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DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | *KA ʻOIHANA LOIHELU A LAWELAWE LAULĀ*

OFFICE OF ENTERPRISE TECHNOLOGY SERVICES | *KEʻENA HOʻOLANA ʻENEHANA*

P.O. BOX 119, HONOLULU, HAWAII 96810-0119

May 15, 2025

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

The Honorable Nadine K. Nakamura
Speaker and Members of the
House of Representatives
Thirty-Third State Legislature
State Capitol, Room 431
Honolulu, Hawaiʻi 96813

Aloha Senate President Kouchi, House Speaker Nakamura, 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,

Christine M. Sakuda
Chief Information Officer
State of Hawaiʻi

Attachments (2)

Hawaii Department of Human Services Systems Modernization Project

Final IV&V Status Report
for Reporting Period: April 1 – 30, 2025

Submitted: May 14, 2025

PUBLIC CONSULTING GROUP

Solutions that Matter

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

PUBLIC CONSULTING GROUP
Solutions that Matter

Executive Summary

Executive Summary

In April, the project team mainly focused on activities and tasks to prepare for the next significant milestone, System Integration Testing (SIT), planned to begin on June 23, 2025. Key project areas with current challenges include:

• Security: The project team is challenged to remediate security findings within the required timeframes; currently, 80 findings are past due. Risks still exist in receiving approval from federal data sources needed for BES. Progress was made regarding the Secure Enclave, leading to the beginning of end-to-end testing activities.

• Requirements Management: The ASI has increased meeting frequency with DHS to more precisely categorize and define all requirements. However, this effort has delayed the development of the accurate and comprehensive Requirements Traceability Matrix (RTM) needed for DHS to validate scope and confirm that all required functionality is available or that appropriate workarounds are identified.

• Testing: While resolving defects from past UAT activities has been challenging, the ASI has revised its testing processes, which may enhance future testing effectiveness and improve reporting.

• Interfaces: Functional and technical testing of interfaces did not progress in the reporting period. Not completing this testing may impact readiness for SIT testing. The project team is working through these issues, and fortunately, none of the key implementation dates have been affected as of the date of this report.

IV&V observed both DHS and the ASI taking actions to limit 'scope creep' on the project during project meetings; DHS verbally communicates that any changes must be driven by existing unmet requirements or adherence to Federal or State policies. Waterfall best practices generally recommend that System Integration Testing (SIT) should only commence once all development work is finished, which will be challenging for the ASI, given the complexity of the BES system and only a one-week gap in the project schedule between development completion and start of SIT. If some components are not ready, the project may need to consider mitigation strategies to prevent any delays to the Pilot start date.

Feb	Mar	Apr	Category	IV&V Observations
H	M	M	Project Management	The ASI reenergized their risk management activities and coordinated several working sessions to discuss concerns on Batch Processing, Data Conversion, and Requirements management.

