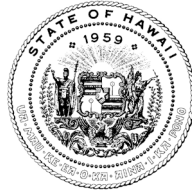


Josh Green, M.D.
GOVERNOR



DOUGLAS MURDOCK
CHIEF INFORMATION
OFFICER

OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

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June 16, 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 (Jun 16, 2023 09:31 HST)

Douglas Murdock
Chief Information Officer
State of Hawai'i

Attachments (2)



Hawaii Department of Human Services Systems Modernization Project

Final IV&V Status Report
for Reporting Period: May 1 – 31, 2023

Submitted: June 14, 2023

Overview

- [Executive Summary](#)
- [IV&V Findings and Recommendations](#)
- [IV&V Engagement Status](#)
- [Appendices](#)
 - [A – IV&V Criticality Ratings](#)
 - [B – Risk Identification Report](#)
 - [C – Acronyms and Glossary](#)
 - [D – Background Information](#)



Solutions that Matter

The background is a solid blue color. It features several decorative elements: a cluster of overlapping squares and rounded rectangles in various shades of blue (light, medium, and dark) on the left side; a single large rounded rectangle with a white outline in the center-left; and another cluster of overlapping squares and rounded rectangles on the right side, including one with a white outline.

Executive Summary



In May, the IV&V team retired four findings based on the positive changes by the ASI and DHS over the last few months. Although this is good news, the ASI did report development delays due to the unanticipated rework of the Self-Service Portal (SSP) software code. DHS and the ASI developed mitigation actions to avoid any further delays or schedule slippage.

Other Key Events in this reporting period include:

- IV&V opened a preliminary concern to research possible gaps in test coverage of Release 11 requirements. We are working with both DHS and the ASI to determine that all Release 11 requirements and functionality will be tested before the code is available for DHS UAT verification.
- Two additional BES functionality demonstrations occurred in May. DHS requested and the ASI provided the schedule of all future demonstrations on May 31, 2023. IV&V is concerned that any issues discovered in the demonstrations will require the development teams to remain focused on Release 11 and delay the development of Release 12 functionality.

Overall, good progress was made by the project team in May. The DHS and ASI leadership team are actively managing to the schedule to include issue resolution as they arise without negatively impacting the BES schedule. The project is quickly approaching the Release 11 user acceptance testing phase milestone, the results of this activity will validate the BES project's revised approach and provide some expected lessons learned.

Mar	Apr	May	Category	IV&V Observations
M	M	M	Project Management	The ASI delivered a Jira overview to DHS that provided details into how Jira is being used in conjunction with the project schedule to manage project activities. Additional Jira boards that the ASI uses to track work were shared with DHS and IV&V. Release 11 development delays were identified with corrective actions planned.

Executive Summary



Mar	Apr	May	Category	IV&V Observations
M	M	L	System Design	Most of the software demonstrations to confirm the design of the Release 11 functionality are occurring late in the release schedule and may impact the schedule based on the DHS feedback or result in DHS accepting suboptimal designs to keep the schedule on track.
L	L	L	Configuration and Development	The ASI has reported increasing development team velocity, a measure of productivity. It is unclear if this will help mitigate further development delays as IV&V has not seen the overall project backlog of development work remaining.
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 User Acceptance Plan draft has been released for DHS and IV&V review. The ASI will deploy the ADA compliance tool in June.
M	L	M	Security and Privacy	DHS and the ASI team continue to develop implementation controls. The lack of finalized system technical documentation may result in delays in the completion of the BES System Security Plan.

