Josh Green, M.D.
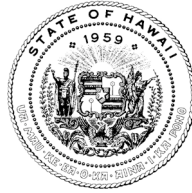GOVERNOR

DOUGLAS MURDOCK
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September 20, 2023

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

The Honorable Scott K. Saiki
Speaker and Members of the
  House of Representatives
Thirty-Second 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 (Sep 21, 2023 15:01 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: August 1 – 31, 2023

*Submitted: September **19, 2023***

Overview

Executive Summary

Executive Summary

The ASI published the revised BES project schedule in August, which includes an eight-week delay of the BES Final Acceptance Test start-up and follow-on Pilot and Statewide implementation. The eight weeks were added to the Release 12 development tasks and activities. The revised schedule also reduced the duration of the BES Statewide Implementation from 107 days to 43 days. The ASI communicated that refinement of the Release 12 development estimates increased the required effort and the resulting need for an eight-week extension. Other key areas of interest include:

- DHS reported several instances of the ASI changing the BES design documentation without DHS awareness, which may present risk to the BES project. IV&V is researching and will provide an update in our next report.

- The ASI requested and DHS agreed to have Sprint Demos recorded by the ASI and sent to DHS for review, rather than hold joint open feedback sessions. The goal of the Sprint Demo is timely and accurate DHS feedback on the developed software so that the ASI can adjust the software quickly and efficiently. IV&V is concerned that DHS giving feedback on a static recording will lead to incomplete feedback or a slower response time if DHS needs clarification.

- There was confusion during UAT for Release 11 since the team did not know what functionality was ready to be tested. Providing a clear understanding of functionality that will be released in Pilot vs. post-Pilot is critical for both DHS and the ASI for implementation planning and execution.

Jun	Jul	Aug	Category	IV&V Observations
M	M	M	Project Management	The ASI revised the BES project schedule, adding 8 weeks to design and development. DHS, FNS, and IV&V are reviewing and will provide feedback to the ASI.

Executive Summary

| Jun	Jul	Aug	Category	IV&V Observations
M	M	M	System Design	The decision to conduct the Sprint demos via recordings rather than allowing for in-person attendance raises concerns for IV&V. An increased opportunity to miss critical details and asynchronous communication may lead to delays or missing functionality.
L	M	M	Configuration and Development	The ASI reassessed the scope of Release 12 which led to the request for an 8-week extension to complete the release development.
L	M	M	Integration and Interface Management	The ASI continues to work on interface development, but outstanding interface agreements are a concern and may impact the schedule. ASI changes to interface design documents that occurred without DHS knowledge are also concerning to IV&V.
M	H	H	Testing	IV&V continues to analyze the ASI's testing coverage in the earlier testing cycles to identify improvement in the preparation for Final Acceptance Testing.
M	M	M	Security and Privacy	The 8-week extension provides more time for the Security and Privacy team to complete their work, helping mitigate the concerns regarding incomplete technical documentation.

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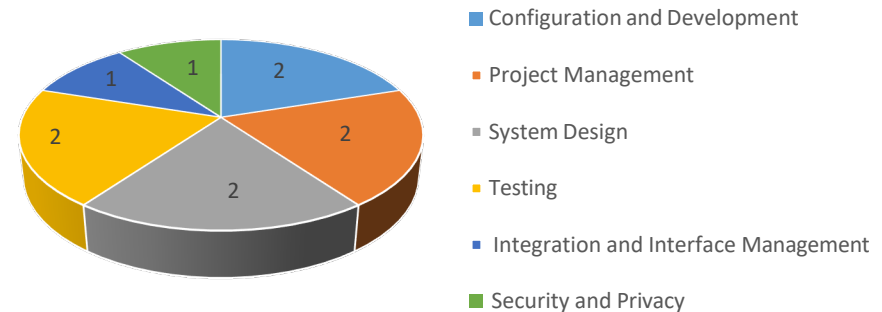
IV&V Findings and Recommendations

As of the August 2023 reporting period, PCG is tracking 10 open findings (6 risks, 4 issues) and has retired a total of 68 findings. Of the 10 open findings, 1 are High, 6 are Medium, and 3 are Low.

Open Risks & Issues
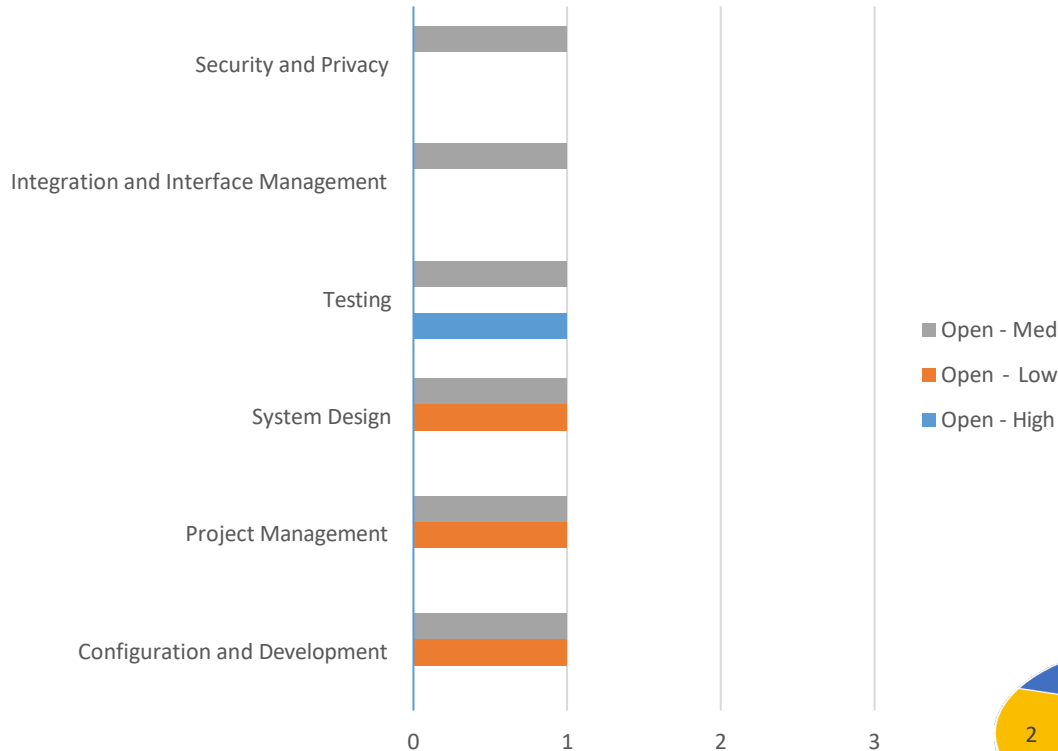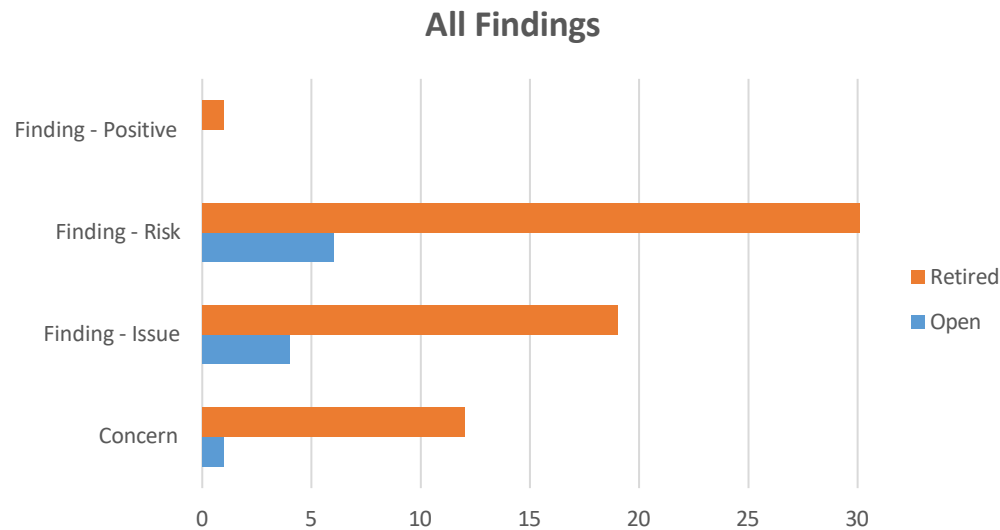