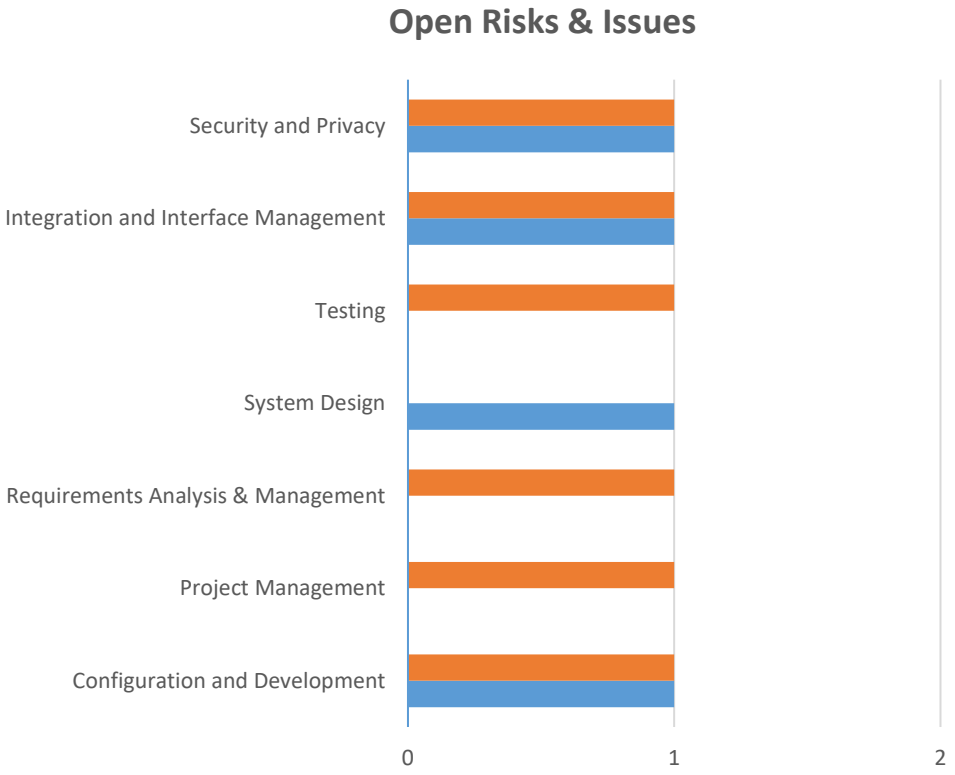
Executive Summary

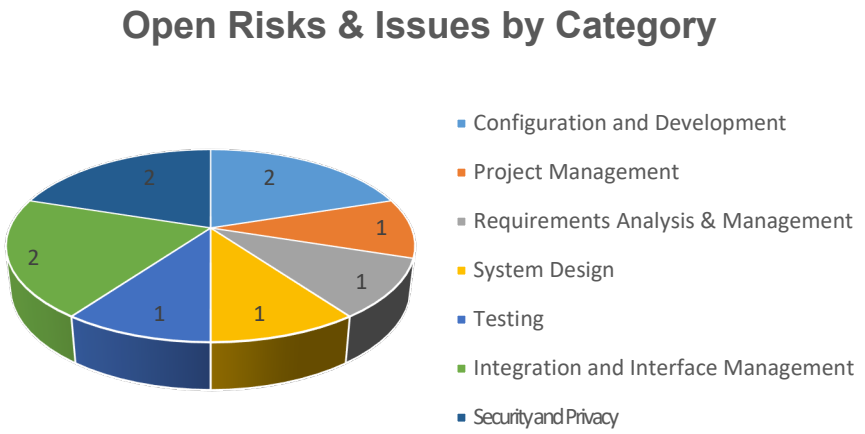
Feb	Mar	Apr	Category	IV&V Observations
L	L	L	System Design	The ASI submitted the BI-10 Functional and System Design and BI-11 Data Integration and Interface Design deliverables to DHS for their review and approval. These are two major and extensive project deliverables for the ASI and DHS to ensure that all design decisions are thoroughly documented
M	M	M	Configuration and Development	The ASI continued to implement changes defined in the process improvement plan, which has a positive impact on application development. the ASI has reported that their code coverage has improved., reflecting more comprehensive unit testing being executed.
L	L	L	Integration and Interface Management	No progress was made during the month to define and execute physical testing of interfaces, which may impact ASI's ability to be ready for SIT testing in June.
M	M	M	Testing	The resolution of defects from the previous UAT cycle remains delayed due to ongoing issues from related defects that hinder test execution. The ASI provided evidence that recommendations from the testing process improvement are being implemented successfully in the testing area.
M	M	M	Security and Privacy	The Project continues to have 80 security findings that have yet to be remediated within the timeframes documented in the security plan. Progress in writing security policies has resulted in several policies going through the review/approval process.
M	M	M	Requirements Analysis & Management	The ASI led several working sessions throughout the month with DHS, FNS and IV&V focused on addressing outstanding requirement updates – which are required to generate an accurate Requirements Traceability Matrix (RTM) report.

