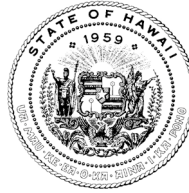**DAVID Y. IGE**
GOVERNOR

DEPT. COMM. NO. 544

DOUGLAS MURDOCK
CHIEF INFORMATION
OFFICER

OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

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January 18, 2023

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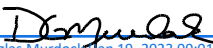Honolulu, Hawai'i 96813

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 (Jan 19, 2023 09:01 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: December 1 – 31, 2022

Submitted: ***January 17, 2023***

Overview

Executive Summary

Executive Summary

On December 22, 2022, DHS and the new ASI completed the joint BES project restart planning meetings, and the new ASI used the remainder of December to conduct internal planning activities. January 17, 2023, is the formal BES project restart kickoff date.

As the BES project has been in a replanning phase, there are few updates to the IV&V open findings in this reporting period. However, the new ASI is aware of the open IV&V findings and should be considering the recommendations in the planning phase. Other BES project observations that DHS and IV&V have had that should be taken into consideration include:

- DHS and IV&V are very interested in ensuring that the DHS project team and the new ASI have a shared vision of the BES solution and how BES will be built to ensure the process from initial application to final enrollment decisions, benefit issuance, and redetermination of eligibility are designed with all requirements being met with a high-usability score for all BES users. The "big-picture" roadmap provided by the new ASI is planned to help deliver this vision.

- A clear traceability of all contract requirements from the opening design sessions through to final testing is needed to ensure all contract requirements will be met. A comprehensive Requirements Traceability Matrix (RTM) is critical to this process.

- The new ASI needs to verify that they are in sync with DHS regarding the detail of each requirement and the detail of the work and estimates to perform the work in the new project schedule. With the kickoff date scheduled for January 17, 2023, it will be critical for DHS project management and the new ASI project management to collaborate and agree upon a detailed Design, Development, and Implementation (DDI) approach and project schedule in early January.

- DHS and the new ASI need to support this project with knowledgeable Integrated Eligibility and Enrollment (IEE) business and technology-experienced staff thoroughly engaged as the BES is designed, built, and tested.

The BES Project restart is an opportunity to build the BES application that is automated and integrated as the State of Hawaii envisioned. Taking some of these steps early in the replanning phase will support the Project's ability to align with DHS' planned outcomes.

Executive Summary

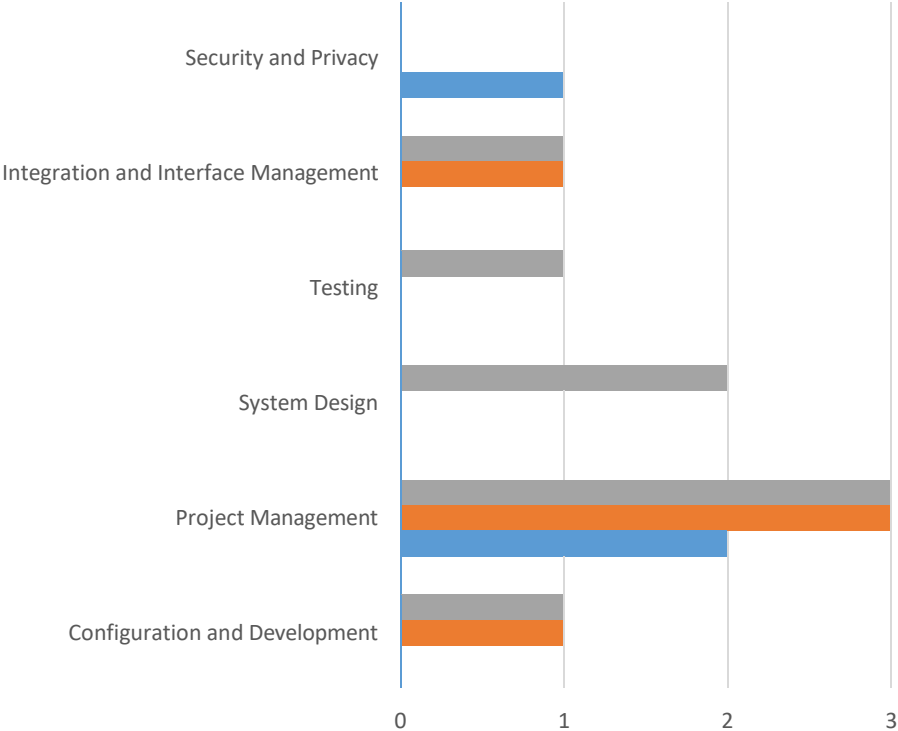| Oct	Nov	Dec	Category	IV&V Observations
H	H	H	Project Management	The new ASI continued to work on the revisions to the project management approach to include historical lessons learned. The revised project schedule will be published in early January 2023.
M	M	M	System Design	IV&V will review and assess the new ASI approach to ensure the BES design meets all requirements when the documents are made available to IV&V.
M	M	M	Configuration and Development	The new ASI is working to finalize its Design, Development, and Implementation (DDI) approach, which will be documented in the BI-6 System DDI Plan. Once published, IV&V will review to verify it meets the contract requirements and applicable best practices.
M	M	M	Integration and Interface Management	No additional interface details have been provided by the new ASI. The decision to integrate the Self-Service Portal (SSP) or Public Assistance Information System (PAIS) portal with BES remains outstanding.
M	M	M	Testing	The new ASI plans to follow Agile principles using close collaboration of the testing and design teams within sprints. Once the BES Project schedule is baselined and accepted by DHS, IV&V can review and assess to verify the required testing resources are available.
H	H	H	Security and Privacy	This has been a historically challenging area because of the integration required with the BES technical solution and with the number and significance of the BES Privacy and Security Requirements. IV&V will review the security artifacts when the documents are made available to the team.

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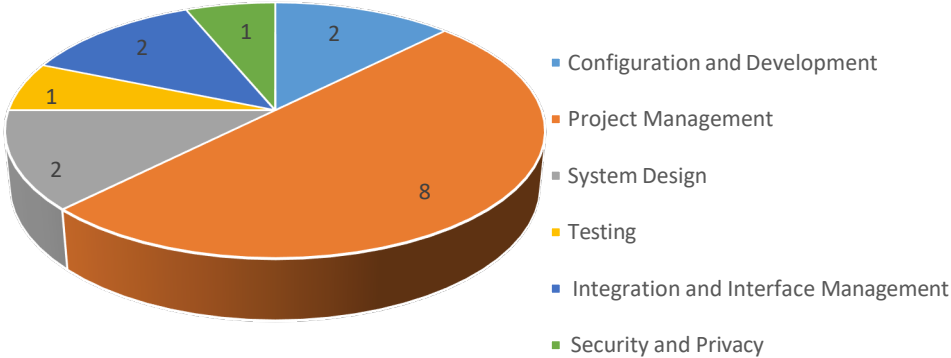
IV&V Findings and Recommendations

As of the December 2022 reporting period, PCG is tracking 16 open findings (8 risks, 8 issues) and has retired a total of 59 findings. All these findings were opened during the tenure of the prior ASI. Of the 16 open findings, 8 are related to Project Management, 2 in Integration and Interface Management, 1 to Testing, 2 to System Design, 2 to Configuration and Development, and 1 to Security and Privacy.

Open Risks & Issues

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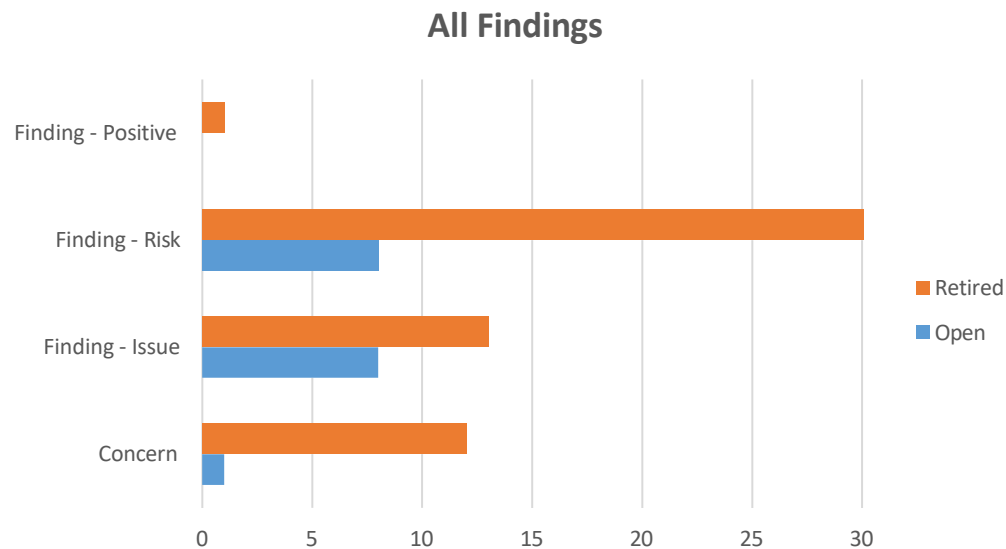- Open - Low
- Open - High

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 (positive, risks, issues, concerns) by status (open, retired).