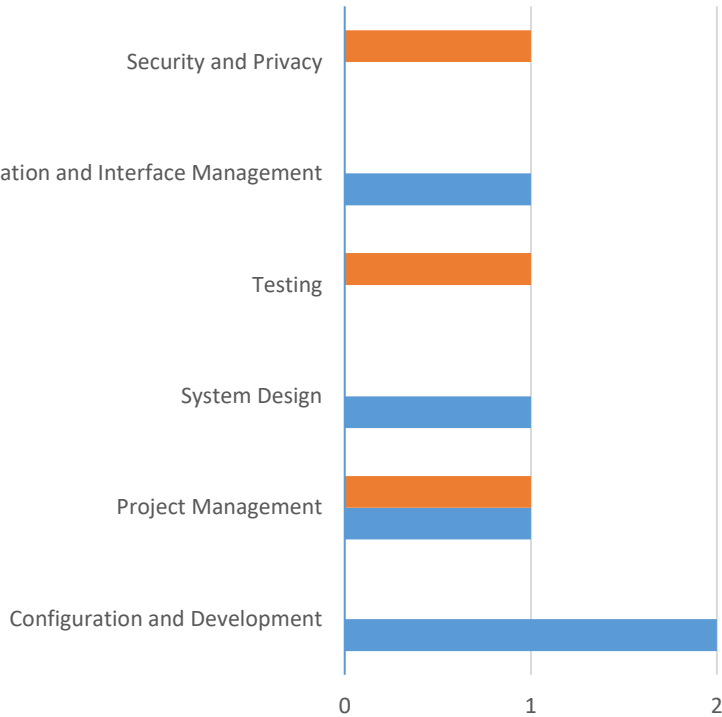
IV&V Findings and Recommendations

IV&V Findings and Recommendations



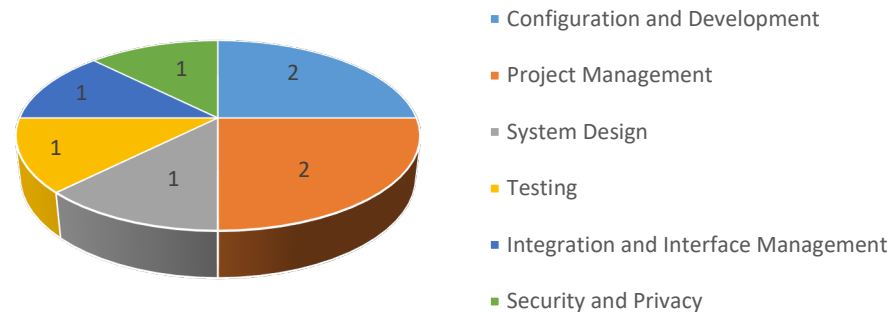
As of the May 2023 reporting period, PCG is tracking 8 open findings (6 risks, 2 issues) and has retired a total of 68 findings. Of the 8 open findings, 3 are Medium, and 5 are Low.

Open Risks & Issues



Open - Med
Open - Low

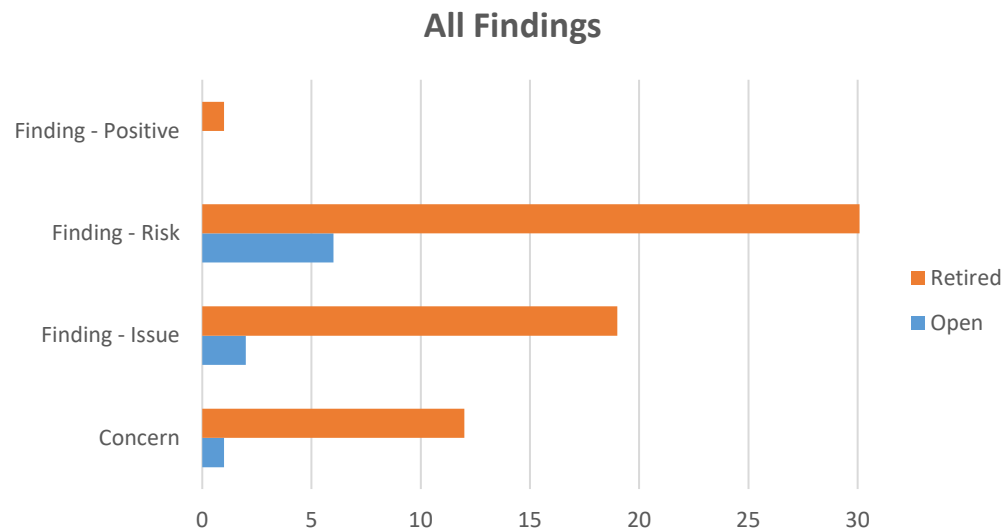
Open Risks & Issues by Category



IV&V Findings and Recommendations



The following figure provides a breakdown of the 77 IV&V findings (positive, risks, issues, concerns) by status (open, retired).