IV&V Findings and Recommendations

IV&V Findings and Recommendations

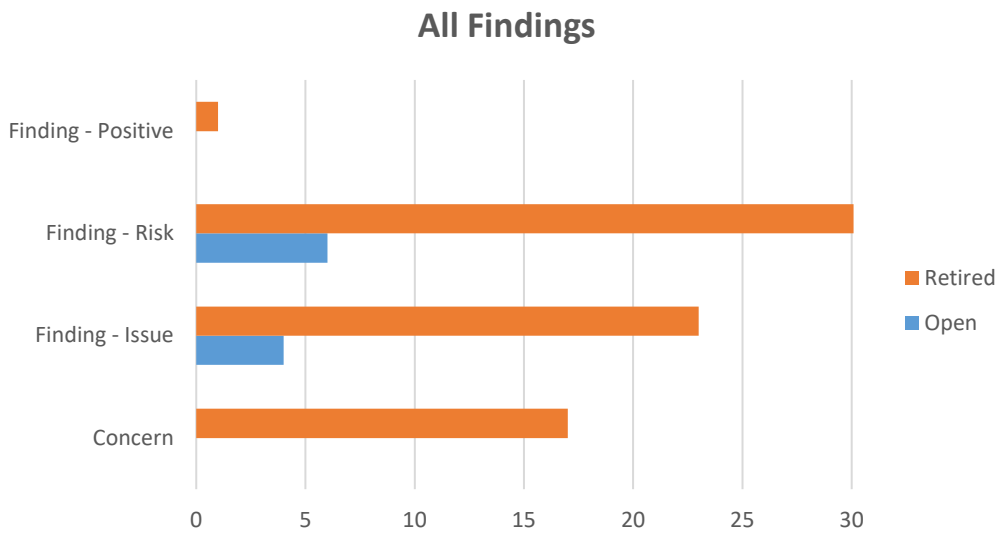
As of the April 2025 reporting period, PCG is tracking 10 open findings (6 risks, 4 issues) and has retired 81 findings. Of the 9 open findings, 6 are Medium, and 4 are Low.





IV&V Findings and Recommendations

The following figure provides a breakdown of the 91 IV&V findings (positive, risks, issues, concerns) by status (open, retired).



IV&V Findings and Recommendations

Findings Opened During the Reporting Period

#	Finding	Category
107	**Med Risk - Delays in getting FNS approval to use the eDRS interface may result in not having this ready for SIT, delaying access to this functionality** **Observation:** Form #674 has not been submitted to FNS for approval, as it remains unsigned and unapproved by DHS as of this reporting period. As a result, the project team has been unable to access eDRS (electronic Disqualified Recipients System) data or perform interface validation. In the legacy HAWI system, this interface enables real-time disqualification checks, which is also required in BES. **Significance:** The eDRS interface identifies individuals disqualified from receiving benefits in other states. Its real-time validation capability is critical for program integrity and eligibility compliance. Continued testing delays undermine BES readiness to meet federal requirements. If Form #674 approval is not obtained soon, the eDRS interface will remain untested during SIT in mid-June. This increases the risk of deploying unverified functionality, potential federal compliance violations, and additional technical debt after go-live.	Integration and Interface Management

IV&V Findings and Recommendations

Findings Retired During the Reporting Period

#	Finding	Category
	None	

IV&V Findings and Recommendations

Preliminary Concerns Investigated and Retired During the Reporting Period

#	Finding	Category
	None	

IV&V Findings and Recommendations

Project Management

#	Key Findings	Criticality Rating
74	**Issue – A BES Project schedule based on inaccurate estimations diminishes effective planning and resource management, which could result in late deliverables, cost increases, and a late go-live.** The BES project schedule continued to remain stable, with minor revisions to tasks. IV&V continues to monitor development tasks on the critical path as the ASI works to mitigate risk for complex functionality, such as client correspondence, that is scheduled to complete one week prior to SIT. Additionally, reporting of risk management was enhanced per the request of DHS.	M

Recommendations	Progress
• Any work required to address findings from Root Cause Analysis should be included in the revised schedule to validate completion for DHS.	In Process
• ASI develop a mitigation plan for minimal amount of slack time between development completion and start of SIT.	In Progress

IV&V Findings and Recommendations

System Design

#	Key Findings	Criticality Rating
73	**Risk – The planned BES infrastructure is complex which could be difficult to implement and maintain and could lead to schedule/cost impacts.** The ASI is reporting they are on schedule to complete the infrastructure activities and tasks.	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

Configuration and Development

#	Key Findings	Criticality Rating
70	**Risk – Insufficient configuration management could lead to development confusion and reduce the effectiveness of defect resolution.** IV&V continues to await receipt of the Configuration Management Plan from the ASI.	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

