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July 18, 2023

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

The Honorable Scott K. Saiki
Speaker and Members of the
  House of Representatives
Thirty-Second State Legislature
State Capitol, Room 431
Honolulu, Hawaiʻi 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 Hawaiʻi, Department of Human Services, Systems Modernization Project.

In accordance with HRS section 93-16, this report may be viewed electronically at http://ets.hawaii.gov (see "Reports").

Sincerely,

Douglas Murdock (Jul 18, 2023 15:48 HST)

Douglas Murdock
Chief Information Officer
State of Hawaiʻi

Attachments (2)

Hawaii Department of Human Services Systems Modernization Project

Final IV&V Status Report
for Reporting Period: June 1 – 30, 2023

*Submitted: July **17, 2023***

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Solutions that Matter

Overview

Executive Summary

Executive Summary

In June, IV&V notes positive progress by the ASI providing 21 demonstrations of BES functionality developed and tested. Although this is good news, DHS and IV&V remain concerned that ASI will demonstrate the Release 12 BES functionality at the end of the development phase based on what occurred with Release 11, instead of incrementally as the functionality is developed and tested. Two possible outcomes may occur: 1) The DHS project team may not be forthcoming regarding design concerns for fear of impacting the schedule, or 2) the issues raised during the demonstrations will require significant rework – meaning resource reallocations may be necessary and may have either a schedule or scope of work impact prior to Pilot.

Other key events in this reporting period included:

- IV&V continued to assess the testing of Release 11, including the ongoing identification of possible gaps in testing coverage as introduced in the IV&V May 2023 report, as well as a new concern included in this month's IV&V report focused on the adequacy of preparation for Release 11 UAT scheduled to start in July 2023.

- DHS and the ASI agreed to push ADA compliance testing to Release 12. Although the ASI has ADA test results, they have not been shared with DHS or IV&V. It is unclear why the ADA test results have not been shared especially since the ASI is reporting they are addressing the ADA test outcomes in the development process.

As the Pilot start date is right around the corner, the level of urgency and pace of the project is expected to increase in line with the demands of the project and project team. The project resources (ASI and DHS) are spread across a large increase in design work (and related demonstrations) for Release 12 while Release 11.1 development is underway and User Acceptance Testing for Release 11 (and eventually 11.1) kicks off. IV&V will continue assessment work across all the open findings impacted by this critical stage of the project, reporting potential risks and suggesting mitigation activities for the BES project.

Apr	May	Jun	Category	IV&V Observations
M	M	M	Project Management	DHS and IV&V discovered changes to the Release 12 schedule that reduced the time to complete Release 12 work. The ASI has been asked for details regarding the information used to make these schedule changes.