IV&V Findings and Recommendations



Findings Retired During the Reporting Period

#	Finding	Category
43	<p>Issue – DHS PMO project team members have transitioned off the Project, which may cause gaps in knowledge transfer and leadership on the Project.</p> <p>This finding has been open for three years and despite attempts by DHS to fund and hire staff in these positions, they remain open and unfilled. DHS stated they have addressed the most critical needs and accept this risk to the BES Project; therefore, IV&V is retiring this finding. IV&V has limited visibility into the budgeting process and overall DHS PMO organization so it is doubtful IV&V can determine the future impact of DHS accepting this risk.</p>	Project Management
61	<p>Issue – Poorly executed JAD and "design sessions" could lead to inaccurate design and rework.</p> <p>The focus of this finding, inadequate facilitation, is no longer materially affecting design sessions and outcomes. Therefore, IV&V is retiring this finding.</p>	System Design
68	<p>Risk - Incomplete implementation statements in the BES System Security Plan activities may lead to delays in gaining Federal Partner approval for the BES Project to begin the Pilot Phase.</p> <p>IV&V is retiring this finding based on the progress and knowledge level of the DHS and ASI team members developing and executing the BI-13 Systems Security Plan. IV&V notes, one recommendation regarding the procurement and implementation of an Electronic Governance, Risk, and Control (eGRC) system may be pursued in the future by DHS.</p>	Security and Privacy
79	<p>Issue – External vendor delays in the development of the BES task management system interface have impacted the project schedule.</p> <p>The ASI stated that the task management vendor provided specific details on the solution to meet the BES requirements for the upcoming design of Epic 104, which is specific to the BES task management system. Therefore, IV&V retired this finding.</p>	Integration and Interface Management

IV&V Findings and Recommendations



Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
83	<p>Gaps in test coverage and slower-than-expected progress in integration testing (INT) may result in schedule delays if subsequent test phases uncover a higher volume of defects and user feedback than initially anticipated.</p> <p>Observation: After examining the Project's Release 11 QA Dashboards, Release 11 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 Release 11 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.</p> <p>Significance: 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).</p>	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	<p>Issue – Uncertainty and/or a lack of communication around long-term architecture decisions could impact the project budget, schedule, system design, and planning decisions.</p> <p>Med-QUEST Division (MQD) leadership expressed there is ambiguity on the 2-portal scope-of-work and features (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.</p>	

Recommendations	Progress
<ul style="list-style-type: none">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
<ul style="list-style-type: none">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
<ul style="list-style-type: none">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	<p>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.</p> <p>To mitigate encountered Release 11 development delays, the ASI will begin system integration testing as planned at the beginning of June, creating an overlap with the ongoing development activities. IV&V is concerned with this approach in that it requires close coordination and communication between the test and development teams and may require some rework by the test team to validate that all functionality was fully tested prior to moving into the User Acceptance Test (UAT) phase.</p> <p>Unexpected rework of the Self-Service Portal (SSP) module caused a second development delay. The ASI will use a Release 11.01 ‘point release’ to complete development and deploy SSP to Release 11 UAT before DHS’ planned finish of UAT in late July. Similar to the previous concern, depending on the timing and functionality deployed, this may cause rework by the DHS UAT test team which may have further downstream or schedule impacts.</p> <p>The ASI published a calendar for the remaining Epic demos, as requested by DHS. However, both DHS and IV&V remain concerned that most of the demos have been pushed out too late in schedule - which could lead to significant rework and schedule delays.</p>	

Recommendations	Progress
<ul style="list-style-type: none"> Monitor, evaluate and revise scheduling estimates for accuracy. 	In process
<ul style="list-style-type: none"> Confirm current assumption that a delay with the current go-live date will not result in major implications. 	In process
<ul style="list-style-type: none"> Add key milestones to the project schedule, such as sprint and epic demos, to show key progress towards completion of Epics. 	In process
<ul style="list-style-type: none"> ASI plan and execute Epic development so that Epic Demos can occur earlier in the release schedule and allow time for possible revisions. 	Not Started