IV&V Findings and Recommendations

Configuration and Development

#	Key Findings	Criticality Rating
80	**Issue – Development delays have negatively impacted the project schedule and delayed go-live.** The ASI reported they continue to address previous development challenges and improve their development velocity. However, now that the project has switched to a Waterfall methodology, the ASI has limited system demos to just prior to the start of Integration and System Integration Testing (SIT) testing. This can limit visibility into development progress and productivity, potentially leading to unexpected project delays if productivity and system design issues are realized.	M

Recommendations	Progress
• ASI provides 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
• IV&V recommends the project closely monitor progress on the customer correspondence CR and create a mitigation strategy to avoid delays.	In Process

IV&V Findings and Recommendations

Integration and Interface Management

#	Key Findings	Criticality Rating
93	**Risk – Due to the lack of physical and technical (Transport Layer) testing of the interfaces and data transfer failure, conditions may exist with data format, boundaries, and dependencies. These failures may result in intermittent and hard-to-isolate problems or errors.** No additional progress was observed during this reporting period. Last year, technical testing was completed for the seven (7) interfaces planned for BES 1.0. However, test cases and scripts for fourteen (14) additional interface partners need to be developed and executed. IV&V remains concerned that continued delays in addressing these outstanding tests will reduce the time available for resolving defects and operational problems.	L

Recommendations	Progress
• API interfaces should be tested for failure conditions during connection and transfer operations.	In Process
• FTP and file interfaces should be tested for data and file integrity.	In Process
• Test data fields for system impacts resulting from data that is poorly formatted, out of range, or other unexpected data transmission errors.	In Process

IV&V Findings and Recommendations

Testing

#	Key Findings	Criticality Rating
83	**Issue – Gaps in test coverage and slower-than-expected progress in testing may result in schedule delays if subsequent test phases uncover a higher volume of defects and user feedback than initially anticipated.** As of April 29, 2025, some of the defects from the previous testing cycle are being worked on by the ASI, with 162 defects (39 high,87 medium, 36 low) in “Ready for UAT” status (fix complete, not deployed to UAT environment) and 26 defects (13 high, 3 medium, 10 low) “In UAT” status (fix deployed to UAT environment) while 56 defects are in progress. A comparison with last month’s progress reveals the ASI closed eight defects (two high-priority, four medium-priority, and two low-priority). ASI has confirmed that delays in defect resolution is due to blockers and a focus on DDI work. Additionally, INT testing for the following Epics has been completed and are ready for SIT. • Epic 207 - Limit BES Automating Data Population from BES-SSP • Epic 210 – Application • Epic 242 – Eligibility • Epic 264 – Interview • Epic 283 - HYCF/DPS Interface Updates The ASI also provided evidence of process improvements implemented to enhance the upcoming testing cycle. IV&V will continue monitoring ASI’s progress.	M

Recommendations	Progress
• DHS and ASI revisit the testing approach to prioritize completion of remaining test activities and conduct comprehensive System Integration testing (SIT) to minimize defect leakage to User Acceptance Testing (UAT).	In Progress
• ASI assesses the potential impact of the large number of unresolved defects on future development efforts, ensuring a more robust and efficient development process.	In Progress
• ASI develop and implement a revised testing approach to improve the completeness and thoroughness of future testing cycles.	In Progress

IV&V Findings and Recommendations

Security and Privacy

#	Key Findings	Criticality Rating
82	**Issue – The lack of technical documentation may lead to incorrect implementation statements or delay the System Security Plan (SSP).** Throughout April, the ASI security team validated the SSP Control implementation Statements with the DevOps team to ensure that what is documented in the SSP is accurate with the implemented system. The ASI turned over six policies to DHS for approval; two policies have completed peer review, have been updated, and have been sent to QA review. Twelve policies are ready for peer review. DHS and the ASI met on April 28th and developed a plan for the BES system-level policies to be reviewed and approved by the end of the year. Implementing the Secure Enclave progressed as IDCS (Oracle Identity Cloud Service) and Role-Based Access Control roles were completed and tested. Additionally, the audit framework was completed, and the ASI started end-to-end testing.	L