All Findings

IV&V Findings and Recommendations

Findings Retired During the Reporting Period

#	Finding	Category
None		

IV&V Findings and Recommendations

Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
81	**Lack of skilled ASI resources may reduce project productivity and quality of the BES design and lead to schedule delays.** No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IV&V will reassess this finding and our associated recommendations once more is known.	Project Management

Recommendations	Progress
• ASI explore augmenting their team with highly capable resources that can provide expert-level software development leadership that could potentially accelerate the project and reduce the burden on DHS SMEs.	In process
• DHS works closely with the ASI in their staffing efforts and quickly, but thoroughly, vet additions to the ASI project team.	In process
• Request the ASI make efforts to ensure solutions they have provided, and key design decisions, are properly vetted by industry experts to ensure the best options are being presented to DHS.	In process

IV&V Findings and Recommendations

Findings Opened During the Reporting Period

#	Finding	Category
	None	

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
2	**Issue – Late delivery of project deliverables has caused schedule delays.** No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IV&V will reassess this finding and our associated recommendations once more is known.	M

Recommendations	Progress
• Until the revised schedule is baselined, continue monitoring and analyzing deliverables to ensure there is no to minimal impact on 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.** IV&V and some DHS stakeholders remain concerned with the lack of clarity and lack of communication around the plans for and capabilities of the BES public portal.	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

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
43	**Issue – DHS PMO project team members have transitioned off the Project, which may cause gaps in knowledge transfer and leadership on the Project**. No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IV&V will reassess this finding and our associated recommendations once more is known.	H

Recommendations	Progress
• DHS continue to work with the appropriate organizations to identify the funds necessary to fill these positions.	In process
• DHS consider other options (Contractors, State employees borrowed from other agencies) to fill these positions if there is ongoing difficulty in finding permanent hires.	In process

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
47	**Risk – The COVID-19 pandemic and the related "stay at home" order could hinder project activities and negatively impact the project schedule and budget.** No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IV&V will reassess this finding and our associated recommendations once more is known.	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
• Consider in-person meetings for critical design sessions if DHS and ASI COVID protocols allow.	Not Started

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
49	**Issue – Poor quality project deliverables may impact system design, testing artifacts, and the project schedule.** No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IV&V will reassess this finding and our associated recommendations once more is known.	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
• When the project restarts, resources be allocated to create a Quality Management Plan to help address this finding.	Not Started

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
71	**Issue – The lack of a 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 will review the relevant documents that come out of the restart planning and verify that the basis of this finding is now within the BES Project scope.	M

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

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
74	**Risk – The lack of a BES Project schedule based on accurate estimations diminishes effective planning and resource management, which could result in late deliverables, cost increases, and a late go-live.** The Project completed transition activities and is preparing for a Project restart kick-off on January 17th. The new ASI plans to present an updated schedule during the kick-off. However, without prior review from stakeholders, the proposed schedule may cause further questions and discussions which may impact restart activities creating immediate delays. IV&V added a recommendation regarding DHS/ASI collaboration on the schedule.	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
• The new ASI presents a draft schedule for DHS review/feedback in advance of the project restart kickoff.	Not Started

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.** A key resource from DHS left the project; one of the most knowledgeable and vocal DHS Product Owners. With no additional DHS resources being added to the Project design sessions could be negatively impacted by this departure.	M

Recommendations	Progress
• Allocate more time for the DHS team members to dedicate time to the Project.	In process
• Carefully plan for all project activities with reasonable hour allocations for the DHS resources and adjust dates in the BES Project schedule accordingly.	In process
• Add cushion time to the schedule for unexpected project delays.	In process
• Provide incentives for the DHS resources to help maintain the project team and possibly alleviate attrition or increase the number of volunteers to the team.	In process
• DHS keep all assigned Project resources informed of the transition progress and the timeline for when they will be asked to participate again, so resources can maintain their engagement with the Project.	Not Started

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.** No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IV&V will reassess this finding and our associated recommendations once more is known.	L

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

IV&V Findings and Recommendations

Integration and Interface Management

#	Key Findings	Criticality Rating
79	**Issue – External vendor delays in the development of the BES task management system (Current) interface have impacted the project schedule.** No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IV&V will reassess this finding and our associated recommendations once more is known.	M

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

IV&V Findings and Recommendations

Configuration and Development

#	Key Findings	Criticality Rating
70	**Risk – Insufficient configuration management could lead to development confusion and reduce the effectiveness of defect resolution.** No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IV&V will reassess this finding and our associated recommendations once more is known.	L

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

IV&V Findings and Recommendations

Configuration and Development

#	Key Findings	Criticality Rating
80	**Risk – Development delays could negatively impact the project schedule and delay go-live.** No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IV&V will reassess this finding and our associated recommendations once more is known.	M

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

IV&V Findings and Recommendations

System Design

#	Key Findings	Criticality Rating
61	**Issue – Poorly executed JAD and "design sessions" could lead to inaccurate design and rework.** The new ASI continues to develop its approach to the BES design sessions. IV&V will reassess this issue along with the below recommendations when the new ASI restarts the BES design sessions.	M

Recommendations	Progress
• The facilitator should use their expertise to drive discussions through leading questions.	In process
• BAs should come to Day one of Design Sprint fully prepared to facilitate discussion on topic of sprint, with adequate knowledge about business process and approach for design based on JAD/JAR notes and other pertinent material.	In process
• The ASI to bring User Experience (UE) designers to engage with DHS and review the currently built BES solution.	Not Started

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.** No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IV&V will reassess this finding and our associated recommendations once more is known.	M

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

IV&V Findings and Recommendations

Testing

#	Key Findings	Criticality Rating
67	**Risk - The Americans With Disabilities Act (ADA) Section 508 compliance tool has not been installed for the Project, which may cause significant rework.** No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IV&V will reassess this finding and our associated recommendations once more is known.	(M)

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

IV&V Findings and Recommendations

Security and Privacy

#	Key Findings	Criticality Rating
68	**Risk - Insufficient planning/execution of the BES Security Plan activities may lead to delays in gaining Federal Partner approval for the BES Project to begin the Pilot Phase.** There remains a significant amount of work to plan, implement, test, and approve all Security and Privacy controls prior to starting the BES Pilot. The controls should be implemented and documented in a manner that allows effective maintenance.	H

Recommendations	Progress
• The ASI continues 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 ensure that the ASI Security Lead has a depth of experience in NIST 800-53 and experience authoring implementation statements of System Security Plans (SSP).	In process
• DHS review the proposed staff resume, interview individual, and approve resource to ensure that they meet the position's contractual requirements.	Not Started

IV&V Status

IV&V Engagement Status

IV&V Engagement Area	Oct	Nov	Dec	Comments
IV&V Budget	🟢	🟢	🟢	
IV&V Schedule	🟢	🟢	🟢	
IV&V Deliverables	🟢	🟢	🟢	PCG submitted the final November IV&V Monthly Status Report.
IV&V Staffing	🟢	🟢	🟢	DHS ~~has~~ approved Mark Reynolds as an addition to the PCG IV&V team.
IV&V Scope	🟢	🟢	🟢	