IV&V Findings and Recommendations



Integration and Interface Management

#	Key Findings	Criticality Rating
63	<p>Risk – The lack of early planning and coordination with interface partners may result in schedule delays.</p> <p>Interface definitions and partner agreements for 6 of 25 interfaces remain outstanding. Considering that Release 12 development ends on October 5, 2023, there is little time left to complete the agreements and gain partner input/confirmation on testing and implementation dates.</p> <ul style="list-style-type: none"> • NDNH (National Directory of New Hires) • 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 <p>Completing these open items will support the ASI in completing the interface development in Release 12.</p>	

Recommendations	Progress
<ul style="list-style-type: none"> • Complete all MOAs and obtain approval. 	In process
<ul style="list-style-type: none"> • Confirm testing dates with interface partners in writing. 	In process
<ul style="list-style-type: none"> • 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	<p>Risk – Insufficient configuration management could lead to development confusion and reduce the effectiveness of defect resolution.</p> <p>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.</p>	

Recommendations	Progress
<ul style="list-style-type: none">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
<ul style="list-style-type: none">ASI validate plans for configuration management with DHS and agree on a meaningful set of configuration items or settings they will track.	In process
<ul style="list-style-type: none">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	<p>Risk – Development delays could negatively impact the project schedule and delay go-live.</p> <p>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.</p> <p>The ASI intends to mitigate the Release 11 BES-SSP development delay risks by deploying a planned late-July dot release (Release 11.01) to User Acceptance Testing (UAT) after Release 11. This release will overlap with System Integration Testing and most of UAT but is planned to be tested before UAT ends to avoid impacts to the overall schedule and go-live.</p>	

Recommendations	Progress
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> The ASI should provide DHS with the time needed to effectively evaluate the software demonstrations. 	Not Started

IV&V Findings and Recommendations



System Design

#	Key Findings	Criticality Rating
73	<p>Risk – The planned BES infrastructure is complex which could be difficult to implement and maintain and could lead to schedule/cost impacts.</p> <p>The ASI made significant progress in mitigating this risk and has remedied many issues and complexities introduced previously. IV&V continues to observe productive discussions and details of architecture progress while participating in the weekly project Architecture meetings. Therefore, IV&V has lowered the Criticality Rating from ‘Medium’ to ‘Low’.</p>	

Recommendations	Progress
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• The project team work to establish strong governance over the utilization and maintenance of various tools/components.	In process
<ul style="list-style-type: none">• ASI allot time in the schedule to conduct proof of concepts to assure infrastructure components work as expected.	In process
<ul style="list-style-type: none">• 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	<p>Risk - The Americans With Disabilities Act (ADA) Section 508 compliance tool has not been installed for the Project, which may cause significant rework.</p> <p>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.</p>	

Recommendations	Progress
<ul style="list-style-type: none">The ADA tool meets contractual and project requirements.	In process
<ul style="list-style-type: none">The ASI communicates a plan for ADA test execution.	In process
<ul style="list-style-type: none">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
<ul style="list-style-type: none">The ASI communicates how and when DHS/IV&V will be provided the reports from the ADA tool execution and how to interpret the results.	In process

IV&V Findings and Recommendations



Security and Privacy

#	Key Findings	Criticality Rating
82	<p>Risk – The lack of technical documentation may lead to incorrect implementation statements or delay the System Security Plan.</p> <p>The ASI is meeting in early June to develop a plan to complete the recommendations of this finding.</p>	

Recommendations	Progress
<ul style="list-style-type: none">Determine when the infrastructure design baseline will be completed.	In process
<ul style="list-style-type: none">Determine when documentation will be created, updated, and available for the SSP authors.	Not Started
<ul style="list-style-type: none">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	Mar	Apr	May	Comments
IV&V Budget				
IV&V Schedule				
IV&V Deliverables				PCG submitted the final April IV&V Monthly Status Report.
IV&V Staffing				
IV&V Scope				