Open Risks & Issues by Category

IV&V Findings and Recommendations

The following figure provides a breakdown of the 79 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
84	**Preliminary Concern – The current UAT approach and planning may not be complete, which increases the likelihood of missing UAT timelines.** The project is applying Release 11 UAT Lessons Learned to plan for the Final Acceptance Test (FAT). A specific example is as the Project Team updates the project schedule to accommodate the 8-week BES implementation delay, the training and test development timelines for FAT were adjusted. This includes securing DHS FAT resources early to conduct training and support test development. IV&V will continue to monitor the ASI efforts toward the recommendations of this finding.	Testing

Recommendations	Progress
• Conduct lessons learned session to incorporate into FAT, including updates of all processes, procedures, roles and responsibilities	In Process
• Train testing resources early before FAT begins and walk through end-to-end scenarios.	In Process
• Develop contingency plans if Release 11.1 UAT does not proceed as planned.	Not Started
• Conduct comprehensive FAT planning	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
29	**Issue – Uncertainty and/or a lack of communication around long-term architecture decisions could impact the project budget, schedule, system design, and planning decisions.** The ASI continues to work on the BI-12 System Architecture Deliverable, with chapters for Common Functions, Shared Services, System Security Plan, Audit System, and Physical Architecture currently under internal review. DHS and IV&V are expected to receive these chapters for review in the month of September.	L

Recommendations	Progress
• The ASI should continue to update the BI-12 System Architecture Deliverable with additional details as they become available and with any finalized architectural changes.	In process
• DHS should continue to ask the ASI to perform due diligence in any recommendation for foundational architecture change decisions and continue to review with appropriate DHS stakeholders (e.g., KOLEA) 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
74	**Issue – A BES Project schedule based on inaccurate estimations diminishes effective planning and resource management, which could result in late deliverables, cost increases, and a late go-live.** The 8-week implementation delay provides the project team with additional time to develop and test the planned Release 12 functionality, including work that was moved from Release 11. Addressing IV&V recommendations for this finding could further remediate risk to the project schedule.	M

Recommendations	Progress
• Monitor, evaluate and revise scheduling estimates for accuracy.	In process
• As requested by DHS, add key milestones to the project schedule, such as Sprint and Epic demos, to show key progress towards completion of Epics.	Not Started
• ASI plan and execute Epic development so that Epic demos can occur earlier in the release schedule and allow time for possible revisions.	In process
• ASI hosts a bi-weekly meeting with DHS and IV&V to review all changes to the project schedules (Primary and DDI).	Complete

IV&V Findings and Recommendations

Integration and Interface Management

#	Key Findings	Criticality Rating
63	**Risk – The lack of early planning and coordination with interface partners may result in schedule delays.** The ASI determined that some of the previously closed MOAs/MOUs may have expired or will expire, therefore, all MOAs and MOUs are being reviewed and re-verified by DHS. This process is not expected to create any roadblocks or schedule delays other than the manpower diversion required to resolve the MOA/MOU statuses. During the August 14th interfaces meeting, the DHS raised concern that the interface Functional Design Documents (FDDs) have changed and no longer reflect designs made during the 2020-2022 timeframe. IV&V is concerned that the designs changed without DHS involvement and may require rework. DHS and IV&V are awaiting the ASI response as to why the designs changed and what corrective actions are necessary.	M

Recommendations	Progress
• Complete all MOAs and obtain approval.	In process
• Confirm testing dates with interface partners in writing.	In process
• Complete early proof of concept interfaces to avoid unexpected delays due to external organization miscommunications or their own internal delays in assisting the BES project.	Not started
• ASI and DHS conduct a root cause analysis to determine the reason FDDs were changed without DHS knowledge.	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.** There is no material update for this reporting period.	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
• DHS and ASI 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.	In process

IV&V Findings and Recommendations

Configuration and Development

#	Key Findings	Criticality Rating
80	**Risk – Development delays could negatively impact the project schedule and delay go-live.** The pilot go-live date has been extended by 2 months. The ASI reported that analysis of the Release 12 development effort made it apparent more time would be needed to complete development. DHS SMEs have reported concerns that the ASI continues to remove scope to meet planned milestones. IV&V remains concerned that DHS and ASI differences regarding functionality for Go-Live may impact the project and cause further delays and a reduction in scope. The Project decision to have the ASI provide recorded Sprint Demos rather than in-person meetings with DHS to gather real-time feedback may lead to delayed feedback, increased DHS questions, and ultimately result in delaying development rather than adding efficiency.	M