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

IV&V Activities

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

- Planned IV&V activities for the January reporting period:
    - Starting – Attend BES Project Restart kickoff meeting
    - Starting – Observe BES Design and Development sessions as scheduled
    - Starting – Observe Bi-Weekly Project Status meetings
    - Starting – Observe Weekly Architecture meetings
    - Starting – Observe Weekly Security meetings
    - Starting – Observe Agile Development meetings
    - 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
No deliverables submitted in reporting period due to work stoppage		

Additional Inputs – Artifacts

Artifact Name	Artifact Date	Version
Unisys Contract Amendment 3	4/17/2020	N/A
Unisys Contract Amendment 4	5/1/2021	N/A
FNS Handbook 901	01/2020	V2.4
NIST Special Publication 800-53 Security and Privacy Controls for Information Systems and Organizations	12/20/2020	Rev.5
One RTM (Aha)	N/A	V1
BES DDI Post-transition 11-46-2022 draft	11-16-2022	N/A
BES 2023 New Way Forward	11-29-2022	N/A
BES 2023 Implementation, Appendix – Plan Approach Details	11/29/2022	N/A
BES 2023 Implementation Planning – Confluence page	N/A	N/A

Additional Inputs

Meetings and/or Sessions Attended/Observed:

1. Weekly Platform Status Meeting – 12/6/2022, 12/13/2022
2. IV&V Team Meeting – 12/1/2022, 12/5/2022, 12/8/2022, 12/12/2022, 12/19/2022
3. HI DHS BES November Draft IV&V Report Review – 12/12/2022
4. IV&V November Findings Roast – 12/6/2022
5. Bi-Weekly DHS and IV&V Touch Base Meeting – 12/22/2022
6. Weekly BES Infrastructure meeting – 12/9/2022, 12/23/2022
7. DHS/IVV Check-in – 12/2/2022, 12/7/2022
8. BES 2023 Implementation Planning - SSP/PAIS Session – 12/8/2022, 12/9/2022, 12/12/2022, 12/13/2022, 12/14/2022, 12/15/2022, 12/20/2022, 12/22/2022
9. BES 2023 Implementation Planning - Project Management - 12/8/2022, 12/12/2022, 12/14/2022, 12/19/2022
10. BES 2023 Implementation Planning - Functional Design – 12/8/2022, 12/13/2022, 12/15/2022, 12/20/2022, 12/21/2022
11. BES 2023 Implementation Planning - Automation testing framework Overview and integrations – 12/8/2022
12. BES 2023 Implementation Planning - Requirement Management – 12/9/2022, 12/12/2022, 12/14/2022, 12/19/2022, 12/21/2022
13. BES 2023 Implementation Planning - Manual Test Team Approach – 12/12/2022
14. Weekly BES Infrastructure Meeting – 12/9/2022