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



- IV&V activities in the May reporting period:
 - Completed – April 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 June reporting period:
 - Ongoing – Observe BES Design and Development sessions as scheduled
 - Ongoing – Observe Bi-Weekly Project Status meetings
 - Ongoing – Observe Weekly Architecture meetings
 - Ongoing – Observe Weekly Security meetings
 - Ongoing – 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	05/06/2023 05/15/2023 05/20/2023 50/27/2023	N/A
BI-5 Project Schedule - BES 2023 DDI	05/06/2023 05/13/2023 05/20/2023 50/27/2023	N/A
BI-12 System Architecture		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
BES QA Dashboard	N/A	N/A
Decision log - Project Management Office - Confluence (atlassian.net)	N/A	N/A
Interface Dashboard – Confluence page	N/A	N/A
BES 2023 Implementation Planning – Confluence page	N/A	N/A
Release 0.11 Integration Testing Defects - Jira (atlassian.net)	N/A	N/A
ExcelAnalyzerScorecard-BI-5Project Schedule-BES2023 Primary-2023-05-02 08-44-16Z.xlsx	5/3/2023	N/A
ExcelAnalyzerScorecard-BI-5Project Schedule-BES2023 Primary-2023-05-17 09-01-08Z.xlsx	5/17/2023	N/A
ExcelAnalyzerScorecard-BI-5Project Schedule-BES2023 Primary-2023-05-25 09-20-11Z.xlsx	5/25/2023	N/A
ExcelAnalyzerScorecard-BI-5Project Schedule-BES2023 Primary-2023-05-31 08-55-49Z.xlsx	5/31/2023	N/A



Meetings and/or Sessions Attended/Observed:




1. IV&V Team Meeting – 5/1/2023, 5/4/2023, 5/8/2023, 5/15/2023, 5/18/2023, 5/22/2023, 5/25/2023, 5/30/2023
2. IV&V April 2023 Pre-Draft MSR Findings Review – 5/2/2023
3. HI DHS BES April Draft IV&V Report Review – 5/11/2023
4. IV&V May Findings Roast – 6/1/2023
5. PMO End of Day Huddle – 5/2/2023, 5/4/2023, 5/9/2023, 5/11/2023, 5/16/2023, 5/18/2023, 5/23/2023, 5/25/2023,
6. Bi-Weekly DHS and IV&V Touch Base – 5/2/2023, 5/19/2023
7. Weekly BES Infrastructure meeting – 5/5/2023, 5/12/2023, 5/19/2023, 5/25/2023
8. DHS/IV&V Check-in – 05/11/2023, 5/25/2023
9. Bi-Weekly Client BES 2023 Project Status Meeting – 5/3/2023, 5/17/2023, 5/31/2023
10. Security Touchpoint – 5/24/2023, 5/31/2023
11. (External) BES 2023 Jira Overview – 5/4/2023
12. (External) BES System Security Plan - Controls Implementation Discussion– 5/2/2023, 5/16/2023
13. (External) UI Standards Monthly Review – 5/3/2023
14. (External) Readiness and OCM General Meeting – 5/3/2023, 5/17/2023, 5/31/2023
15. (External - Sprint Demo) Epic 110: Alerts and Special Indicators – 5/10/2023
16. [External] Bi-weekly BES CCB Meeting – 5/10/2023, 5/24/2023
17. (External- Demo) Epic 113 Sprint 7 – 5/11/2023
18. (External) UAT Test Team Huddle – 5/11/2023, 5/18/2023
19. (External-Pre-Design) Epic 240: Revising the Notice of Overpayment and DHS 1029, Reviewing FM15 Payment Agreements – 5/11/2023
20. (External) DHS New Training Tools – 5/11/2023
21. (External - Sprint Demo) Epic 122 – 5/25/2023
22. (External) Epic Demo for Epic 128 – 5/26/2023
23. (External) UAT Test Team - Working Session – 5/30/2023
24. (External) Sprint Demo for Epic 108 – 5/30/2023
25. (External - Sprint Demo) Epic 207 Interface Framework – 5/30/2023
26. (External) Sprint Demo for Epic 110 Alerts and Special Indicators – 5/31/2023