Recommendations	Progress
• Collaborate and communicate with SSP authors about when reliable and correct documentation will be available.	In Process
• Include the Secure Enclave within the work breakdown structure along with the known tasks related to the IRS Assessment to continue receiving FTI in BES.	In Process

IV&V Findings and Recommendations

Security and Privacy

#	Key Findings	Criticality Rating
106	**Risk – Critical and high vulnerability and configuration scan findings are not remediated within the documented timeframes, potentially impacting the project schedule and causing delays.** As of April 28th, BES had 32 critical findings with an open, in progress, or deferred status outside the 15-day remediation timeframe, and two critical findings were within the timeframe. BES had 56 high-rated findings with an open, in progress, or deferred status outside the 30-day remediation timeframe, and 29 high-rated findings were within the timeframe. The ASI has noted that several environments are shut down for cost savings, which will be patched when brought back online. The Plan of Action Milestones (POAMs) remain open until all vulnerable hosts have been remediated. The ASI updated the BES Vulnerability Management Procedures document with the Jira ticketing process and workflow.	M

Recommendations	Progress
• Update the BES Vulnerability Management Procedures document with the Jira ticketing process and workflow from vulnerability and configuration scan remediation with who owns each step.	Completed
• Implement an escalation process to involve senior leadership if deadlines are missed.	In Progress

IV&V Findings and Recommendations

Requirements Analysis & Management

#	Key Findings	Criticality Rating
94	**Risk - The lack of an effective way to validate BES requirements could lead to project delays and unfulfilled user needs if DHS later identifies unmet contractual requirements.** DHS and the ASI continue to identify the details of the content and format of the RTM. Without adequate contract requirement traceability, this could lead to requirements not being fully met, resulting in project delays. During the Bi-Weekly BES CCB meeting on 4/16/25, the ASI provided a walkthrough to DHS and IV&V to show their updated RTM with the simplified view that DHS requested. DHS and ASI identified some key steps to finish the RTM, including agreements on: - obsolete requirements - out of scope requirements - deferred requirements - retraced requirements After these requirements are completed, the focus will be on New Change Requests, Technical Untraced, and Maintenance and Operations (M&O) Application requirements.	M

Recommendations	Progress
• Develop a document that provides DHS with a feasible and effective way to map contract requirements to passed test cases, and, per the BI-19 (Complete and Final Test Plan),"Maps the implementation, functional and technical requirements to the test cases and test scripts".	In Process
• Ensure test scripts thoroughly and comprehensively test the system to assure each requirement has been fully met.	In Process
• Develop a deliverable that provides an audit trail for changes to the requirements from the contract such as obsoleted requirements, when that decision was made, and the change requests.	In Process
• Provide weekly updates about the clean-up efforts in JIRA regarding incorrect statuses of epics, use case, and requirements.	In Process

IV&V Status

IV&V Engagement Status

IV&V Engagement Area	Feb	Mar	Apr	Comments
IV&V Budget				
IV&V Schedule				
IV&V Deliverables				PCG submitted the final March 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 April reporting period:
  - Completed – March Monthly Status Report
  - Ongoing – Review the BES Project Artifacts and Deliverables
  - Ongoing – Attend BES Project meetings, (see Additional Inputs pages for details)
  - Ongoing – Review available ASI contracts and contract amendment documentation
- Planned IV&V activities for the May 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-05 Project Schedule	4/02/2025, 4/10/2025, 4/15/2025, 4/24/2025	N/A
BES 1.0 – BI-10 Functional and System Design	4/16/2025	N/A
BI-02 Project Status Report	4/02/2025, 4/09/2025, 4/16/2025, 4/23/2025	N/A
BES 1.0 – BI-11 Data Integration and Interface Design Deliverable	4/16/2026	N/A