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

Ending Slide

Solutions that Matter

ID	Title	Reporter	Finding Type	Identified Date	Category	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Status Update	Client Comments	Vendor Comments
81	Lack of skilled ASI resources may reduce project productivity and quality of the BES design and lead to schedule delays.	Michael Fors	Concern	9/8/2022	Project Management	DHS stakeholders and IVV have observed that working session productivity has been hindered by some ASI team members who may lack sufficient software development and analysis expertise, knowledge, experience, skill levels, and/or capabilities to assure software quality and overall productivity to meet project milestones. ASI team members who may have sufficient capabilities appear to be working at capacity and often appear overwhelmed with maintaining quality and compensating for less experienced or less skilled team members. Further, the ASI recently announced the departure of some of their most capable and experienced resources who provided important guidance and leadership to their team.	A primary factor of project success is establishing a skilled, experienced, productive, and high-functioning team. If the ASI is not able to maintain this type of team, project schedule and other project risks could increase. The ASI recently determined that in order to meet the current projected go-live date, they would need to add approximately 50 additional resources to their team. With the recent loss of some of the ASIs most capable and experienced resources, project delays could continue, productivity could be hindered, and software design quality could be reduced. Further, the lack of sufficiently capable ASI resources could weigh heavily on already constrained DHS SMEs as they attempt to compensate and expend additional efforts to assure software design quality and ensure that project milestones are met. If the ASI is unable to quickly replace these highly capable individuals, these risks could progressively increase and project morale could be negatively impacted. If software design quality cannot be effectively assured, it could lead to reduced user buy-in and unexpected rework that could impact the overall project budget.	• ASI explore augmenting their team with highly capable resources that can provide expert level software development leadership that could potentially accelerate the project and reduce the burden on DHS SMEs. • DHS works closely with the ASI in their staffing efforts and quickly, but thoroughly, vet additions to the ASI project team. • Request the ASI make efforts to ensure solutions they have provided, and key design decisions, are properly vetted by industry experts to ensure the best options are being presented to DHS.	ASAP	3	3 Med		Open	12/31/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - No material update in the reporting period as the work stoppage continues and the new ASI conducts restart planning. 10/31/22 - This finding was raised in relation to the prime contractor and subcontractor staff. No work has been performed regarding this preliminary concern due to the work stoppage and ongoing transition to the new ASI. IVV will reassess this finding once the BES project restarts. 10/4/22 - No material update in the reporting period.		
80	Development delays could negatively impact the project schedule and delay go-live.	mfors	Finding - Ris	6/30/2022	Configuration and Development	ASI reported development activities have been slowed as they have been unable to achieve and/or maintain their expected development velocity. The ASI is working to produce a root cause analysis and remediation plan to address these delays, however, both have been delayed. Previously, the development team was challenged with accurately estimating development task level of effort (i.e., story points) in the past and the ASI has been challenged with producing a project schedule that accurately reflects realistic timelines (see Finding #74). The ASI continues to be challenged with finding qualified resources in a timely manner.	If the ASI is unable to achieve a velocity that enables them to meet planned milestones, schedule delays may lead to a delayed system go-live date. Failure to achieve a level of accuracy in estimating development tasks could lead to a project schedule that is flawed and unrealistic. DHS has indicated, and IVV agrees, that some of these delays could be due to some ASI BAs lacking the expertise required to create system designs and specifications that developers could consume without having to get extensive clarification from the ASI BA/SA team. DHS and IVV observed instances where ASI BAs/SAs have presented less than optimal designs and left it to DHS (who may lack software or UI design expertise) to improve, which has contributed to unproductive design sessions (see Finding #61). It remains unclear if scope creep has contributed to these delays.	OPEN • Complete and execute remediation plan based on the result of a Root Cause Analysis (RCA). • ASI consider moving/adding/replacing project team resources strategically to effectively increase velocity. Note that adding additional junior resources may not be as effective as staffing additional expert-level development, analysis, and other resources. • Request the ASI effectively track and regularly provide DHS (potentially via the weekly DDI status meeting) with an accurate velocity (e.g., story points per day/week/month) and assure that the current velocity is accurately and consistently reflected in the project schedule.	Immediate	3	3 Med		Open	12/31/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - No material update in the reporting period as the work stoppage continues and the new ASI conducts restart planning. 10/31/22 - No work has been performed regarding this finding due to the work stoppage and ongoing transition to the new ASI. IVV will reassess our recommendations for this finding once more is known. 09/30/22 - The ASI has announced the departure of key resources that have provided leadership and design quality assurance to the project, which could further hinder development productivity. With the recent work stoppage, it remains unclear if factors that created development delays will be fully addressed to mitigate this risk. 08/30/22 - The ASI continues to onboard additional development resources, stating they added 2 on-shore and 2 off-shore developers to their team. Though an updated schedule has yet to be completed by the ASI, they estimate they will need approximately 50 additional resources to assure adequate velocity and cadence to complete the project in the proposed timeframe. However, until a revised schedule is available the actual number of additional resources needed is not known. The ASI is delaying full recruitment for these positions until the project schedule is approved but have not submitted the revised schedule to DHS. 07/27/22 - The ASI has a severe shortage of development resources and is recruiting to fill the open positions, but the current job market presents challenges. The ASI plans to update the schedule to account for the current lack of resources and intends to submit a re-baselined schedule on 8/12/22. The ASI is currently assessing the level of effort to address changes to Federal security control requirements (revision 5 of NIST); which may increase development efforts. The ASI recently hired 2 additional developers		