Recommendations	Progress
• DHS request the ASI strategically add the right project team resources 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 that can lead and mentor junior resources.	In process
• 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.	In process
• The ASI should provide DHS with the time needed to effectively evaluate the software demonstrations (demos) and elicit productive design discussions with DHS attendees during each demo.	In process
• ASI reviews the development process and identifies and mitigates the challenges preventing them from incorporating Epic demo activities into the project schedule.	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.** The ASI has reported progress in the build-out of Chronicle, their event logging tool. The weekly Architecture/Infrastructure coordination meetings appear to be productive, and the ASI reports that no additional changes are planned for the BES Infrastructure. IV&V will continue to monitor this finding and look for ASI progress in addressing the recommendations.	L

Recommendations	Progress
• 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 tools/components.	In process
• ASI allot time in the schedule to conduct proof of concepts to assure infrastructure components work as expected.	In process
• ASI maintain a detailed schedule for DevOps implementation tasks to avoid unexpected delays that could delay project milestones and the critical path.	In process

IV&V Findings and Recommendations

System Design

#	Key Findings	Criticality Rating
86	**Issue – Limited collaboration between the ASI and DHS in the design process could lead to BES and BES-SSP usability issues and functionality gaps in the applications, and not meeting critical business needs for DHS and State clients.** The ASI will no longer conduct in-person Sprint Demos with DHS approval. Instead, recorded sessions will be provided to DHS with time to review. The amount of time for DHS to review the demos and the feedback process back to the ASI is undetermined. This decision to record Sprint demos without any DHS participation could limit rather than enable timely feedback and contradicts Agile methodology. IV&V encourages ASI and DHS to consider this finding's recommendations to reduce miss-alignment on design that impacts development, testing, and final solution.	M

Recommendations	Progress
• Include a wide enough audience in all design and demo sessions to validate FNS and DHS functional and technical requirements and system usability.	In process
• Perform Sprint and Epic demos in alignment with development sprint completion (demo functionality/requirements as they are developed) to get early feedback on work products.	In process
• Perform comprehensive (demo all requirements) review during Epic demos, not just the items that were added/updated, allowing DHS to provide early feedback on possible issues/gaps that might not be apparent when focusing on specific functionality.	In process

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.** ADA testing started August 1, 2023, and will continue through February 2, 2024. The ASI developed 6 User Journeys and executed 3 tests using the Usablenet tool, which successfully produced reports and results. The ASI is using these tests and reports to address ADA issues and defects. In addition, the ASI is addressing the open IV&V recommendations.	(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 provides DHS/IV&V reports from the ADA tool execution and explain how to interpret the results.	In process

IV&V Findings and Recommendations

Testing

#	Key Findings	Criticality Rating
83	**Issue – Gaps in test coverage and slower-than-expected progress in testing may result in schedule delays if subsequent test phases uncover a higher volume of defects and user feedback than initially anticipated.** The Unit, Integration (INT), and System Integration Testing (SIT) testing phases are not comprehensive, meaning business requirements and functionality are unmet. Specific examples found in User Acceptance Testing (UAT) involve user-selected values not being saved within the system, and conversely, some invalid values being saved. It is unclear why these defects were not identified in the Unit, INT, and SIT testing conducted by ASI. Furthermore, essential activities designed to enhance ASI's test coverage, such as obtaining approval from the DHS for SIT test cases prior to entering the SIT phase, have been overlooked and remain unexecuted.	H

Recommendations	Progress
• Monitor SIT closely for both breadth and depth of testing to ensure the system is adequately tested.	In process
• The project team reviews the SIT exit criteria and revises them as needed to ensure UAT begins with the best system possible.	In process
• The ASI should determine the root cause of the failure to identify simple defects in INT and SIT and implement effective improvement processes to confirm early testing is adequate before entering FAT.	Not Started

IV&V Findings and Recommendations

Security and Privacy

#	Key Findings	Criticality Rating
82	**Risk – The lack of technical documentation may lead to incorrect implementation statements or delay the System Security Plan (SSP).** At the end of August 2023, a majority of the 96 controls from the base SSP were completed. While the Secure Enclave is under design, only 20 implementation statements had been written for the 163 IRS-specific controls at the time of this report. Given that, IV&V remains concerned that the Security team may not be able to complete the remaining implementation statements for IRS-specific controls – even with the extended project schedule.	(M)

Recommendations	Progress
• Determine when the infrastructure design baseline will be completed.	In process
• Determine when documentation will be created, updated, and available for the SSP authors.	Not Started
• Collaborate and communicate with SSP authors about when reliable and correct documentation will be available.	Not Started

IV&V Status

IV&V Engagement Status

IV&V Engagement Area	May	Jun	Jul	Comments
IV&V Budget	🟢	🟢	🟢	
IV&V Schedule	🟢	🟢	🟢	
IV&V Deliverables	🟢	🟢	🟢	PCG submitted the final July IV&V Monthly Status Report.
IV&V Staffing	🟢	🟢	🟢	
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 July reporting period:

    - Completed – July Monthly Status Report

    - Ongoing – Review the BES Project Artifacts and Deliverables

    - Ongoing – Attend BES Project meetings, (see Additional Inputs pages for details)

    - Reviewed available ASI contracts and contract amendments documentation

- Planned IV&V activities for the September reporting period:

    - Ongoing – Observe BES Design and Development sessions as scheduled

    - Ongoing – Observe Bi-Weekly Project Status meetings

    - Ongoing – Observe Weekly Architecture meetings

    - Ongoing – Observe Weekly Security meetings

    - Ongoing – Monthly IV&V findings meetings with the ASI

    - Ongoing – Monthly IV&V Draft Report Review with DHS, ETS and ASI

    - Ongoing – Participate in Bi-Weekly DHS and IV&V Touch Base meetings

    - Ongoing – Review BES artifacts and deliverables

Deliverables Reviewed

Deliverable Name	Deliverable Date	Version
BI-5 Project Schedule - BES 2023 Primary	08/16/2023 08/092023	N/A
BI-5 Project Schedule - BES 2023 DDI	08/16/2023 08/092023	N/A

Additional Inputs – Artifacts

Artifact Name	Artifact Date	Version
BES 2023 Design Kanban board	N/A	N/A
R0.11 Epic Assignment	N/A	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
SNAP_System_Integrity_Review_Tool	Sept 2022	N/A
Interface Dashboard – Confluence page	N/A	N/A
BES 2023 Implementation Planning – Confluence page	N/A	N/A
R0.12 Epic Assignment	N/A	N/A
UAT Testing Dashboard	N/A	N/A

Additional Inputs

Meetings and/or Sessions Attended/Observed:

1. IV&V Team Meeting – 8/3/2023, 8/7/2023, 8/10/2023, 8/11/2023, 8/14/2023, 8/17/2023, 8/21/2023, 8/24/2023, 8/28/2023, 8/31/2023
2. IV&V August 2023 Pre-Draft MSR Findings Review – 7/28/2023
3. HI DHS BES August Draft IV&V Report Review – 8/10/2023
4. Bi-Weekly DHS and IV&V Touch Base - 8/3/2023, 8/22/2023
5. Weekly BES Infrastructure meeting – 8/4/2023, 8/11/2023, 8/18/2023, 8/25/2023
6. DHS/IV&V Check-in – 8/8/2023, 8/17/2023, 8/31/2023
7. Bi-Weekly Client BES 2023 Project Status Meeting – 8/16/2023, 8/23/2023
8. Security Touchpoint – 8/2/2023, 8/9/2023, 8/16/2023, 8/23/2023, 8/30/2023
9. PMO End of Day Huddle – 8/3/2023, 8/8/2023, 8/17/2023, 8/22/2023, 8/24/2023, 8/31/2023
10. (External) Weekly Interfaces Touchpoint 8/7/2023, 8/14/2023, 8/21/2023, 8/28/2023
11. (External Pre-design) BES HANA Integration/Reports Discussion (TANF) – 8/9/2023
12. (External) UI Standards Monthly Review 8/2/2023
13. (External) BI-5 Project Schedule Feedback Review – 8/28/2023
14. (External) Epic 213: Case Location – 8/3/2023
15. (External) Bi-Weekly Client BES 2023 Schedule Review/Status – 8/30/2023
16. (External) BES System Security Plan – Controls - 8/1/2023, 8/15/2023, 8/22/2023, 8/29/2023
17. (External) Readiness and OCM General Meeting – 8/23/2023
18. (External) Bi-weekly BES CCB Meeting – 8/2/2023, 8/16/2023, 8/30/2023