Executive Summary

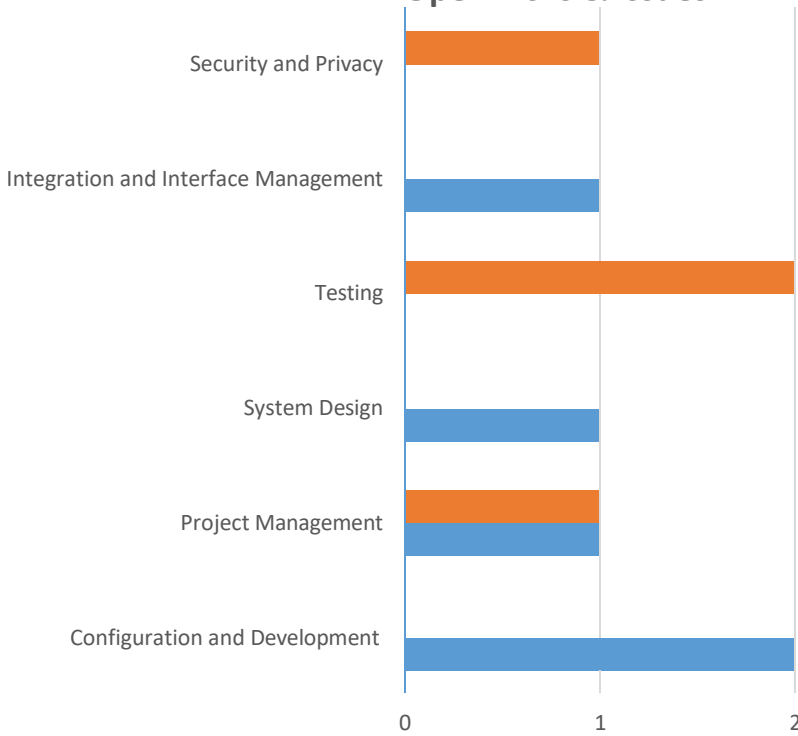| Apr	May	Jun	Category	IV&V Observations
M	L	L	System Design	The ASI continues to make progress in its approach to building and maintaining the BES infrastructure.
L	L	L	Configuration and Development	The ASI hired additional developers, system analysts, and business analysts to meet the demands of completing the scope of release 12.
L	L	L	Integration and Interface Management	IV&V continues to monitor the progress of the BES project interfaces.
M	M	M	Testing	The Release 11 System Integration testing moved towards completion. The ASI and DHS decided to postpone ADA validation testing to Release 12.
L	M	M	Security and Privacy	A delay in completing system technical documentation is impacting the completion of security and privacy implementation statements and could also result in rework.

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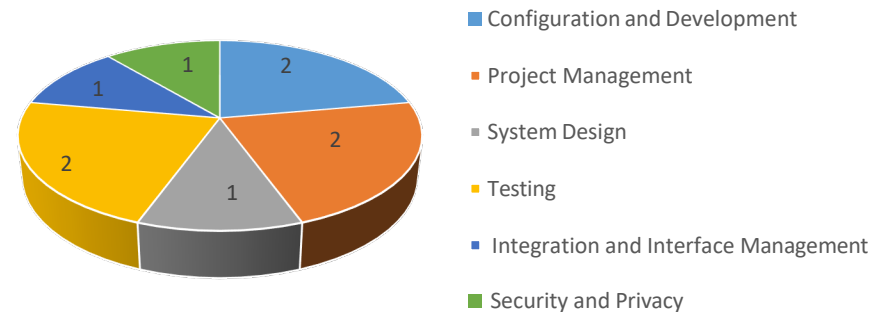
IV&V Findings and Recommendations

As of the June 2023 reporting period, PCG is tracking 9 open findings (7 risks, 2 issues) and has retired a total of 68 findings. Of the 9 open findings, 4 are Medium, and 5 are Low.

Open Risks & Issues

Legend:
- Open - Med
- Open - Low

Open Risks & Issues by Category

Legend:
- Configuration and Development
- Project Management
- System Design
- Testing
- Integration and Interface Management
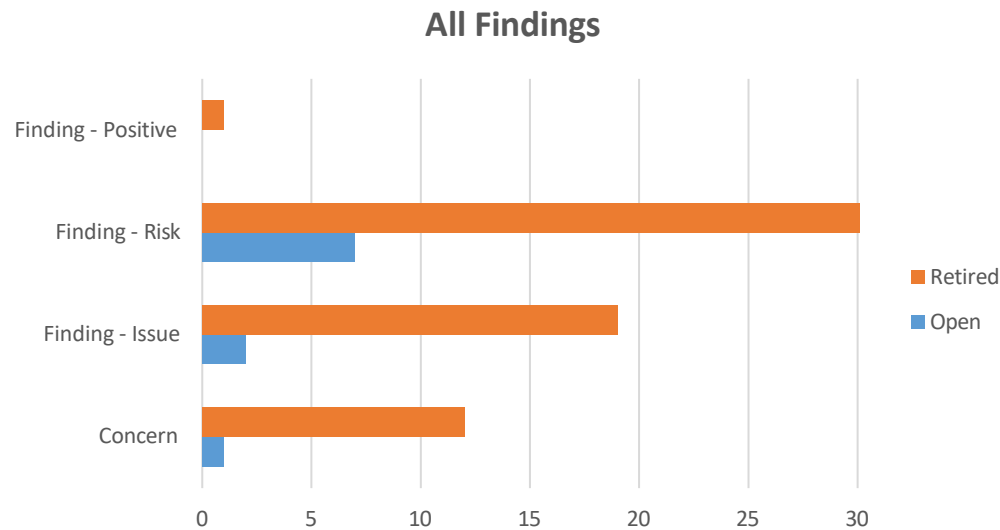- Security and Privacy