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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/Concern	Identified Date	Category	Description	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Client Comments	Vendor Comments
81	Gaps in test coverage and slower-than-expected progress in integration testing (IAT) may result in schedule delays if subsequent test phases uncover a higher volume of defects and user feedback than initially anticipated.	Ryan, Ryan	Testing Concern	6/27/2023	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 IAT 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).	Monitor SIT closely for both breadth of depth of testing to ensure the system IAT is adequately tested. Develop and implement strict SIT exit criteria to ensure IAT begins with the best system possible.					Open		
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 relate and correct documentation will be available.	August 1st, when the full draft of the SSP is scheduled for completion.	3	3	Med	Open	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 BAAs lacking the expertise required to create optimal designs and system specifications that developers could consume without requiring extensive clarification from the ASI BAAs team. DHS and IVV observed instances where ASI BAAs/BAAs have presented less than optimal designs and left 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. + ASI effectively track and regularly provide DHS (potentially via the weekly DOI 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. + The ASI should provide DHS with the time needed to effectively evaluate the software demonstrations	Immediate	3	1	Low	Open	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. The ASI intends to mitigate the Release 11 BES SSP development delay risks by deploying a planned late July dot release (Release 11.01) to User Acceptance Testing (UAT) after Release 11. This release will overlap with System Integration Testing and most of UAT but is planned to be tested before UAT ends to avoid impacts to the overall schedule and go-live. 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 delay 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 twenty-six Epics in scope for R0.11. It remains unclear if the project team can complete and demonstrate the remaining twenty-four Epics in the remaining three months of the release. 2/28/2023 - Though the Project transitioned to the new ASI,	
74	A BES Project schedule based on inaccurate estimations diminishes effective planning and resource management, which could result in late deliveries, 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 IVV 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. Confirm current assumption that a delay with the current go-live date will not result in major implications. Add key milestones to the project schedule, such as sprint and epic demos, to show key progress towards completion of Epics. AI 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. (1/28/2023 - completed) CLOSED 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. 4/26/2023 - ASI using tool (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	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 either pushed back or are in development, 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. 4/26/2023 - Late in the month, the 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 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 DOI) to track all the activities in progress, including dev ops tasks. 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 to estimate the remaining work. Therefore, IVV changed the criticality rating from high to medium. 1/31/2023 - The new ASI submitted a draft schedule for review and is receiving comments from stakeholders. The schedule continues to be revised so that it can be approved and baselined. The current proposed go-live date could be delayed if there are substantial adjustments made to address feedback. 12/31/2022 - The Project completed transition activities and is preparing for a Project restart kick-off on January 17th. The new ASI plans to present an updated schedule during the kick-off. However, without prior review from stakeholders, the proposed schedule may cause further questions and discussions which may impact restart activities creating 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 unclear 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 B-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 - 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	
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 remains unclear.	If the level of effort to implement and manage the complexities of the BES infrastructure is not accurately accounted for and staffed by the ASI, the project could be met with unexpected costs and schedule delays. Delays in finalizing the components being implemented could exacerbate this risk and lead to further delays. Complex platforms often present system maintenance and operations challenges as system changes can hold the increased potential for system failure (i.e., due to the significant number of "moving parts") and increase the level of time and effort to resolve infrastructure and application-level bugs. Further, some components remain in an immature state compared to their legacy counterparts. For example, the project recently experienced a system failure because Google Cloud failed to clearly communicate a change that led to failure in another component (i.e., Nexus). Google Cloud is generally viewed as a less mature product offering, compared to their rivals (Amazon Web Services, Microsoft Azure). IVV 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 months 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	2	2	Low	Open		