Additional Inputs – Artifacts

Artifact Name	Artifact Date	Version
BES 2023 Design Kanban board	N/A	N/A
FNS Handbook 901	01/2020	V2.4
NIST Special Publication 800-53 Security and Privacy Controls for Information Systems and Organizations	12/20/2020	Rev.5
SNAP_System_Integrity_Review_Tool	Sept 2022	N/A
Interface Dashboard – Confluence page	N/A	N/A
BES 2023 Implementation Planning – Confluence page	N/A	N/A
R0.12 Epic Assignment	N/A	N/A
R0.12 Epic and Sprint Demo Recordings	N/A	N/A
ADA dashboard	N/A	N/A
Jira Requirements Details	N/A	N/A
Jira Testing Lists	N/A	N/A
UAT Testing Dashboard	N/A	N/A
Waterfall Methodology Plan	N/A	N/A

Additional Inputs

Meetings and/or Sessions Attended/Observed:

1. IV&V Team Meeting – 4/3/2025, 4/7/2025, 4/8/2025, 4/14/2025, 4/18/2025, 4/21/2025, 4/28/2025
2. IV&V/ASI March Pre-draft Review – 4/4/2025
3. HI DHS BES March Draft IV&V Report Review – 4/11/2025
4. Bi-Weekly DHS BES PMO/IV&V Check-in – 4/10/2025, 4/25/2025
5. Bi-Weekly DHS and IV&V Touch Base – 4/1/2025, 4/15/2025, 4/29/2025
6. Weekly BES Infrastructure meeting – 4/4/2025, 4/11/2025, 4/25/2025
7. Weekly Client BES 2023 Project Status Meeting – 4/9/2025, 4/23/2025
8. Security Touchpoint – 4/2/2025, 4/9/2025, 4/16/2025, 4/23/2025, 4/30/2025
9. (External) Bi-Weekly Client BES Implementation Schedule Review Meeting –
10. (Externa(l) Weekly Interfaces Touchpoint – 4/7/2025, 4/21/2025, 4/28/2025
11. (External) Bi-weekly BES CCB Meeting – 4/2/2025, 4/16/2025, 4/30/2025
12. eWorld/IV&V Mid-Month Check-in – 4/16/2025
13. (External) Bi-Weekly BES Testing Workgroup Meeting – 4/10/2025, 4/24/2025
14. (External) TOP Reconciliation Reports – 4/21/2025
15. (External) BES Batch Schedule Day 3 – 4/21/2025
16. (External) BES CCB Working Session – 4/28/2025

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
- Data Management and Conversion
- Security and Privacy
- Testing
- OCM and Knowledge Transfer
- Pilot Test Deployment
- Deployment