79	External vendor delays in the development of the BES task management system (Current) interface have impacted the project schedule.	Al Pangelinan	Finding - Iss	6/3/2022	Integration and Interface Management	The BES Project expected the CIA developed Current interface (aka., webhook) to be completed by 04/07/2022. CIA reported that the webhook development work would be done by 05/27/2022. As of 05/25/2022, the ASI has not received any status from CIA. The webhook is currently holding up the design of the CF44 – Manage CIA Data use case for Release 0.8.	Current (previously known as ePathos) is a task management system developed by the Change and Innovation Agency (CIA). The Department of Human Services (DHS) uses the Current system to manage and create case related tasks. The Benefits Eligibility Solution (BES) will interface with the Current system to manage tasks. The BES system will create tasks and will send them to Current. BES does not have the capabilities to manage or close the tasks. Eligibility Workers will claim tasks, and the Supervisors will manage tasks from within the Current system. The webhook is being designed by CIA that will provide task details for cases that have been tagged as "No Contact". This is a requirement to meet the design of the CF44 – Manage CIA Data use case. The ASI has stated that webhook is required before some critical path development tasks can commence.	1. Ensure that there is an agreement between DHS and CIA to address roles/responsibilities and outcomes. Not applicable and completed. 2. Schedule recurring meetings with CIA to ensure consistent communication between DHS, the ASI, IVV, and CIA. Completed. 3. The ASI provide test results from the task management integration to ensure that the interface works.	Q3	5	1 Med		Open	12/31/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - No material update in the reporting period as the work stoppage continues and the new ASI conducts restart planning. 10/31/22 - No work has been performed regarding this finding due to the work stoppage and ongoing transition to the new ASI. IVV will reassess our recommendations for this finding once more is known. 09/30/22 - No material update in the reporting period. 08/30/22 - No material update in the reporting period. 08/01/2022 - DHS has decided not to establish an agreement with CIA (the task management vendor) because DHS currently has a subscription that includes the BES requirements. In addition, DHS and the ASI have established biweekly meetings with the task management vendor. 06/30/2022 - The task management system vendor provided details regarding the webhook at a recent meeting with DHS, allowing for related BES development to commence. DHS is determining the type of agreement required with this interface vendor. Based upon receiving the needed information, IVV is reducing the criticality rating to 'Medium'. 06/02/2022 - Issue created.		
76	Volunteer DHS resources leaving the Project may lead to schedule delays, lowered morale, and burnout.	Brad Molina	Finding - Ris	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. This is a risk to the Project that the remaining DHS resources will be overallocated, raising burnout, and creating a cycle of more DHS resources leaving the Project. If additional DHS staff are provided, their training will add to the workloads of current DHS project resources.	• Consider adding DHS resources as needed. 6/30/2022 Complete • Allocate more time for the DHS team members to dedicate time to the Project. • Carefully plan for all project activities with reasonable hour allocations for the DHS resources and adjust dates in the BES Project schedule accordingly. • Add cushion time to the schedule for unexpected project delays. • Provide incentives for the DHS resources to help maintain the project team and possibly alleviate attrition or increase the number of volunteers to the team. • DHS keep all assigned Project resources informed of the transition progress and the timeline for when they will be asked to participate again, so resources can maintain their engagement with the Project.	Immediate	4	2 Med		Open	12/31/2022 - A key resource from DHS left the project; one of the most knowledgeable and vocal DHS Product Owners. With no additional DHS resources being added to the Project design sessions could be negatively impacted by this departure. 11/30/2022 - No material update in the reporting period as the work stoppage continues and the new ASI conducts restart planning. 10/31/2022 - DHS BES project team members are actively participating in the transition to the new ASI. They identify and communication possible gaps and are highly motivated to ensure the start-up with the new ASI is successful. DHS BES project team members have expressed a need to fully understand the future direction of the BES project and how known issues will be corrected. IV&V will monitor the project restart planning and the DHS BES project team members participation. 9/30/2022 - With the BES Project work stoppage, some of the DHS resources assigned to the project are helping with transition work. The work stoppage is a significant event for the project team and the impact to overall morale (positive or negative) is uncertain. 8/30/2022 - No material update for this reporting period. . IVV continue to monitor. 7/27/2022 - No material update for this reporting period. 7/6/2022 - In June, DHS added the following five staff to the BES Project: - An Interface Product Owner - A CMM Product Owner - Two SME resources joined the team to support the Returned Mail Use Cases, - One SME to support the Reporting function. DHS stated they plan on adjusting staff as needed and pro-actively review the project schedule to identify future staffing needs. IVV will evaluate the impact of these staff additions to determine if the criticality rating can be lowered. 5/31/2022 - IVV updated this finding from a preliminary concern to a risk in this reporting period. The draft schedule plans for multiple releases in the testing phase which may stretch the DHS test team to the point where they request to return to their operations positions. DHS is		
74	The lack of a BES Project schedule based on accurate estimations diminishes effective planning and resource management, which could result in late deliverables, cost increases, and a late go-live.	Ryan Tan	Finding - Iss	11/29/2021	Project Management	DHS and the ASI have tried multiple times to rework the schedule with results that have not yielded improvement. Concerns with the structure, estimating practices, and ability to manage to the schedule persist. The use of multiple tools to track resources obfuscate resource management. Previous IV&V findings focused on specific schedule components such as resource management and critical path analysis, all of which were addressed and closed.	If estimates for project schedule activities are not accurate, this can lead to constant schedule changes, resources not being available when needed, rushed activities, and general frustration which can lead to schedule delays, low quality output, scope changes, and budget issues.	• Using the available tools, review the current estimates to complete each activity compared to past actual hours • Update as necessary and provide the DHS/ASI Project Managers with reports and data that accurately reflect the DHS/ASI resource needs along with over/under allocations of staff for the duration of the Project • Discuss, validate and address additional concerns within the project processes that may cause the project delays other than inaccurate estimates such as over reliance on POs, slow design sprints, and cadence of development teams • DHS and the ASI agree to a revised schedule against which project deliverables can be managed.	Immediate	4	4 High		Open	11/30/2022 - The Project is reviewing and revising the Bi-5 Project Schedule to reflect the new implementation approach, and to align with updated project deadlines, resources, and scope. An updated Project Schedule is expected for the Project restart kick-off in early January 2023. 10/31/2022 - A project schedule documenting post-transition activities and project execution activities of the new ASI has not been developed. Without a realistic project schedule based on accurate estimates, it is difficult for the Project to plan future activities, estimate staffing needs, and uncover possible gaps in knowledge transfer. 9/30/2022 - The ASI did not deliver a revised BES Project Schedule prior to DHS issuing the work stoppage on September 9, 2022. Regardless of the BES move forward strategy, a schedule that is based on estimates provided by staff performing the work is critical to ensure the schedule is realistic. 8/31/2022 - The ASI indicated that substantial changes and improvements were made to the schedule but did not deliver the revised draft to DHS by the August 12th deadline nor has the ASI provided DHS with a new target date for delivery. Without a project schedule, it is difficult for the Project to plan future activities such as hiring required resources to staff the Project. 7/29/2022 The ASI delivered a draft schedule that did not meet DHS's expectations as it was developed with inaccurate estimates. In their CAP, the ASI plans to deliver a new draft of the schedule by August 12, 2022. Despite many late activities, the ASI originally planned to update the schedule without impacting the existing go-live and pilot dates. After further analysis, the ASI anticipates updates to the existing go-live and pilot dates. Since the Project has not accurately estimated/planned resources, further delays and disruptions to the BES Project may occur. 6/30/2022 DHS has not approved the May 18, 2022 draft project schedule and the project continues to work without an approved version. DHS stated the draft schedule contained late tasks and		