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
86	Limited collaboration between the ASI and DHS in the design process could lead to BES and BES-SSP usability issues and functionalities gaps in the applications, and not meeting critical business needs for DHS and State clients.	Molina, Brad	Finding - Issue	8/1/2023	System Design	During the UAT process for release 11, there has been a high level of concerns raised by the DHS testers regarding the usability of the BES solution, with the expectation that the new system will at minimum provide all functionality found in current applications – but really should provide additional capabilities, greatly enhanced user interface, and overall improved usability from current systems. Should the solution fall short of expectations, there may be challenges in DHS staff adoption; lack of confidence in the solution providing the accurate information needed to provide benefits to HI citizens; reduction in ability for DHS to provide the same level of needed services to clients, resulting in bad publicity for DHS and the state.	A significant amount of money and DHS resource time have been invested in the BES solution, with the expectation that the new system will at minimum provide all functionality found in current applications – but really should provide additional capabilities, greatly enhanced user interface, and overall improved usability from current systems. Should the solution fall short of expectations, there may be challenges in DHS staff adoption; lack of confidence in the solution providing the accurate information needed to provide benefits to HI citizens; reduction in ability for DHS to provide the same level of needed services to clients, resulting in bad publicity for DHS and the state.	- Include a wide enough audience in all design and demo sessions to validate FNS and DHS functional and technical requirements and system usability. - Perform Sprint and Epic demos in alignment with development sprint completion (demo functionality/requirements as they are developed) to get early feedback on work products. - Perform comprehensive (demo all requirements) review during Epic demos, not just the items that were added/updated, allowing DHS to provide early feedback on possible issues/gaps that might not be apparent when focusing on specific functionality.	Now	4	2	Med	Open	8/31/2023 - The ASI will no longer conduct in-person Sprint Demos with DHS approval. Instead, recorded sessions will be provided to DHS with time to review. The amount of time for DHS to review the demos and the feedback process back to the ASI is undetermined. This decision to record Sprint demos without any DHS participation could limit rather than enable timely feedback and contradicts Agile methodology. IVV encourages ASI and DHS to consider this finding's recommendations to reduce miss-alignment on design that impacts development, testing, and final solution.		08/30/2023 As mentioned, Release 11 was just a partial development of the BES System as we continue to evolve the application with R0.12. There were a number of issues/defects that were not part of R0.11 but are included in R0.12.
84	The current UAT approach and planning may not be complete, which increases the likelihood of missing UAT timelines.	Tan, Ryan	Concern	6/29/2023	Testing	Although there is an approved UAT plan and an experienced testing team, the Project appears unprepared for Release 11 UAT. For example, new testing processes, including a Teams Issue Tracker, are not fully developed. While basic workflow understanding exists, test team members raised many questions about testing processes, and some scenarios and defect flows remain undefined. The Project team reported they will refine these processes during UAT.	Without a defined and developed UAT approach and resource plan, there is a potential risk of missing UAT timelines. However, the R11 UAT phase does not fall within the critical path of the project, and a delayed completion or incomplete UAT does not directly impact the overall project schedule. While the immediate schedule implications of incomplete or delayed R11 UAT may be limited, it is important to consider the potential long-term consequences regarding project quality, capacity, and resource retention.	- Conduct lessons learned session to incorporate into Final Acceptance Testing (FAT), including updates of all processes, procedures, roles and responsibilities - Train testing resources early before FAT begins and walk through end-to-end scenarios. - Develop contingency plans if Release 11.1 UAT does not proceed as planned. - Conduct comprehensive FAT planning	UAT	3	1	Low	Open	8/31/2023 - The project is applying Release 11 UAT Lessons Learned to plan for the Final Acceptance Test (FAT). A specific example is as the Project Team updates the project schedule to accommodate the 8-week BES implementation delay, the training and test development timelines for FAT were adjusted. This includes securing DHS FAT resources early to conduct training and support test development. IVV will continue to monitor the ASI efforts toward the recommendations of this finding. 7/31/2023 - Release 11 UAT was completed, and currently, the Project is conducting informal Release 11.1 UAT ad hoc testing. Throughout Release 11 UAT, the Project made significant refinements and changes to the originally planned UAT approach based on lessons learned. For example, the Project decided to discontinue the use of a separate MS Teams Issue Tracker as it failed to provide the expected value. While UAT resources had many questions and spent time discussing testing processes and procedures, defect documentation, severity assignments, and retesting, they did not have a significant volume of tests to execute. As a result, they were able to complete their tests timely. If the Project does not learn from the UAT experience and incorporate these into FAT where the entire application will be tested, IVV remains concerned FAT may experience unanticipated delays and inefficiencies.		
83	Gaps in test coverage and slower-than-expected progress in testing may result in schedule delays if subsequent test phases uncover a higher volume of defects and user feedback than initially anticipated.	Tan, Ryan	Finding - Issue	6/2/2023	Testing	After examining the Project's R11 QA Dashboards, R11 Traceability Dashboards, and Test Repository, gaps in testing coverage may exist and the progress of testing might be lagging. Concerning testing coverage, it appears that not all epics and use cases in R11 have associated test cases or are testing the correct use cases. In terms of progress, some test cases remain unexecuted, and not all defects have been resolved as the project commences Systems Integration Testing (SIT). The ASI has plans to complete the INT exit criteria by June 16, 2023, about 2 weeks after SIT begins.	Identifying defects early is vital for effective testing, as it is more efficient and cost-effective to address issues during the early testing stages. If there is slow progress or incomplete testing in the early stages, it can result in more defects leaking into subsequent testing phases, necessitating more extensive and rigorous testing efforts. Insufficient testing coverage or slower than-anticipated progress throughout the project lifecycle increases the risk of encountering significant delays, extensions, or the introduction of defects into the production environment during the final testing stage, known as Final Acceptance Testing (FAT).	OPEN The ASI should determine the root cause of the failure to identify simple defects in INT and SIT and implement effective improvement processes to confirm early testing is adequate before entering FAT. - DHS and ASI monitor INT/SIT closely for both breadth and depth of testing to ensure the system is adequately tested. - The Project team reviews the SIT exit criteria and revises them as needed to ensure UAT/FAT begins with the best system possible.	UAT	4	4	High	Open	8/31/2023 - The Unit, Integration (INT), and System Integration Testing (SIT) testing phases are not comprehensive, meaning business requirements and functionality are unmet. Specific examples found in User Acceptance Testing (UAT) involve user-selected values not being saved within the system, and conversely, some invalid values being saved. It is unclear why these defects were not identified in the Unit, INT, and SIT testing conducted by ASI. Furthermore, essential activities designed to enhance ASI's test coverage, such as obtaining approval from the DHS for SIT test cases prior to entering the SIT phase, have been overlooked and remain unexecuted. 