IV&V Findings and Recommendations

The following figure provides a breakdown of the 78 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.** **Observation;** 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. **Significance**: 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.	Testing

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 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.	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.** 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 IV&V 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 IV&V are concerned this might exceed the capacity of the development teams, potentially pushing out key milestones on the critical path.	M

Recommendations	Progress
• Monitor, evaluate and revise scheduling estimates for accuracy.	In process
• 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

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 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. IV&V 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.	L

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

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.** DHS and IV&V 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.	L

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 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.	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

Testing

#	Key Findings	Criticality Rating
67	**Risk - The Americans With Disabilities Act (ADA) Section 508 compliance tool has not been installed for the Project, which may cause significant rework.** The ASI 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, IV&V 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.	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.	Not started

IV&V Findings and Recommendations

Testing

#	Key Findings	Criticality Rating
83	**Risk – 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 ASI addressed some INT testing gaps identified by IV&V 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 IV&V are not convinced testing activities are sufficiently testing all functionality which could lead to a larger-than-expected number of defects in future testing phases, potentially pushing out key milestones on the critical path.	M

Recommendations	Progress
• Monitor SIT closely for both breadth and depth of testing to ensure the system is adequately tested.	Not Started
• The project team reviews the SIT exit criteria and revises them as needed to ensure UAT begins with the best system possible.	In process
• ASI and DHS spot-check Integration Tests during Release 12 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).** 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 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 the actual system design. This documentation should be made available to the SSP Authors before the July 28, 2023 completion of the draft implementations of all control families.	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	Apr	May	Jun	Comments
IV&V Budget	🟢	🟢	🟢	
IV&V Schedule	🟢	🟢	🟢	
IV&V Deliverables	🟢	🟢	🟢	PCG submitted the final May 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 June reporting period:

  - Completed – May 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 July 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		N/A
BI-5 Project Schedule - BES 2023 DDI		N/A
BI-08 Technical Environments Specifications – UAT1	6/23/2023	V10
BI-08 Technical Environments Specifications – PRD1	6/23/2023	V1
BI-08 Technical Environments Specifications – DRX1	6/23/2023	V1

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
One RTM (Aha)	N/A	V1
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

Additional Inputs

Meetings and/or Sessions Attended/Observed:

1. IV&V Team Meeting – 6/5/2023, 6/8/2023, 6/12/2023, 6/15/2023, 6/19/2023, 6/22/2023, 6/26/2023, 6/29/2023
2. IV&V May 2023 Pre-Draft MSR Findings Review – 6/1/2023
3. HI DHS BES June Draft IV&V Report Review – 6/29/2023
4. IV&V May Findings Roast – 6/2/2023
5. PMO End of Day Huddle – 6/1/2023, 6/6/2023, 6/8/2023, 6/13/2023, 6/15/2023, 6/20/2023, 6/22/2023, 6/27/2023,6/29/2023
6. Bi-Weekly DHS and IV&V Touch Base– 6/13/2023
7. Weekly BES Infrastructure meeting – 6/1/2023, 6/9/2023, 6/16/2023, 6/23/2023, 6/30/2023
8. DHS/IV&V Check-in – 6/8/2023, 6/22/2023
9. Bi-Weekly Client BES 2023 Project Status Meeting – 6/14/2023, 6/28/2023
10. Security Touchpoint – 5/24/2023, 5/31/2023
11. (External) Epic 143 BES-SSP Pre-Screening Sprint Demo – 6/1/2023
12. (External) Epic 104 CF35a Sprint Demo – 6/1/2023
13. (External) Epic 114 Epic Demo – 6/1/2023
14. (External) BES Integration Testing Review – 6/2/2023
15. (External) Epic 111 Program Status Sprint Demo – 6/7/2023
16. (External) Epic 112 Manual Verification Sprint Demo – 6/7/2023
17. (Internal) Epic 113 Epic Demo – 6/7/2023
18. (External) Epic 140 Time Limited Benefits Epic Demo – 6/7/2023
19. (External) Epic 101 Appointments Sprint Demo – 6/8
20. (External) Epic 134 Case Membership Sprint Demo – 6/8
21. (External) Epic 103 Correspondence Sprint Demo – 6/8
22. (External) Epic 104 Task Management and Current Integration Epic Demo – 6/8
23. (External) Epic 110 Alerts and Special Indicators Epic Demo – 6/8/2023
24. (External) Epic 122 Interview Epic Demo – 6/9/2023
25. (External) Epic 112 Manual Verifications Epic Demo – 6/14/2023