ID	Title	Reporter	Finding Type	Identified Date	Category	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Status Update	Client Comments	Vendor Comments
73	The planned BES infrastructure is complex which could be difficult to implement and lead to schedule/cost impacts.	mfors	Finding - Ris	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 risks 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 change that led to failure in another component (i.e., Nexus). Google Cloud is generally viewed as a less mature product offering, compared to their rivals (Amazon Web Services, Microsoft Azure). IV&V remains concerned that this could lead to failures at critical points in the project (including post-go live production failures) that could be difficult to resolve and lead to project disruption. If DHS intends to eventually reduce M&O outsourcing costs turning over M&O tasks to State employees, they could face challenges supporting tools they may not be familiar with in a complex infrastructure environment.	• ASI clearly communicate the potential costs and schedule impacts to implement and maintain the planned infrastructure. The Architecture process should include steps to provide a detailed impact of DHS architectural decisions to include the integration activities, support required, and maintenance and operations impacts. • DHS work with the ASI to assess the potential challenges of maintaining a complex environment and consider scaled back options that could reduce this risk and reduce long-term infrastructure costs. • ASI develop a process to closely monitor cloud 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. • Request the ASI development team identify infrastructure components and techniques that are new to them and take action to assure potential integration problems do not lead to unexpected delays. For example, allot time in the schedule to conduct proof of concepts to assure infrastructure components work as expected.	Next several month	3	3	Med	Open	12/31/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - No material update in the reporting period as the work stoppage continues and the new ASI conducts restart planning. 10/31/2022 - The previous ASI was largely responsible for the infrastructure design and build out, these responsibilities are now transitioned to the new ASI. The previous ASI is performing knowledge transfer (KT) to the new ASI; however, IVV is concerned that KT will suffer given the complexity of the infrastructure and that some of the new ASI resources appear to lack significant experience with some of the tools and techniques used. IVV will reassess our recommendations for this finding once more is known. 9/30/2022 - The ASI announced the departure of key infrastructure resources who have provided leadership to the infrastructure efforts, which could exacerbate this risk. With the recent work stoppage, it is uncertain how this risk will be mitigated going forward. 08/30/22 - The ASI intends to engage two 3rd-party vendors to assist with the production environment build (once the GCP change order is approved), which could increase their velocity. The inclusion of these vendors could also mitigate the risk of maintaining a complex infrastructure if these vendors can provide experts who have significant experience with cloud infrastructure and related tools. 07/31/22 - The newly assigned ASI architects continue to ramp up to meet productivity expectations. The ASI recently reinstituted weekly architecture meetings with DHS and other infrastructure stakeholders. The ASI is analyzing the impact of the revised federal security controls on the project. System changes resulting from the security controls update may further complicate the infrastructure and/or add unexpected work to complete the infrastructure buildout. The ASI reported they are experiencing turnover of		
71	The lack of a 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 - Iss	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.	OPEN - 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. - DHS and the ASI Subcontractor agree to a firm delivery date for when DHS will receive the GCP CR. COMPLETE - DHS and the ASI agree to a firm delivery date for when DHS will receive the GCP CR. 12/16/2021 Complete	ASAP	4	2	Med	Open	11/30/2022 - No material update in the reporting period as the work stoppage continues and the new ASI conducts restart planning. 10/31/2022 - DHS will now work with the new ASI to complete the GCP change request. IVV waits to see the details included in the change request, and whether our recommendations are addressed. 9/30/2022 - The DHS transition of the BES Project DDI activities will impact the GCP change request. IVV will update our recommendations for this finding once more is known. 8/31/2022 - The ASI submitted a detailed project impact analysis to DHS and provided a demonstration of the current environment to DHS. The ASI is planning to provide DHS a GCP Best and Final Offer (BAFO) for review. 7/30/2022 - The ASI and DHS have a general agreement to the scope of the GCP CR. The ASI is preparing a project impact analysis and will submit a formal document to DHS in August 2022. IVV concerns are increasing as this CR is not finalized and is focused on the impact to the Project if not completed. Uncertainty created by this open scope issue has already impacted security planning. 6/30/2022 - IVV remains concerned that the production environment for BES is unknown along with the roles and responsibilities of the ASI, ESI and DHS. There are many possible impacts to the project ranging from contract changes to procurement and integration activities. All these take time to complete yet there are no tasks and activities in the schedule to complete this work. 5/31/2022 - IVV has increased concerns about the slow progress and lack of detail regarding the GCP change request, as this has been in discussion since July/August 2020. The ASI has stated that their work on tasks within the scope of the CR is 'at risk' and may need to stop, pending the CR approval. Based on the ASI Security Lead's report that the lack of an approved GCP decision is delaying security work, this risk has materialized to an issue and the criticality rating is escalated to High. 4/30/2022 - The ASI developed a Rough Order of		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 be to the on-premise environment. However, we did acknowledge that deployment may move to the Cloud. The final decision to move to GCP for production was made in July 2020. The costs for managing the UAT, Production, and Disaster Recovery environments were not included in the SOAP agreement nor
70	Insufficient configuration management could lead to development confusion and reduce the effectiveness of defect resolution	Michael Fors	Finding - Ris	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 configured and works correctly. The BES solution includes tools that may provide a level of automation for Configuration Management that may reduce errors and should make it easy to track configuration items or settings they will track. The Project work to clarify/solidify plans for the potential use of configuration management tools and DHS agree to the full list of items that are included in the configuration plan along with the details regarding the management of the configuration items, reporting and audit features.	OPEN • ASI adhere to plans for configuration management as documented in BI-6 DDI Plan, Section 5.2 and clarify details and/or any changes with DHS. • ASI validate plans for configuration management with DHS and agree on a meaningful set of configuration items or settings they will track. • Project work to clarify/solidify plans for the potential use of configuration management tools and DHS work to fund and procure a CM tool, as required, to avoid any negative impacts to the project. COMPLETED • Identify the DHS POC for the Configuration Management Activities that would provide oversight of configuration management activities and assure defined CM steps and plans are being followed, are effective, and are achieving DHS objectives for CM. 7/31/2022	ASAP	2	2	Low	Open	12/31/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - No material update in the reporting period as the work stoppage continues and the new ASI conducts restart planning. 10/31/22 - No work has been performed regarding this finding due to the work stoppage and ongoing transition to the new ASI. IVV will reassess our recommendations for this finding once more is known. 09/29/22 - The ASI announced the departure of key resources including their lead CM strategist, which could exacerbate this risk. With the recent work stoppage and planned reassignment, IVV is not aware of the plans to mitigate this risk. 08/30/22 - The ASI updated the Configuration Management Plan (CMP) with additional configuration management details. 07/27/22 - DHS has identified technical and functional primary points of contacts for ASI to work with for configuration management efforts. IVV remains concerned that some configuration management (CM) details have yet to be finalized and the lack of clarity around the CM database (CMDB) tools. For example, it remains unclear what CMDB tool will be used if Service Now is not part of the GCP change request. 06/30/22 - The Project previously stated its intention to utilize ServiceNow (SN) for Configuration Management (CM), however, it remains unclear if progress has been made on 1) finalizing this decision, 2) how it will be used, and 3) the status of funding for purchase. Further, it remains unclear whether DHS will utilize their existing SN installation or create a separate instance and who will be responsible for defining the service catalog and SN/CM processes. Funding for SN is currently dependent on the approval and funding of the GCP change request; it remains unclear if contingencies have been detailed or documented if GCP is not approved. IVV has elevated this 'Concern' to a 'Risk'. 05/31/22 - No material update in		9/9/2021 - RAP: We look forward to receiving specific inquiries from the IV&V team on configuration management and having conversations. We do acknowledge that the plan likely needs to be updated to reflect the processes in place on the project for configuration management.
68	Insufficient planning/execution of the BES Security Plan activities may lead to delays in gaining Federal Partner approval for the BES Project to begin the Pilot Phase.	Dustin Heath	Finding - Ris	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, 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 continues to develop the BI-13 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 ensure that the ASI Security Lead has a depth of experience in NIST 800-53 and experience authoring implementation statements of System Security Plans (SSP). - DHS review the proposed staff resume, interview individual, and assess resource to ensure that they meet the position's contractual requirements. 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 5/31/2022 - ASI have a security SME attend the weekly security planning meetings and workshops. COMPLETE 7/31/2022 - ASI add a Security Architect to the Project Team ASAP with the Security Plan activities. COMPLETE 11/30/2022	ASAP	4	5	High	Open	11/30/2022 - The new ASI has named its Security Lead. As one of the five key project resources, IVV recommends that DHS review and approve this proposed staff to ensure that they meet the position's contractual requirements. 10/31/2022 - With the transition to the new ASI, the key position of Security Lead will be filled by a new resource. As of the reporting period end, this position remains unfilled. As the new ASI assumes the responsibility for the Project security and privacy tasks it is appropriate to revisit the IVV recommendations and the tools used to document and track security controls. 09/29/2022 - Since only one meeting was held between the ASI and DHS Security teams prior to the work stoppage, IVV has no material updates to report this month. The planned reassignment of the BES DDI work should consider the expertise needed for the vendor Security Lead and team. 08/31/2022 – IVV recommends that Security SMEs leading security and privacy-focused workshops and technical sessions have a depth of experience in NIST 800-53 and with experience authoring implementation statements of System Security Plans (SSP). The ASI will be changing the ASI security lead in September 2022. 07/31/2022 – The ASI filled the Security SME position this month and their prior NIST Security Standard experience should benefit the BES project. The ASI does not have a Security Architect on this project which may lead to an incomplete security and privacy design. It is IVV's understanding that the addition of the Security Architect is included in the GCP change request (CR) and will not be filled until the CR is approved. An agreement has been reached for the immediate term to use Aha and Confluence to develop and collaborate on System Security Plan (SSP) controls. However, an electronic Governance, Risk, and Compliance system (eGRC) is under consideration at DHS. 6/28/2022 – The ASI hired a Security SME who will be working with DHS on security governance, risk, and compliance activities. Weekly security meetings began again in May but		9/9/2021 - RAP: The decision to move to GCP for deployment has driven the need for a complete rewrite of the security plan per DHS. The ASI is in the process of planning the effort to make these updates. The effort required to complete this work will be included in either the GCP change request or a new change request. We look forward to additional discussions with IV&V and DHS.