7/31/2023 - The Project met Release 11 entry and exit criteria. However, the ASI's INT and SIT processes and efforts missed easily identifiable defects that were introduced into subsequent test phases. For instance, defects like UAT-503, 340, 343, 347, 350, and 353 were discovered during INT or SIT and should have been caught during INT or SIT using basic testing. In UAT-350, the UAT tester was unable to edit a date field that should have been editable. In UAT-340, the UAT tester selected and saved some options, but the options were not displayed or saved properly. In addition to finding functional defects, DHS UAT resources are spending time documenting typos, grammar, and visual design aspects (e.g., alignment, font size, etc.). Uncovering such defects during UAT is time-consuming and shifts the focus away from user acceptance testing to subsequent phases. If INT and SIT continue to release defects into subsequent phases, the effectiveness of FAT may be reduced, leading to project delays or defects being released into the production environment. 6/30/2023 - The ASI addressed some INT testing gaps identified by IVV by developing additional test cases and updating the traceability dashboard. The ASI also improved SIT testing by refining and developing additional test cases based on the INT test cases. However, DHS and IVV are not convinced testing activities are sufficiently		06/30/2023 No mentioned or reference to the go decision for R0.11 received by DHS despite the defects being referenced.
82	The lack of technical documentation may lead to incorrect implementation statements or delay the System Security Plan	Heath, Dustin	Finding - Risk	4/27/2023	Security and Privacy	In April, the ASI/DHS system security plan (SSP) authors began writing implementation statements. Currently, the technical documentation supporting the SSP is unavailable, outdated, or in a draft form. During April, decisions on what tools support the SSP controls are still being decided on. Implementation statements are currently being written from the perspective of how the system should be designed from the SSP author's perspective instead of how the system is actually designed. The SSP authors need to know and use documentation such as System Architecture and Design, network topology, dataflow, ports and protocols, tools used for logging, etc.	Once the system architecture and design have been completed, the SSP authors may need to edit or rewrite implementation statements. A full draft of the SSP is scheduled to be published August 15th, 2023, and the final SSP (ready for federal partner review) is scheduled for September 15, 2023. The SSP is a large technical document with hundreds of controls and control enhancements, and each one requires an implementation statement of how the control or enhancement has been met.	- Determine when the infrastructure design baseline will be completed. - Determine when documentation will be created, updated, and available for the SSP authors to edit or rewrite implementation statements. - Collaborate and communicate with SSP authors about when reliable and correct documentation will be available.	December 15th, 2023 when the full SSP is scheduled for completion and approval prior to sharing with Federal partners..	3	3	Med	Open	08/31/2023 - At the end of August 2023, a majority of the 96 controls from the base SSP were completed. While the Secure Enclave is under design, only 20 implementation statements had been written for the 163 IRS-specific controls at the time of this report. Given that, IVV remains concerned that the Security team may not be able to complete the remaining implementation statements for IRS-specific controls – even with the extended project schedule. 07/28/2023 - The SSP Authors have almost completed the initial set of controls for the base system security plan. While this activity appears slightly behind schedule due to staff availability, it should not have an impact on the overall schedule at this time. The ASI is reviewing the existing implementation statements and tracking the controls that may need additional information before submission to DHS and Federal regulators. This month, the ASI replaced its Enterprise Architect. This change in resources caused a pause in the development of technical documentation. There are less than two months remaining to complete the SSP for submission to DHS for approval on September 18th, 2023, and submission to Federal partners by October 2nd, 2023. 06/30/2023 - The SSP Authors have received very little updated, draft, or final technical documentation of the system over the past two months. The SSP Authors have continued writing implementation responses to controls, and many of the control families are nearly complete. However, the responses have been written based on an educated expectation of the system, which could require rework to align the responses with actual system design. 5/31/2023 - The ASI is meeting in early June to develop a plan to complete the recommendations of this finding.		
80	Development delays could negatively impact the project schedule and delay go-live.	Fors, Michael	Finding - Risk	6/30/2022	Configuration and Development	ASI had previously reported development activities have been slowed as they have been unable to achieve and/or maintain their expected development velocity. Previously, the development team was challenged with accurately estimating development task level of effort (i.e., story points) and the project 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. Previously, DHS had indicated, and IVV agreed, that some of these delays were due to some ASI BAs lacking the expertise required to create optimal designs and system specifications that developers could consume without requiring 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 • DHS request the ASI strategically add the right project team resources to effectively increase velocity. Note that adding additional junior resources may not be as effective as staffing additional expert-level 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. • ASI regularly report estimated story points for the total remaining project work to reach go-live and present a dynamic burn-down chart to track the progress. • ASI provide DHS with the time needed to effectively evaluate the software demonstrations (demos) and elicit productive design discussions with DHS attendees during each demo. • ASI reviews the development process and identifies and mitigates the challenges preventing them from incorporating Epic demo activities into the project schedule.	Immediate	3	3	Med	Open	8/31/23 - The pilot go-live date has been extended by 2 months. The ASI reported that analysis of the Release 12 development effort made it apparent more time would be needed to complete development. DHS SMEs have reported concerns that the ASI continues to remove scope to meet planned milestones. IV&V remains concerned that DHS and ASI differences regarding functionality for Go-Live may impact the project and cause further delays and a reduction in scope. The Project decision to have the ASI provide recorded Sprint Demos rather than in-person meetings with DHS to gather real-time feedback may lead to delayed feedback, increased DHS questions, and ultimately result in delaying development rather than adding efficiency. 7/31/23 - The project recently elected to not move forward with their planned Release 11.1 incremental UAT testing and instead opted to only perform ad-hoc (instead of scripted) testing. The ASI stated the primary reason for not being ready for UAT was they were unable to complete the mapping of portal benefit application fields to the BES system. The ASI is assessing potential impacts on the schedule. Given the uncertainty regarding the probability of delays, IVV has raised the Criticality Rating to "Medium". 6/30/23 - DHS and IVV are concerned that most of the demonstrations for Release 11 were delivered at the end of Release 11. This could indicate challenges in the development process, leading to delays in presenting demos to the customer. This hindered DHS's ability to provide productive feedback and has made it difficult for key DHS Subject Matter Experts to attend the demos. Additionally, the ASI's refusal to incorporate Epic demo activities for Release 11.1 and 12 into the project schedule makes it challenging for DHS to coordinate the demo dates with other project activities. 5/31/23 - The ASI is experiencing development delays. Two BES modules that had been completed by the previous ASI need unexpected rework [e.g., Self-Service Portal (SSP), Administrative Hearings]. The ASI also		