ID	Title	Reporter	Finding Type	Identified Date	Category	Description	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Initial Update	Client Comments	Vendor Comments
70	Insufficient configuration management could lead to development confusion and reduce the effectiveness of defect resolution	Fors, Michael	Risk	8/23/2021	Configuration and Development	The BI-6 DOI 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 project's 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 source code 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/ASD 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 - AS/ASD adhere to plans for configuration management as documented in BI-6 DOI Plan, Section 5.2 and clarify details and/or any changes with DHS. AS/ASD validate plans for configuration management with DHS and agree on a meaningful set of configuration items or settings they will track. DHS and AS/ASD work to clarify/validate plans for the potential use of configuration management tools, (COMPLETETS) * 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	9/31/2023 - The AS 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. 4/26/2023 - The AS finalized the ServiceNow (SN) modules they will utilize for the project. 3/31/2023 - The AS is currently evaluating which Service Now (SN) modules will be the best fit for the project and for DHS going forward. Details of configuration management and the level of configuration management they intend to perform has yet to be determined. 2/28/2023 - The new AS 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 updates in the reporting period as the work stoppage continues and the new AS/ASD conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - No material updates in the reporting period as the work stoppage continues and the new AS/ASD 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 AS/ASD. IVV will reassess our recommendations for this finding once more is known. 09/29/22 - The AS announced the departure of key resources including their lead CM strategists, which could exacerbate this risk. With the recent work stoppage and planned management, IVV is not aware of the plans to mitigate this risk. 08/30/22 - The AS updated the Configuration Management Plan (CMP) with additional configuration management details. 07/27/22 - DHS has identified technical and functional primary points of contact for AS/ASD to work with for configuration	9/9/2021 - RAP: We look forward to receiving specific inquiries from the IVV team on configuration management and having conversations. We do acknowledge that the plan likely will be updated to reflect the processes in place on the project for configuration management.	
67	The Americans With Disabilities Act (ADA) section 508 compliance has not been installed for the Project, which may cause significant rework.	Tan, Ryan	Finding - Risk	7/22/2021	Testing	While R0.3 and R0.4 reported that Section 508 compliance had been successfully completed the AS confirmed that there is currently no working tool installed and that Section 508 compliance has not been performed. This risk has been discussed with the AS over the past several months, but there have been evidence of results. The AS did state that they are coding to some of the ADA requirements and are using a desk top tool to 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 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 AS 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/), PMS Guidelines from the 901 Handbook, and contractual obligations to adhere to the Section 508 compliance guidelines (https://section508.gov/), there may be a significant amount of rework to the solution.	1/31/2022 - The following recommendations will be evaluated for this finding. - The ADA tool meets contractual and project requirements. - The AS communicates a plan for ADA test execution. - The AS communicates how the tool will be used to report compliance and non-compliance and how non-compliance will be addressed/corrected. - The ADA communicates how and when DHS/IVV will be provided the reports from the ADA tool execution and how to interpret the results. Supersedes 02/30/2022 - The AS should gain DHS' approval on the tool selected after the AS validates it will perform as expected within the BES architecture, meeting all contractual and project requirements. The AS create and communicate the plan for when the ADA compliance tool will be put into action, how the tool will report compliance or non-compliance, how non-compliance will be corrected, and how and when DHS/IVV will be provided the reports from the ADA compliance tool and how to interpret those reports for the code from previous, current and future releases.	As soon as possible	3	3	Med	Open	5/31/2023 - The AS is preparing to assess the BES system using the selected ADA compliance tool and plans to establish the first preliminary results on June 7, 2023. 4/30/2023 - The Project adopted Usability.net to perform ADA compliance testing. In addition, the AS continues to enhance automated compliance testing. 3/31/2023 - The ADA compliance tool currently used within DHS does not work the BES architecture. The AS is evaluating an ADA compliance tool and is working with DHS to validate it will meet requirements. In the interim, the AS implemented automated testing to check for screen reading compatibility. 2/28/2023 - The Project is evaluating different ADA compliance tools. DHS currently uses Site Improbe in other areas and the AS is reviewing its feasibility for this project. The AS requested access to the Site Improbe tool for a Proof of Concept (POC) Additionally, the AS previously evaluated Usability.net and will use it if the Site Improbe 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 updates in the reporting period as the work stoppage continues and the new AS/ASD conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - No material updates in the reporting period as the work stoppage continues and the new AS/ASD conducts restart planning. 10/31/2022 - No work has been performed regarding this finding due to the work stoppage and ongoing transition to the new AS/ASD. IVV will reassess our recommendations for this finding once more is known. 9/30/2022 - DHS issued a work stoppage, and no progress was made to move forward with purchasing the AS recommended ADA compliance tool. 8/30/2022 - No change in status. Waiting on DHS acceptance/approval to move forward with purchase, installation, configuration, and implementation of the AS recommended		
