 monitor DHS product owner productivity, ability/willingness to provide effective feedback to the ASI for design and other important decisions. - monitor restart the weekly practice of reporting actions being taken for late tasks and developing 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 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	4	4	High	Open	5/31/2022 - The Project continues to refine SDLC processes to improve project schedule estimates. Although the schedule has not been approved, the ASI continues to monitor project activities that may impact the critical path and conducts meetings to address late tasks. 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 process, 2) business analyst lack of preparation and/or experience conducting the sprints, or 3) the ability of the DHS POs and SMEs to effectively execute their roles. However, the Project conducts retrospectives and is continuously taking steps to the improve the process. Additionally, the ASI monitors deliverables that may impact the critical path. 3/31/2022 - The ASI reported most design sprints were completing 4 days earlier than planned. IVV observed instances where design sprints were not completed as planned, functionality shifting to future releases or paused due to resource challenges. While a certain amount of delay would be expected for some sprints due to the new process, it remains unclear if/where delays will occur in future sprints and what the effect those will have on the critical path. The project team reported Release 7 Development was underestimated and is anticipated to delay Release 7 System Integration Testing. It is not yet know how this delay may impact the current proposed go-live dates. The Project continues to meet regularly to discuss work in progress to anticipate and mitigate further project delays. 2/28/2022 - The updated target for DHS to approve the project schedule is early March 2022. To minimize further schedule and deliverable delays, the project team implemented update meetings for each of the major BES modules where detailed tasks and deliverable due dates are reviewed and mitigation actions identified, if necessary. 1/28/2022 -		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 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