Ending Slide

Solutions that Matter

ID	Title	Reporter	Finding Type	Identified Date	Category	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Status Update	Client Comments	Vendor Comments
107	Delays in getting FNS approval to use the eDRS interface may result in not having this ready for SIT, delaying access to this functionality	Reynolds, Mark Evan	Finding - Risk	5/7/2025	Integration and Interface Management	Form #674 has not been submitted to FNS for approval, as it remains unsigned and unapproved by DHS as of this reporting period. As a result, the project team has been unable to access eDRS (electronic Disqualified Recipients System) data or perform interface validation. In the legacy HAWI system, this interface enables real-time disqualification checks, which is also required in BES.	The eDRS interface identifies individuals disqualified from receiving benefits in other states. Its real-time validation capability is critical for program integrity and eligibility compliance. Continued testing delays undermine BES readiness to meet federal requirements. If Form #674 approval is not obtained soon, the eDRS interface will remain untested during SIT in mid-June. This increases the risk of deploying unverified functionality, potential federal compliance violations, and additional technical debt after go-live.	1. Escalate Form #674 approval through formal project and executive channels to resolve the delay. 2. Define a deadline for approval in coordination with FNS and document a mitigation strategy, such as simulated data testing, if delays persist. 3. Communicate the dependency's impact on SIT and compliance risk to all key stakeholders.	Now	3	2	Med	Open			
106	Critical and high vulnerability and configuration scan findings are not remediated within the documented timeframes.	Heath, Dustin	Finding - Risk	2/28/2025	Security and Privacy	The BES system does not currently remediate critical vulnerabilities and compliance issues within 15 days, and high vulnerabilities are not remediated within 30 days as required by the BES Vulnerability Management Procedures document.	The BES system faces elevated cybersecurity, operational, financial, and compliance risks if vulnerabilities are not remediated within the required timeframe. Prompt corrective actions are necessary to ensure timely vulnerability resolution and safeguard the BES system environment prior to going live. Un-remediated critical and high Nessus compliance scans can significantly hinder system development efforts by introducing security risks, compliance failures, and operational roadblocks. This lack of remediation of system configuration findings increases technical debt, disrupts development workflows, and diverts resources from core project objectives.	IN PROGRESS Implement an escalation process to involve senior leadership if deadlines are missed. COMPLETE Update the BES Vulnerability Management Procedures document with the Jira ticketing process and workflow from vulnerability and configuration scan remediation with who owns each step. Rate Configuration scan result failures and how they impact the security of the BES system (Critical, High, Medium, and Low) instead of simple pass/failure results. In January 2025, 82 critical and High-finding POAMs were listed due to the Tenable configuration scan results. The POAMs for configuration scans are now listed as "failed"; due to the binary nature of the scan engine and does not rate the criticality of the system configuration on the business operation of how the hosts are used.	30 days prior to the IRS assessment or the next third-party assessment.	3	3	Med	Open	04/30/2025 --As of April 28th, BES had 32 critical findings with an open, in progress, or deferred status outside the 15-day remediation timeframe, and two critical findings were within the timeframe. BES had 56 high-rated findings with an open, in progress, or deferred status outside the 30-day remediation timeframe, and 29 high-rated findings were within the timeframe. The ASI has noted that several environments are shut down for cost savings, which will be patched when brought back online. The Plan of Action Milestones (POAMs) remain open until all vulnerable hosts have been remediated. The ASI updated the BES Vulnerability Management Procedures document with the Jira ticketing process and workflow. 03/31/2025 – The ASI completed the IVV recommendation to rate the criticality of configuration scans and made excellent progress on remediating findings that are rated critical and high. At the time of this writing, BES had 20 critical findings open or in progress outside the 15-day remediation timeframe, and one critical finding was within the timeframe. BES had 22 high rated findings open or in progress outside the 30-day remediation timeframe, and five high rated findings were within the timeframe. It should be noted that remediation on some single POAM items in the list may require patching or configuration changes on multiple hosts (from development environments to production environments) and are listed as in progress while these changes are being applied across multiple hosts.		
94	The lack of an effective way to validate BES requirements could lead to project delays and unfulfilled user needs if DHS later identifies unmet contractual requirements.	Morrill, Scott	Finding - Risk	4/25/2024	Requirements Analysis & Management	The Requirements Traceability Matrix (RTM) (BI-21) plays a vital role in ensuring the system's compliance with contractual commitments by associating each requirement with passed test case(s). However, the approved project schedule shows the RTM completed on 6/26/24, which falls after the Core SIT exit decision on 5/10/24. The ASI provided the BI-22a System Integrity Review Tool (SIRT) to DHS on April 26, 2024, but withdrew the deliverable due to DHS concerns. This BI-22a deliverable may help DHS validate requirements.	It is unclear to DHS and IVV how the ASI will trace requirement coverage for SIT completion. DHS may be unable to make an informed decision on SIT exit criteria. This could lead to DHS starting Final Acceptance Testing (FAT) and then realizing that not all requirements have been fully met, resulting in delays.	