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 determined by the AS - Connectivity is planned to utilize a presently undefined ETS AP 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 (DHS Test, SIT, UAT). Interface planning and execution tasks and activities, including those for interface partners, are neither resident nor managed within the Project Schedule.	DOI project often underestimate the time needed to effectively manage all the tasks and activities to successfully implement data sharing. 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 DOI activities. COMPLETED 10/29 - Identify and document all interface partners' contracts. COMPLETED 3/3/2022 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	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 DOI activities. COMPLETED 10/29 - Identify and document all interface partners' contracts. COMPLETED 3/3/2022 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	05/31/2023 - Interface definitions and partner agreements incomplete for the following interfaces: NDM (National Directory of New Hires) DOI (Department of Justice), DSH (Department of Social and Industrial Relations) HYCF (Hawaii Youth Correctional Facility) DoTA (Department of Taxation) AVS (Asset Verification Services) Hawaii Child Support Enforcement Agency. Completing these open items will support the AS in completing the interface development in Release 12. 04/27/2023 - The AS 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 Department of Health (DOH) vital records data exchange. The AS 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 DOI schedule under Release 12. The AS will assess the IVV recommendations as interface work proceeds. 02/28/2023 - The new AS is reviewing all the BES interfaces and is building a Confluence dashboard to track progress and status of each interface. 01/31/2023 - 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 updates in the reporting period as the work stoppage continues and the new AS/ASD conducted restart planning. IVV will reassess this finding and our associated recommendations once more is known. 11/30/2022 - No material updates in the reporting period as the work stoppage continues and the new AS/ASD 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 AS/ASD. IVV will reassess our recommendations for this finding once more is known. 09/29/22 - No	7/20/21 - RAP - The AS team requests that the IVV reassess the schedule metrics 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 MOA's and contract 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 architectural 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 AS and DHS had not broadly communicated their decision implementing two Sabel instances (one for KOLLA, 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 those 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.	- The AS continue to make updates to the BI-6 System Architecture Deliverable with additional details as they become available and with any finalized architectural changes - DHS should finalize the Portal strategy and implementation details and clearly communicate out to stakeholders and project teams. Complete 3/11 - The Project should continue to vet possible architectural change impacts to the platform (e.g., ADA, Configuration Management tools), and M, D, MGD, and BES systems before finalizing architectural decisions. - DHS continue to request AS/ASD 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 capabilities/features and changes that could impact planning and decisions in each area. - Maintain current communication processes to ensure regular communication between the architecture team and the rest of the project team to assess impacts of architecture decisions to the Project. CLOSD 11/30/2022	ASAP	2	2	Low	Open	5/31/2023 - Met QUEST Division (MQD) leadership expressing there is ambiguity on the 2-portal scope-of-work and features (COLLA) migration with BES). The AS 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 (BES03) collaboration efforts. 4/30/21 - No material updates in the reporting period. 3/31/2023 - The AS 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 AS will go live with their identified 2-portal (BES and KOLLA) strategy but may initially go live with less functionality than originally planned and/or communicated. 2/28/2023 - The AS 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 eSIC. 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 AS is developing a lift and shift of their existing legacy system (HAWM) with little to no improvements (to avoid scope creep) and have labeled it HAWM 2.0. Others seem to think the AS will continue the work of the previous AS that include improvements based on previous AS 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 AS is developing its communication plans so its unknown at this time if their process will improve this issue. IVV notes one specific area that does need additional communication to the project team is the plan and future use of the BES portal. The previous AS had built the bulk of the portal (based on iKefay)	06/30/2020 - Combined application is still planned. App still not finalized by DHS. From Arch perspective, we are building in library. 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. We expect that final decisions will likely be made during this reporting period and communicated to the project. The AS refers the IVV to our February update regarding Recommendation #3. From our perspective all necessary actions are complete. If the IVV does not believe it is Complete we request supporting detail. 4/23/21 rap - The AS and DHS continue to refine the final plan for the two portal project. We expect that final decisions will likely be made during this reporting period and communicated to the project. The AS refers the IVV to our February update regarding Recommendation #3. From our perspective all necessary actions are complete. If the IVV does not believe it is Complete we request supporting detail. 4/23/21 rap - The AS and DHS continue to refine the final plan for the two portal project. We expect that	