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74	A BES Project schedule based on inaccurate estimations diminishes effective planning and resource management, which could result in late deliverables, cost increases, and a late go-live.	Molina, Brad	Finding - Issue	11/29/2021	Project Management	DHS and the ASI have tried multiple times to rework the schedule with results that have not yielded improvement. Concerns with the structure, estimating practices, and ability to manage to the schedule persist. The use of multiple tools to track resources obfuscate resource management. Previous N&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.	OPEN Monitor, evaluate and revise scheduling estimates for accuracy. As requested by DHS, add key milestones to the project schedule, such as Sprint and Epic demos, to show key progress towards completion of Epics. ASI plan and execute Epic development so that Epic demos can occur earlier in the release schedule and allow time for possible revisions. COMPLETE DHS and the ASI agree to a revised schedule against which project deliverables can be managed. (2/28/2023 - complete) ASI host a weekly meeting with DHS and IVV to review all changes to the project schedules (Primary and DDI). (8/31/2023-complete) CLOSED Confirm current assumption that a delay with the current go-live date will not result in major implications. (6/29/23) Leverage velocity and burn down charts to adjust development tasks estimates if needed. Leverage velocity and burn down charts to adjust development tasks estimates if needed. (4/30/2023 - ASI using Jira) Using the available tools, review the current estimates to complete each activity compared to past actual hours (1/31/2023 - new ASI - Not Started) 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 (1/31/2023 - new ASI - Not Started) 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. (1/28/2023 - new ASI) 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. (2/28/2023 - new ASI) The new ASI presents a draft schedule for DHS review/feedback in advance of the project restart kickoff. (1/31/2023 - Not Completed)	Immediate	4	2	Med	Open	8/31/2023 - The 8-week implementation delay provides the project team with additional time to develop and test the planned Release 12 functionality, including work that was moved from Release 11. Addressing IVV recommendations for this finding could further remediate risk to the project schedule. 7/31/2023 - ASI has not provided justification for reducing development and testing efforts in the schedule for Release 12 as requested by DHS and IVV. Additionally, IVV is concerned about ASI delays in providing a BES project schedule to DHS that reflects major revisions to Release 12 as reported by the ASI. IVV will continue to monitor the schedule for any risks that might impact the Project's ability to plan and execute upcoming work. 6/30/2023 - ASI updates to the schedule that resulted in a reduction of the baseline estimates were applied without DHS awareness. Specifically, two development sprints (1 month in total duration) and three integration testing sprints (1.5 months in total duration) were removed. Yet, a significant amount of the scope of work was moved from Release 11 to Release 12, and work was moved out of Release 12 to post-Go-Live. DHS and IVV are uncertain how the ASI determined that they would complete Release 12 scope with the reduced amount of time and have asked the ASI for details about these changes. DHS and IVV are concerned this might exceed the capacity of the development teams, potentially pushing out key milestones on the critical path. 5/31/2023 - The IVV team continues to assess current activities and timing for development and testing, verifying they align with the current schedule. The ASI published a calendar for the remaining Epic demos, as requested by DHS. However, both DHS and IVV remain concerned that most of the demos have been pushed out too late in schedule - which could lead to significant rework and schedule delays. IVV continues to evaluate the schedule and activities, focusing on consistency between these two gauges of the project progress. 4/30/2023 - Late in the		08/30/2023 Inaccurate statement about project schedule updates not being provided for two weeks. Weekly schedule updates continue to be posted.
73	The planned BES infrastructure is complex which could be difficult to implement and lead to schedule/cost impacts.	Fors, Michael	Finding - Risk	10/28/2021	System Design	Current ASI infrastructure plans include a significant number of sophisticated components that make up a complex cloud infrastructure. Further, the Project Team has yet to finalize components that will make up the BES infrastructure and the additional costs and time to configure, test, and implement the planned complex environment remain unclear.	If the level of effort to implement and manage the complexities of the BES infrastructure is not accurately accounted for and staffed by the ASI, the project could be met with unexpected costs and schedule delays. Delays in finalizing the components being implemented could exacerbate this 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 system failure because Google Cloud failed to clearly communicate a change that led to failure in another component (i.e., Nexus). Google Cloud is generally viewed as a less mature product offering, compared to their rivals (Amazon Web Services, Microsoft Azure). IV&V remains concerned that this could lead to failures at critical points in the project (including post-go live production failures) that could be difficult to resolve and lead to project disruption. If DHS intends to eventually reduce M&O outsourcing costs turning over M&O tasks to State employees, they could face challenges supporting tools they may not be familiar with in a complex infrastructure environment.	• ASI 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 the various system tools/components. • ASI allot time in the schedule to conduct proof of concepts to assure infrastructure components work as expected. • ASI maintain a detailed schedule for DevOps implementation tasks to avoid unexpected delays that could delay project milestones and the critical path.	Next several months	2	2	Low	Open	8/31/2023 - The ASI has reported progress in the build out of Chronicle, their event logging tool. The weekly Architecture/Infrastructure coordination meeting appear to be productive, and the ASI reports that no additional changes are planned for the BES Infrastructure. IVV will continue to monitor this finding and look for after the recommendations. 7/31/23- The project recently onboarded a new ASI Enterprise Architect. As this is a key role on the ASI team a candidate and resume were presented to and approved by DHS. 6/30/23 - The ASI has made progress with key infrastructure components, particularly those related to the loading and masking (using Delphix) of legacy data into the UAT environment. These components play a crucial role in improving the testing process, and this progress improves the ASI's ability to create and maintain the BES environments. 5/31/2023 - The ASI made significant progress in mitigating this risk and has remedied many issues and complexities introduced previously. IVV continues to observe productive discussions and details of architecture progress while participating in the weekly project Architecture meetings. Therefore, IVV has lowered the Criticality Rating from 'Medium' to 'Low'. 4/30/2023 - The ASI reports the Architecture & Infrastructure activities at 19 percent complete. ASI also reported that all the required BES infrastructure components have been acquired or licensed. The ASI carried out Proof of Concepts (POCs) for components such as Big Query and the audit framework. However, it is uncertain whether other POCs will be performed to mitigate the potential complexities of implementing multiple components which may interact with one another. 3/31/2023 - The ASI is making updates to the BI-12 System Architecture deliverable to reflect recent changes and expects more changes soon. The ASI has made good progress on the buildout of their DevOps automation scripts that will allow them to manage the cloud environments more easily. Additional BES		
70	Insufficient configuration management could lead to development confusion and reduce the effectiveness of defect resolution	Fors, Michael	Finding - Risk	8/23/2021	Configuration and Development	The BI-6 DDI Plan Deliverable, Section 5.2 establishes the framework for the Configuration Management Plan, however, it remains unclear if sufficient progress has been made toward establishing CM processes and governance, selecting CM tools (e.g., CMDB), and building out the CM infrastructure. The projects Security Plan has yet to be finalized which may include additional requirements or decisions that could impact CM. The project currently relies on Github for tracking of some configurations.	Configuration Management is a set of processes and procedures that ensures the BES is understood and works correctly. The BES solution includes tools that may provide a level of automation for Configuration Management that may reduce errors and should provide the project team with accurate, dynamic and timely information on some of the configuration items. However, it is critical that DHS/ASI agree to the full list of items that are included in the configuration plan along with the details regarding the management of the configuration items, reporting and audit features.	OPEN • ASI adhere to plans for configuration management as documented in BI-6 DDI Plan, Section 5.2 and clarify details and/or any changes with DHS. • ASI validate plans for configuration management with DHS and agree on a meaningful set of configuration items or settings they will track. • DHS and ASI work to clarify/solidify plans for the potential use of configuration management tools. 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	7/31/23 - No material update. 6/30/23 - No material update. 5/31/2023 - The ASI continues to make progress with its utilization of the ServiceNow Configuration Management (CM) tool. They have recently performed an initial import of Google Cloud Platform server details into the ServiceNow Configuration Management Database. *** Continued work. Setup in ServiceNow, will be building up instances. Ongoing support and main. Dont' think still a risk, IVV to discuss. 4/30/2023 - The ASI finalized the ServiceNow (SN) modules they will utilize for the project. 3/31/2023 - The ASI is currently evaluating which Service Now (SN) modules will be the best fit for the project and for DHS going forward. Details of exactly how they'll be using SN and the level of configuration management they intend to perform has yet to be determined. 2/28/2023 - The new ASI intends to utilize ServiceNow (SN) for most configuration management tracking. Details of exactly how they'll be using SN and its multitude of modules and capabilities remain unclear. 1/31/2023 - Activity in the reporting period concentrated on project restart tasks, and IVV will reassess this finding once related project activity has begun. 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 reassessment, IVV is not aware of the plans to mitigate this risk. 08/30/22 - The ASI updated		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.
67	The Americans With Disabilities Act (ADA) Section 508 compliance tool has not been installed for the Project, which may cause significant rework.	Tan, Ryan	Finding - Risk	7/12/2021	Testing	While R0.3 and R0.4 reported that Section 508 compliance had been successfully completed the ASI confirmed that there is currently no working tool installed and that Section 508 compliance testing has not been performed. This risk has been discussed with the ASI over the past several months, but there have been evidence of results to-date. The ASI did state that they are using 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/ub-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.	- 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 provides DHS/IV&V reports from the ADA tool execution and explain how to interpret the results.	As soon as possible and prior to final solution acceptance.	3	3	Med	Open	8/30/2023 - ADA testing started August 1, 2023, and will continue through February 2, 2024. The ASI developed 6 User Journeys and executed 3 tests using the Usablenet tool, which successfully produced reports and results. The ASI is using these tests and reports to address ADA issues and defects. In addition, the ASI is addressing the open IVV recommendations. 7/30/2023 - According to the ASI, the automated tool has been configured and set up, but it is not ready for testing until the User Journeys/Tests to execute are defined. Despite the ASI's previous report of conducting an assessment in June and identifying 28 defects, those assessments were merely trial runs and did not provide any significant value. The ASI plans to commence formal ADA testing in October 2023. They plan to conduct automated testing at an earlier stage to address any issues before formal testing begins. Until then, the ASI will incorporate accessibility guidelines into their design/development activities and conduct manual testing. 6/30/2023 - The ASI conducted an assessment using the ADA compliance tool in June and identified 28 defects. However, DHS and the ASI decided to conduct ADA testing officially in Release 12 (moving all related tasks from Release 11 to Release 12 in the schedule) and the ASI stated that publishing the results of ADA compliance is unnecessary at this time. Although the ASI appears to be actively engaged in ADA testing, IVV is concerned with the decision to withhold publishing the ADA tool's results. Enhanced transparency would provide stakeholders with a better understanding of the ADA testing process. 5/31/2023 - The ASI is preparing to assess the BES system using the selected ADA compliance tool and plans to publish the first compliance test results on June 7, 2023. 4/30/2023 - The Project adopted Usability.net to perform ADA compliance testing. In addition, the ASI continues to enhance automated compliance testing. 3/31/2023 - The ADA compliance tool currently used within DHS does not work the BES architecture. The ASI is		9/9/21 - RAP: The ASI has invited the IV&V to make contact with the development team to review the results of the desk-top tool to gain insight. To date, the IV&V has not contacted the development lead to have further discussions on this topic.