ID	Title	Reporter	Finding Type	Identified Date	Category	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Status Update	Client Comments	Vendor Comments
67	The Americans With Disabilities Act (ADA) Section 508 compliance tool has not been installed for the Project, which may cause significant rework.	Ryan Tan	Finding - Ris	7/12/2021	Testing	While R0.3 and R0.4 reported that Section 508 compliance had been successfully completed the ASI confirmed that there is currently no working tool installed and that Section 508 compliance testing has not been performed. This risk has been discussed with the ASI over the past several months, but there have been evidence of results to-date. The ASI did state that they are coding to some of the ADA requirements and are using a desk-top tool for ADA compliance as an interim solution. IVV has not received any data to demonstrate the desk-top tool results nor if it provides coverage for all ADA compliance items.	There is a contractual obligation and requirement for BES to be ADA compliant to obtain State and Federal funds for the development of the BES. The ADA Section 508 intent is to make electronic and information technology accessible to people with disabilities (e.g., color blindness, vision and hearing disabilities), in a way that is comparable to the access available to others. Part of the system acceptance criteria for BES is to meet "all applicable State and federal policies, laws, regulations, and Standards, including without limitation the Electronic and Information Technology Accessibility Standards associated with Section 508 of the Rehabilitation Act, which was verified in the ASI proposed Technical Requirements Approach that states "The system complies with DHS branding standards as defined by DHS and adheres to W3C level 2 accessibility guidelines, sub-parts of Section 508 of the Americans with Disabilities Act (ADA), nondiscrimination safeguards in 45 CFR 85.". If the Hawaii guidelines (https://www.hawaii.edu/access/uh-guidelines-for-accessibility/), FNS Guidelines from the 901 Handbook, and contractual obligations to adhere to the Section 508 compliance guidelines (https://section508.gov/) there may be a significant amount of rework to the solution.	1/31/2022 - The following recommendations will be evaluated for this finding. - The ADA tool meets contractual and project requirements. - The ASI communicates a plan for ADA test execution. - The ASI communicates how the tool will be used to report compliance and non-compliance and how non-compliance will be addressed/corrected. - The ASI communicates how and when DHS/IVV will be provided the reports from the ADA tool execution and how to interpret the results. Superseded 8/30/2021 - 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	12/31/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - No material update in the reporting period as the work stoppage continues and the new ASI conducts restart planning. 10/31/2022 - No work has been performed regarding this finding due to the work stoppage and ongoing transition to the new ASI. IVV will reassess our recommendations for this finding once more is known. 9/30/2022 - DHS issued a work stoppage, and no progress was made to move forward with purchasing the ASI recommended ADA compliance tool. 8/30/2022 - No change in status. Waiting on DHS acceptance/approval to move forward with purchase, installation, configuration, and implementation of the ASI recommended ADA compliance tool. 7/27/2022 - The ASI successfully completed the ADA compliance tool proof of concept and provided reports to DHS for their review and approval. The final steps remaining would be the purchase, installation, and implementation of the tool. 6/29/2022 - The ADA compliance tool is still in the trial phase and a compliance report will be run once the initial testing has been completed. The ASI is expected to provide results of the testing to DHS when the trial phase is finished, and the report generated. 5/31/2022 - The ASI has identified an accessibility compliance tool that will meet the needs of the Project and DHS has approved opening a firewall to facilitate a demonstration of that tool. The ASI completed a Proof of Concept for the tool and now needs to 1) receive DHS approval to use the tool, 2) purchase the tool, 3) configure the system to accommodate the tool, and 4) institute the tool into the delivery pipeline. 4/26/2022 - The ASI is evaluating four ADA testing tools for consideration due to high pricing for the tool selected in March. This tool was demonstrated to the ASI and appeared to provide the required reporting		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 N&V has not contacted the development lead to have further discussions on this topic.
63	The lack of early planning and coordination with interface partners may result in schedule delays.	Michael Fors	Finding - Ris	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. 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	12/31/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducts restart planning. 10/31/22 - No work has been performed regarding this finding due to the work stoppage and ongoing transition to the new ASI. IVV will reassess our recommendations for this finding once more is known. 09/29/22 - No material update in the reporting period. 08/26/2022 - The statuses of the three remaining required agreements (DAGS, DLIR, HYCF) have not changed. 08/01/2022 - DHS executed the DPS agreement (MOA) on 07/20/2022. The statuses of the three remaining required agreements are as follows. The DAGS agreement is moving forward with design work. DHS reviewed the DLIR MOA and resubmitted it to DLIR. The latest draft of the HYCF was sent to the DHS Directors' office with feedback from BESSD and MQD. 06/30/2022 - There are 4 agreements outstanding (DAGS, DLIR, DPS, and HYCF). DHS plans to discuss the agreement at the next meeting with DAGS, which is tentatively scheduled for 07/06/2022. DHS is currently reviewing the DLIR, DPS, and HYCF agreements. 05/31/2022 - There were no changes to the interface communication plans in this reporting period. There are 5 agreements outstanding (DLIR, DPS, HYCF, DAGS, and CYRCA). DPS, HYCF, and DLIR have all been drafted and are going through reviews with DHS and the interested parties. DAGS has not been drafted by DHS; DHS is in discussions with the Department of Tax for an interface that would bypass DAGS. The CYRCA interface has been escalated within DHS as the business requirements CYRCA meets are being evaluated by DHS executive management. IVVa has opened a new issue #79 related to vendor development delays for the task management software. 04/28/2022 -		7/20/21 RAP - The N&V team requests that the N&V reassess the severity of this risk in light of the following reasons: a) the ATC schedule extension has made the urgency for tackling these tasks less than it was before that started lessening the schedule risk, b) the increase from Medium to High in May was based on a misunderstanding of the current state of the MOA's and contact metrics, c) substantial progress has made against each of the In Progress recommendations, and it continues to trend in the right direction. In regards to
61	Poorly executed JAD and design sessions could lead to inaccurate design and rework.	Brad Molina	Finding - Iss	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.	OPEN - The facilitator should use their expertise to drive discussions through leading questions. - 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. - The ASI to bring User Experience (UE) designers to engage with DHS and review the currently built BES solution. Closed - JAD and design sessions should be lead by experienced senior BAs with goals, objectives and results communicated to all participants. (additional Senior BA being added, rest of recommendation being met - Closed 4/30/2022) - The DHS and ASI product owners should actively participate to ensure the system meets the requirements, designed taking advantage of new technology and aligns to the 'to be' business process. (Closed 4/30/2022) - The ASI should back-track significant differences in design direction to determine the root cause to identify these items as early in the SDLC as possible. COMPLETE - The Product Owners should have more direct interaction with the development team, proactively seeking collaboration. 10/5/21 Complete - The Functional Design Document process, to include the Design Sprint concept, should be clearly defined and shared with all project team members. (Closed, 1/31/2022) - Invite IVV to all future design sessions and design sprints to allow IVV to observe and assess the effectiveness of the revised design processes. (Closed, 1/31/2022) - ASI and DHS should work together to vet the in-progress design with all SMEs for the area of focus. (being met by new design sprint process, closed 2/28/2022) - ASI staff all design sprint meetings with additional support staff to ensure the meetings are adequately documented and ASI Business Analyst are not running the meeting alone. Complete 7/31/2022	ASAP	2		5 Med	Open	12/31/2022 - The ASI continues to develop its approach to the BES design sessions. IVV will assess this issue along with the below recommendations when the new ASI restarts the BES design sessions. 11/30/2022 - The new ASI is revising the approach to the BES design sessions to improve efficiency and align with Agile methodology. IVV will assess this issue along with the below recommendations when the new ASI restarts the BES design sessions. 10/31/2022 - No work has been performed regarding this finding due to the work stoppage and ongoing transition to the new ASI. IVV will reassess our recommendations for this finding once more is known. 9/30/2022 - DHS Product owners and SMEs have raised concerns about a lack of a cohesive design and a user experience that is less than satisfying. DHS users are citing examples of not being able to achieve desired tasks or achieve tasks timely. 8/31/2022 - The ASI's addition of senior BAs to the design sessions has resulted in improvement. The Senior BAs offer guidance to ensure the project team remains focused on the design. Unfortunately, one of the Senior BAs has left the project so it is unknown if this practice will continue for all BES design sessions. 7/31/2022 - Although the ASI has implemented preparatory sessions for their Business Analysts (BAs) prior to design Sprint Day 1, IVV continues to observe occurrences of BAs not being fully prepared for the initial session. DHS has also raised concerns that the ASI support admins are not always assigned to meetings, leaving the BA solely responsible to lead discussions and capture notes, update artifacts, and capture action items. DHS requested the ASI to address these concerns going forward. 6/30/2022 - The ASI continues to revise the Design Sprint process by engaging the DHS SMEs and ASI systems analysts earlier in the process and conducting prep sessions with the ASI Business Analysts (BA) prior to each Sprint. These pre-sprint sessions with BAs are starting to address the		9/9/21 RAP - The N&V does participate in many facets of the design process including screen mock-up reviews, backlog grooming sessions, and Sprint demo's. Product owner discussions are meant to have limited participation. The team is concerned about the participation of the IV&V for two main reasons: 1) IV&V does not always stay silent in discussions on design despite assurances from the IV&V that it is not their role, and 2) IV&V participation typically drives what are meant to be informal processes to more
49	Poor quality project deliverables may impact system design, testing artifacts, and the project schedule.	Brad Molina	Finding - Iss	4/16/2020	Project Management	In April, four BU-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.	OPEN - ASI reviews its Quality Management Plan to ensure that the Project is working within the guidelines of this Plan document. In particular, the ASI should evaluate and consider if it is in alignment with Section 3.1.2 Measure Project Quality, which states, ASI measures process and product quality by 1) selecting BES implementation process and product attributes to measure; 2) selecting component activities to measure; 3) defining value scales for each component activity; 4) recording observed activity values; and 5) combining the recorded attribute values into a single number called a process quality index. IVV has not seen evidence indicating the ASI is utilizing metrics to measure its process and product quality. - When the project restarts, resources be allocated to create a Quality Management Plan to help address this finding. CLOSED - IVV recommends that a facilitated root cause analysis be performed by the ASI with DHS and IVV in attendance. Quality issues are rarely generated by a single entity in a project, so there could potentially be multiple causes or root causes of this current condition. Once the root cause(s) are identified, IVV recommends immediate action be employed to resolve quality concerns on in-process deliverables prior to submission of subsequent deliverables. Complete 7/30/2021 - 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	12/31/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - For future deliverables, the Project plans to simplify content and the new ASI will revise and submit new Deliverable Expectation Documents (DEDs). IVV recommends that the new ASI address the open recommendation for the creation of a quality management plan. 10/31/2022 - No work has been performed regarding this finding due to the work stoppage and ongoing transition to the new ASI. IVV will reassess our recommendations for this finding once more is known. 9/30/2022 - No work has been performed regarding this finding due to work stoppage. 8/31/2022 - No material update for this reporting period. 7/31/2022 - The ASI plans to provide resources to develop and report on quality metrics, which will be addressed in the CAP. 6/30/2022 - No significant change to the status of this finding although ASI has assigned a resource to research a solution for creating quality metrics. 5/31/2022 - The revised DDI process, in particular the design sprints, is bringing more focus and attention on the lower number of comments in deliverable reviews. IVV will validate this metric is fully documented in the Quality Management Plan, when published by the ASI. 4/30/2022 - No material update for this reporting period as IVV awaits updates to the Quality Management Plan. 3/30/2022 - When Release 6 final test results are published, IVV will re-evaluate this finding. 2/28/2022 - IVV continues to review the Release 0.6 test results and available metrics. The initial results show a positive trend, which is encouraging since Release 0.6 has the most complex functionality developed and tested by the project team to date. If the number of defects attributed to design remain low throughout Release 0.6 testing, the focus of this	06/30/2022 - New deliverables this month included BI-10 and BI-20. BI-10 was initially called back for quality issues, and the issues were corrected. DHS is not comfortable with BI-10 re-format, will be revised again.	7/30/21 RAP - The N&V team will review and respond to this issue again when a material update is made by the N&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.