Additional Inputs

Meetings and/or Sessions Attended/Observed (Cont):

26. (External) Epic 111 Program Status Epic Demo – 6/14/2023
27. (External) Readiness and OCM General Meeting – 6/14/2023, 6/28/2023
28. (External) Epic 107 Verifications Epic Demo – 6/14/2023
29. (External) Epic 103 Correspondence Epic Demo – 6/15/2023
30. (External) Epic 108 Eligibility Determination and Epic 118 Correspondence Epic Demo – 6/15/2023
31. (External) Epic 143 BES Portal Epic Demo – 6/16/2023
32. (External) Epic 134 Case Epic Demo – 6/16/2023
33. (External) Epic 117 Document Management Epic Demo – 6/19/2023
34. (External) UAT Test Team Huddle – 6/1/2023, 6/8/2023, 6/15/2023, 6/22/2023
35. ASI/IV&V Touchbase – 6/21/2023
36. (External) BES System Security Plan Controls Implementation Discussion – 6/27/2023
37. (External) Security Touchpoint – 6/28/2023

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

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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
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.	Develop contingency plans if Release 11 UAT does not proceed as planned. Develop contingency plan if UAT appears to be bogged down by defects and cannot test effectively.	UAT	2	3	Med	Open			
83	Gaps in test coverage and slower-than-expected progress in testing may result in schedule delay if subsequent test phases uncover a higher volume of defects and user feedback than initially anticipated.	Tan, Ryan	Finding - Risk	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 System 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 Monitor 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 begins with the best system possible. ASI and DHS spot-check Integration Tests during Release 12 to confirm early testing is adequate before entering FAT.	UAT	3	3	Med	Open	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 testing all functionality which could lead to a larger-than-expected number of defects in future testing phases, potentially pushing out key milestones on the critical path.		
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 1, 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. - Collaborate and communicate with SSP authors about when reliable and correct documentation will be available.	August 1st, when the full draft of the SSP is scheduled for completion.	3	3	Med	Open	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 ASI is unable to achieve 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 development, analysis, and other resources that can lead and mentor junior 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 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	1	Low	Open	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 decided to rewrite the SSP rather than upgrade the version of the software used to develop the module, which resulted in an unanticipated level of effort. 4/30/23 - The ASI delayed six planned demonstrations of BES functionality to DHS. Release 0.11 (R11) development work is planned to be completed on June 1, 2023. The ASI should provide DHS with the time needed to effectively evaluate the demonstrations. Additionally, without transparency on the root cause of the delays and lack of accurate velocity reports, there may be downstream impacts. If ASI resources remain allocated to R11 while developing R12, they may experience unexpected delays for R12. 3/31/23 - The ASI is taking multiple actions to mitigate potential delays to development, including: - Monitoring the capacity of each development team, adding resources needed to complete work as scheduled. - Adding three highly skilled, veteran business analysts to improve system design that development teams will leverage. - Developing a dashboard view of Epics in progress showing status and progress as well as burndown and velocity charts to show team productivity. The project is halfway through release 0.11, and the ASI has demonstrated only two of the		
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 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.	OPEN Monitor, evaluate and revise scheduling estimates for accuracy. 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) 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, address 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	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 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. 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 month, ASI committed to providing DHS and IVV a walkthrough of Jira, which is used to manage and report information to track the progress of testing and development work. With this additional knowledge, both DHS and IVV can validate that the schedule(s) accurately reflect the project's effort and timing. 3/31/2023 - The ASI continues to incorporate details to the project schedules (Primary and DDI) to track all the activities in progress, including dev ops tasks such as Jira. IVV will continue to validate that the schedules accurately capture the tasks and timing observed in the correlated workstreams and tools, such as Jira. 2/28/2023 - The BES Project schedule was approved on 2/15/23 and its development included DHS and ASI input		
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 product offering. 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	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 infrastructure. 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 made good progress on the buildout of their DevOps automation scripts that will allow them to manage the cloud environments more easily. Additional BES infrastructure tasks are being added to the project schedule and should be evaluated to determine if they impact the critical path. 2/28/2023 - Though the new ASI intends to simplify the BES infrastructure, it remains unclear whether that will be possible in a timely manner and avoid impacting the critical path. The new ASI also intends to expand on the previous ASI scope of DevOps by adding more automation. While this has the potential to simplify environment management, it could also present challenges without impacting the schedule. 1/31/2023 -		