ID	Title	Reporter	Finding Type	Identified Date	Category	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Status Update	Client Comments	Vendor Comments
63	The lack of early planning and coordination with interface partners may result in schedule delays.	Reynolds, Mark	Finding - Risk	1/21/2021	Integration and Interface Management	The following planning and execution items have not yet been addressed and documented by the ASI.- Connectivity is planned to utilize a presently undefined ETS API Gateway; however, there is no evidence that details have been determined or documented in this regard.- There is little evidence of active and sufficient communication with interface partners for coordination, design, and testing activities (Unit Test, SIT, UAT).- Interface planning and execution tasks and activities, including those for interface partners, are neither resident nor managed within the Project Schedule.	DDI project 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 can minimize the risk of potential 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 developed and tested before deploying the system to production.	OPEN 5. Complete all MOAs and obtain formal approvals. 6. Confirm testing dates with interface partners in writing. 7. Complete early proof of concept interfaces to avoid unexpected delays due to external organization miscommunications or their own internal delays in assisting the BES project. 8. ASI and DHS conduct a root cause analysis to determine the reason FDDs were changed without DHS knowledge. COMPLETE 1. Establish a communication plan for each interface partner for the duration of the BES DDI activities. COMPLETED 10/29 2. Identify and document all interface partners' contacts. COMPLETED 3/31/2022 3. Define a release schedule for each interface to include milestone dates, coordination, and execution and share with the interface partners. COMPLETED 01/04 4. Determine which deliverable will include the details associated with the planned connectivity and detailed technical designs of all interfaces. COMPLETED 01/04	Q3 2023	4	2	Med	Open	08/31/2023 - The ASI determined that some of the previously closed MOAs/MOUs may have expired or will expire, therefore, all MOAs and MOUs are being reviewed and re-verified by DHS. This process is not expected to create any roadblocks or schedule delays other than the manpower diversion required to resolve the MOA/MOU statuses. During the August 14th interfaces meeting, the DHS raised concern that the interface Functional Design Documents (FDDs) have changed and no longer reflect designs made during the 2020-2022 timeframe. IVV is concerned that the designs changed without DHS involvement and may require rework. DHS and IVV are awaiting the ASI response as to why the designs changed and what corrective actions are necessary. 07/24/2023 - The ASI and DHS are working to complete the remaining two interface agreements (DLIR and DoTAX). Work is proceeding to review and update all 22 Interface Control Documents (ICDs). None of these interfaces have been fully reviewed and updated. Furthermore, none of the interface technical design documents have been completed. IVV will continue to monitor the ASI efforts toward addressing our recommendations. Release 12 development ends on October 5, 2023; there is little time left to complete the outstanding work. IVV has raised the Criticality Rating to "Medium". 06/29/2023 - The ASI continues to ramp up interface activities, with most of the effort occurring in Release 12. The two remaining agreements to be completed are DoTax (Department of Taxation) DLIR (Department of Labor and Industrial Relations) The ASI is creating the Interface Control Documents (ICD), which includes six in initial draft status, with the remaining ICDs either in process or submitted. IVV will continue to monitor the ASI efforts toward addressing our recommendations. As previously reported, Release 12 development ends on October 5, 2023, and there is little time left to complete the agreements and gain partner input/confirmation on testing and implementation dates.		7/20/21 RAP - The ASI team requests that the IV&V reassess the severity of this risk in light of the following reasons: a) the ATC schedule extension has made the urgency for tackling these tasks less than it was before that started lessening the schedule risk, b) the increase from Medium to High in May was based on a misunderstanding of the current state of the MOA's and contact metrics, c) substantial progress has made against each of the In Progress recommendations, and it continues to trend in the right direction. In regards to
29	Uncertainty and/or a lack of communication around long-term architecture decisions could impact the project budget, schedule, system design, and planning decisions.	Fors, Michael	Finding - Issue	5/28/2019	Project Management	Throughout the last several years since project initiation, platform and BES system architecture decisions have not always been clearly communicated and socialized to all relevant project stakeholders. For example, the ASI and DHS had not broadly communicated their decision implementing two Siebel instances (one for KOLEA, one for BES) in a timely manner, and the decision was not immediately reflected in the project change log or the project decision log. Further, the details of the rationale for this decision or the plan for integrating the two instances were not immediately and/or broadly communicated.	The current project architecture and design should be as representative and inclusive of all known future solution plans as soon as details become available. These architecture plans and future state designs and capabilities should be thoroughly vetted by a broad base of relevant stakeholders and available experts and broadly communicated to relevant stakeholders as soon as possible. Architecture plans and changes that are not effectively communicated can lead to confusion and rework. For example, if infrastructure tools, governance for these tools, and important capabilities/features of these tools are not clearly communicated to development teams, they may have to rework their designs once they realize more advanced platform capabilities/features are available after development planning has completed.	OPEN - The ASI continue to make updates to the BI-12 System Architecture Deliverable with additional details as they become available and with any finalized architectural changes - DHS should continue to ask the ASI to 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. COMPLETE - DHS should finalize the Portal strategy and implementation details and clearly communicate out to stakeholders and project teams. Complete 3/31 CLOSED - 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	8/31/23 - The ASI continues to work on the BI-12 System Architecture Deliverable, with chapters for Common Functions, Shared Services, System Security Plan, Audit System, and Physical Architecture currently under internal review. DHS and IVV are expected to receive these chapters for review in the month of September. 7/31/23 - The project considered changing correspondence tools from Inspire to Google AODocs but recently decided to stay with Inspire. IVV will continue to monitor for broad communication of architectural/tool decisions to relevant stakeholders. The Project is making progress in clarifying key architecture decisions. 6/30/2023 - The project is making progress in clarifying key architecture decisions. One notable decision that has been announced and approved by DHS is the implementation of the two-portal strategy as part of the statewide rollout, rather than including it in the earlier pilot release. 5/31/2023 - Med-QUEST Division (MQD) leadership expressed there is ambiguity on the 2-portal scope-of-work and features (e.g., KOLEA integration with BES). The ASI plans to meet with MQD and other stakeholders to resolve any confusion and will include a broader MQD audience in future MQD/Benefit, Employment, and Support Services Division (BESSD) collaboration efforts. 4/30/23 - No material update in the reporting period. 3/31/2023 - The ASI continues to reevaluate previous infrastructure decisions and is recommending other tools they have deemed a better fit for this project. Uncertainty remains around the use of some tools including ServiceNow (SN), Splunk, and Chronicle. The ASI will go live with their interlinked 2 portals (BES and KOLEA) strategy but may initially go live with less functionality than originally planned and/or communicated. 2/28/2023 - The ASI has made efforts to clarify the scope of BES 2023 in the recent Agile training sessions. There remains some uncertainty around the use of ServiceNow (SN) and the tools that will be utilized for eGRC	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 |