ID	Title	Reporter	Finding Type	Identified Date	Category	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Status Update	Client Comments	Vendor Comments
47	The COVID-19 pandemic and the related "stay at home" order could hinder project activities and negatively impact the project schedule and budget.	Michael Fors	Finding - Ris	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.	OPEN - 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. - Send broad communications to stakeholders to assure clear understanding of changes to the Project with regard to impacts of COVID, as well as clarifying communications as to what will remain the same. - Project leadership continue to encourage independent phone conversations to enhance and accelerate communications, and for team members to not wait for meetings to converse. - Consider in-person meetings for critical design sessions if DHS and ASI COVID protocols allow. CLOSED - 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). - 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 - Explore options for freeing up key BESSD SME's to work on the project. - Complete	ASAP	2		2 Low	Open	12/31/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/22 - No material update in the reporting period as the work stoppage continues and the new ASI conducts restart planning. 10/31/22 - No work has been performed regarding this finding due to the work stoppage and ongoing transition to the new ASI. IVV will reassess our recommendations for this finding once more is known. 09/29/22 - IVV remains concerned that the lack of in-person interactions may lead to reduced project team productivity. 08/30/22 - No material update for this reporting period. 07/31/22 - No material update for this reporting period. 06/30/22 - The ASI has stated they have removed the vaccination requirement for working in person and are encouraging staff to spend time in the office. DHS team members are still not required to work in the office but DHS is also encouraging office time. Three DHS team members currently work out of the ASI's downtown Honolulu office. 05/31/22 - The ASI and their subcontractor are making efforts to increase in-office/in-person work which could help to increase productivity and communication as well as overall quality of project work. 04/29/22 - No material update for this reporting period. 03/31/22 - State leadership has rolled back most COVID mandates this month, however, most individual State departments have been given the option of not requiring their staff to work in-person. DHS will likely maintain remote work policies for the foreseeable future. IVV recommends DHS consider strategically requesting in-person meetings for discussions that can be significantly more productive in-person. 2/28/22 - The State of Hawaii is planning on eliminating most COVID mandates as of 3/5/22. In-person meetings could improve collaboration for design and other sessions, if the Project elects to increase in-person meetings. 1/31/22	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
43	DHS PMO project team members have transitioned off the Project, which may cause gaps in knowledge transfer and leadership on the Project.	Ryan Tan	Finding - I	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. Additionally, as per the budget, DHS stated if they are unable to fill these positions timely, DHS may fall out of federal funding compliance and lose the $37 million needed matching funds for continued development of BES.	2/28/2022 - DHS consider other options (Contractors, State employees borrowed from other agencies) 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	12/31/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/22 - No material update in the reporting period as the work stoppage continued and the new ASI conducts restart planning. 10/31/2022 - No work has been performed regarding this finding due to the work stoppage and ongoing transition to the new ASI. IVV will reassess our recommendations for this finding once more is known. 9/30/2022 - No material update in the reporting period. 8/31/2022 - DHS continues to seek applicants for the three PMO positions these positions remain unfilled. 7/29/2022 - DHS has received minimal applications for the open PMO positions therefore, they may fill the positions with contractors. IVV does not have visibility to the full impact of the delay in filling these positions. However, some of the administrative and contract management activities are significant so DHS assigned these activities to internal staff on an interim basis. 6/30/2022 - DHS continues to recruit for PMO resources. No other material updates for this reporting period. 5/31/2022 - DHS continues to recruit for PMO resources, but the three positions remain unfilled. However, some PMO responsibilities are being addressed through existing resources. For example, the contracted DHS PM has filled in leadership gaps and and has positively impacted the Project. 4/28/2022 - No material update 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	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.	Michael Fors	Finding - I	5/28/2019	Project Management	Some platform and BES system architecture decisions have yet to be made and socialized to the project. For example, the ASI and DHS have stated that they have reached agreement that the project will move forward with implementing two Siebel instances (one for KOLEA, one for BES), but this is not currently reflected in the project change log or the project decision log. It remains unclear if the details of the rationale for this decision or the plan for integrating the two instances post go-live have been thoroughly vetted and/or documented. Further, there may be some uncertainty around whether when/if all environments (including KOLEA and BES production) will be moved to the cloud.	The current project architecture and design should be as representative and inclusive of all known future solution plans as possible. As an example, if KOLEA and BES are to move to a single instance of Siebel in the future, planning for that integration should be incorporated into the project now. If such significant future changes are not planned for now, the project is likely to see increased complexity, rework, and costs when integrating the two systems in the future.	- The ASI continue to make updates to the Bi-12 System Architecture Deliverable with additional details as they become available and with any architectural changes are finalized. - Complete - DHS should finalize the Portal strategy and implementation details and 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), M and O, 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. CLOSED 11/30/2022	ASAP	2		2 Low	Open	12/31/22 - IVV and some DHS stakeholders remain concerned with the lack of clarity and lack of communication around the plans for and capabilities of the BES public portal. 11/30/22 - The new ASI is developing its communication plans so it is unknown at this time if their process will improve this issue. IVV notes one specific area that does need additional communication to the project team is the plan and future use of the BES portal. The previous ASI had built the bulk of the portal (based on LifeRay) prior to their departure. The new ASI developed the current portal used by the public to submit applications for benefits. The new ASI is assessing the best way forward and is considering combining both code sets without LifeRay. 10/31/22 - Given that the project is transitioning to the new ASI, it remains unclear what changes the new ASI will make to the planned infrastructure and other technologies being utilized. IVV will update the recommendations to include any infrastructure changes the new ASI may adopt, if any. 9/29/22 - No material update for this reporting period. 8/30/22 - No material update for this reporting period. 7/31/22 - IVV remains concerned with the lack of clear communication around the planned configuration management tool and its intended use. DHS prefers Service Now but it is currently not funded, and IVV is unaware of contingency plans in the event Service Now funding is not approved.. The project is currently assessing the additional level of effort that will be required to comply with the latest revision (Revision 5) of Federally required security controls. IVV is concerned that the move to Revision 5 and potential impact to the project architecture have not been broadly communicated to stakeholders. 6/30/22 - The ASI has stated that their cloud infrastructure will continue to evolve as the technology improves or the cloud provider(s) make changes and that some architecture decisions have yet to be finalized (e.g., use of Splunk vs. Dynatrace). IVV has little to no visibility into whether	06/30/2020 - Combined application is still planned. App still not finalized by DHS. From Arch perspective, we are building in Liferay. Future Integration of the portals is still to be determined, but is not more complex than originally planned for data sharing. If change is made to Adobe, this would require a CR.	4/23/21 rap - The ASI and DHS continue to refine the final plan for the two portal vision. We expect that final decisions will likely be made during this reporting period and communicated to the project. 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
2	Late delivery of project deliverables has caused schedule delays.	Ryan	Finding - I	11/28/2018	Project Management	Based upon the project schedule dated 11/26/18 (refer to schedule for specifics), several due dates for project deliverables have been missed. As of the date of this report, these deliverables include the Project Management Plan (PMP), which is the formal document that is used to manage the execution of the project. In some instances, this risk may be compounded by a backlog of Deliverable Expectation Documents (DED) requiring approval and acceptance from the State.	Late deliverables can lead to schedule impacts and too many late deliverables may cause significant disruption to schedules or delays. ***OLD***Without a PMP that depicts all Project Management processes, the Project can suffer unplanned consequences in scope, schedule, cost, and quality parameters. Without a schedule that provides the required level of detail to manage the work, the project is at risk to be successful.	IN PROGRESS Until the revised schedule is baselined, continue monitoring and analyzing deliverables to ensure there is no minimal impact on the critical path. COMPLETE 5/31/2021 - When the revised schedule is published the project team should restart the weekly practice of reporting actions being taken for late tasks and develop mitigation plans for those tasks that may be late. - Complete 4/30/2021, 7/29/2021, 12/30/2021 - DHS and the ASI agree to a revised schedule against which project deliverables can be managed. 9/30/2020 Recommendation - IVV recommends the project team evaluate the estimating process to determine if changes should be made to reduce the number of late tasks and or conduct a root cause analysis to determine and address the root cause(s). - Closed 8/31/2020 Recommendations; - Prior to acceptance of the new baseline, finalize the needed updates to the project schedule to address the outstanding items/issues identified by DHS, the ASI, and IVV to include the Release 0.1 lessons learned. - Closed - Establish the process for DHS and the ASI to mutually agree to the revised project schedule baseline. - Complete - Establish the process for on-going schedule management and weekly updates, utilizing the Schedule Management sub-plan of the Project Management Plan (BI-04). - Complete 5/31/2020 - Finalize the updates to the project schedule to address the outstanding items/issues identified by DHS and IVV. - Closed 5/31/2020 - Establish the process for DHS and the ASI to mutually agree to the revised project schedule baseline. - Closed 3/31/2020 - Add all tasks that have been performed or planned to be performed in the interim schedule. Closed 5/30/2020 - effective 5/15/2020 the ASI is no longer maintaining the interim schedule. IVV recommends that the ASI complete the Project Management Plan deliverable, work with DHS and IVV for review and edit as needed, and attain approval of the PMP. This will help ensure that all processes within the project management entity are	TBD	3		3 Med	Open	12/31/2022 - No material update in the reporting period as the work stoppage continued and the new ASI conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - The new ASI is assessing the status of all existing deliverables and will continue each one as necessary with new deadlines. For future deliverables, the Project plans to simplify content and the new ASI will revise and submit new Deliverable Expectation Documents (DEDs) for DHS review and approval. 10/31/2022 - The BES Project is being assigned to the new ASI and transition activities are underway therefore no work was performed on the BES deliverables in this reporting period. The ASI transition is planned to complete in November, IVV will provide an update on this finding when the new ASI begins work on the project deliverables. 9/30/2022 - The DHS work stoppage halted all efforts on project deliverables. IVV will continue to monitor this finding once the BES Project resumes. 8/30/2022 - The ASI is behind schedule with development activities which will impact the critical path. Without an approved schedule, it is difficult to determine what is behind schedule and what impacts late deliverables or activities will have to project deadlines. 7/29/2022 - Fewer project deliverables are delivered late, and critical path activities do not appear impacted when this happens since they are not dependent on those deliverables. For example, development delays found in Finding #80 do not appear to be related to late deliverables. Schedule impacts from late deliverables are minimal during this stage of the Project as opposed to the planning/initiation stages where deliverables directly impacted subsequent activities. Given the reduced impact this finding has on the Project, IVV is lowering the criticality rating to "Medium". IVV has separate findings for the BI-5 Project Schedule and BI-13 Security Plan deliverables. 6/30/2022 - The ASI continues to monitor project activities that may impact the critical path		7/20/21 RAP - The ASI will continue to refine the published schedule based on feedback from DHS and the IV&V while we work through the final change request for the ATC which is nearing completion. Regarding the recommendations: Recommendation #1: Based on progress made to date, the ASI is hopeful, that we can agree in principle on the ATC change request in July and have a final schedule published by the end of the month. Recommendation #2: The team has reinstituted every other week schedule meetings and is tracking actions to be taken on late work on