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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	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. 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 with		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 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.	- 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	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, IV's 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 evaluating an ADA Compliance tool and is working with DHS to validate it will meet all requirements. In the interim, the ASI implemented automated testing to check for screen reading compatibility. 2/28/2023 - The Project is evaluating different ADA compliance tools. DHS currently uses Site Improve in other areas and the ASI is reviewing its feasibility for this project. The ASI requested access to the Site Improve tool for a Proof of Concept (POC) Additionally, the ASI previously evaluated Usability.net and will use it if the Site Improve POC is unsuccessful. 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		9/9/21 - RAP: The ASI has invited the IV&V to make contact with the development team to review the results of the desk-top tool to gain insight. To date, the IV&V has not contacted the development lead to have further discussions on this topic.
63	The lack of early planning and coordination with interface partners may result in schedule delays.	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. 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	1	Low	Open	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 each 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. 05/31/2023 - Interface definitions and partner agreements remain incomplete for the following interfaces: NDNH (National Directory of New Hires) DOH (Department of Health) DLIR (Department of Labor and Industrial Relations) HYCF (Hawaii Youth Correctional Facility) DoTax (Department of Taxation) AVS (Asset Verification Services) Hawaii Child Support Enforcement Agency Completing these open items will support the ASI in completing the interface development in Release 12. 04/27/2023 - The ASI took positive action on this risk during this reporting period. The Interface dashboard was revised and updated to provide the information necessary to manage this activity. The MOA's continue to be reviewed and updated, if needed. 03/31/2023 - Interface design began in March with the HI Department of Health (DOH) vital records data exchange. The ASI created an interface dashboard in Confluence which shows several near-term Epic start dates, but key details are not yet completed for all interfaces. The interfaces are also included in the DDI schedule under Release 12. The ASI will assess the IVV recommendations as interface work proceeds. 02/28/2023 - The new ASI is reviewing all the BES interfaces and is building a Confluence dashboard to track and progress and status of each interface. 01/31/2023 - Activity in the		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 year 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 make 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	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. 01/31/23 - It remains unclear if the scope of the BES 2023 phase 1 has been clearly communicated to stakeholders. For some, the understanding is that the ASI is developing a lift-and-shift of their existing legacy system (HAWI) with little to no improvements (to avoid scope creep) and have labeled it HAWI 2.0. Others seem to think the ASI will continue the work of the previous ASI that include improvements based on previous ASI design sessions. 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	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