IN PROGRESS • Develop a document that provides DHS with a feasible and effective way to map contract requirements to passed test cases, and, per the BI-19 (Complete and Final Test Plan),"Maps the implementation, functional and technical requirements to the test cases and test scripts". • Ensure test scripts thoroughly and comprehensively test the system to assure each requirement has been fully met. • Develop a deliverable that provides an audit trail for changes to the requirements from the contract such as obsoleted requirements, when that decision was made, and the change requests. • Provide weekly updates about the clean-up efforts in JIRA regarding incorrect statuses of epics, use case, and requirements. • Create a detailed plan outlining the timeline for completing the clean-up efforts for the requirements and describe the metrics that will be used to evaluate the final outcome.	5/10/2024	3	3	Med	Open	4/28/25 - DHS and the ASI continue to identify the details of the content and format of the RTM. Without adequate contract requirement traceability, this could lead to requirements not being fully met, resulting in project delays. During the Bi-Weekly BES CCB meeting on 4/16/25, the ASI provided a walkthrough to DHS and IVV to show their updated RTM with the simplified view that DHS requested. DHS and ASI identified some key steps to finish the RTM, including agreements on: - obsolete requirements - out of scope requirements - deferred requirements - retraced requirements After these requirements are completed, the focus will be on New Change Requests, Technical Untraced, and Maintenance and Operations (M&O) Application requirements. 3/26/25 - The ASI hosted a Requirements Traceability Matrix (RTM) report walkthrough meeting on 3/21/25 with DHS and IVV to provide updates on the creation of their report. This report was for functional requirements only. ASI stated they would work on producing an RTM that will provide DHS the traceability of each contract requirement (Functional, Technical and other) through testing and vice-versa. 2/26/2025 - The ASI continues to work on delivering an RTM that DHS can use. The key outstanding items from the Mid-Month project team meeting on 2/20/25 between ASI and IVV include Use Cases and Requirements in Jira need to be updated as they have the incorrect status. There are Use Cases in Jira which have been obsoleted but still have active requirements that need to be updated. There are Epics in Jira which are completed but need to be updated to the correct status. The ASI stated fixing these key outstanding items will them to produce a comprehensive and usable RTM. 1/31/2025 - At the CCB meeting on 1/21/2025, the ASI shared their progress on addressing issues with the functional requirements in Jira. This effort is a pre-requisite to providing a comprehensive and accurate set of Requirements Traceability Matrix (RTM) reports. The ASI plans to review the		9/9/2024 Include information on interim version provided prior to FAT. 7/12/2024 I'm not sure if this is worth noting but eWorldES did deliver an "interim" BI-21 RTM to satisfy the requirement criteria for entering into BES 1.0 FAT. 06/14/2024 The BI-21 RTM deliverable has been reviewed and discussed multiple times at the bi-weekly CCB meeting. Draft reports of the BI-21
93	Due to the lack of physical and technical testing of the interfaces and data transfer failure, conditions may exist with data format, boundaries, and dependencies. These failures may result in intermittent and hard-to-isolate problems or errors	Reynolds, Mark Evan	Finding - Risk	4/29/2024	Integration and Interface Management	Aside from the functional testing accomplished during epic testing, specific data flow testing is usually part of an interface definition.	This testing is essential before initial deployment to prevent unexpected and difficult-to-resolve issues, such as scrambled or missing data – or the system may have a fault or exception. Since the Project has not established and tested the fault scenarios, we do not know how the system may react.	In Process * API interfaces should be tested for failure conditions during connection and transfer operations. * FTP and file interfaces should be tested for data and file integrity. * Test data fields for system impacts resulting from data that is poorly formatted, out of range, or other unexpected data transmission errors. Removed * [Not applicable—No transactional interfaces, therefore no race conditions] API interfaces do not require race condition testing. * [Redundant with other recommendations] Testing for format, length, and other physical formatting errors in interface records and files is covered under existing test cases.	2024 2nd Qtr	3	2	Low	Open	4/30/2025 - No additional progress was observed during this reporting period. Last year, technical testing was completed for the seven (7) interfaces planned for BES 1.0. However, test cases and scripts for fourteen (14) additional interface partners need to be developed and executed. IVV remains concerned that continued delays in addressing these outstanding tests will reduce the time available for resolving defects and operational problems. 3/31/2025 - The technical testing subtests have begun to be written. Each interface will have a script to test failure conditions such as malformed fields and files. 2/26/2025—The remaining interface test scripts are being prepared to ensure comprehensive testing of all interfaces, including the retesting of previously performed tests to validate accuracy and maintain up-to-date results. 1/30/2025—Interface technical testing will occur during SIT and UAT, depending on the interface partner's resource availability. Interfaces requiring technical testing during this project phase are EDRS, HYCF, DOH, DPS, PARIS, BEER, IRS, IVR, HANA, DoTax, FNS, ACF, ECF, and EDM. IVV will continue to monitor them. 12/31/2024—The initial set of testing was successful. Test planning and execution for the other interfaces should be integrated into the recast schedule discussions. Successful results, including graceful rejection of invalid interface data (such as misnamed SFTP files or short fields/truncated files), are recommended prior to commencement of SIT testing. 10/31/2024—This finding will be reevaluated by the IVV team after the project team completes the replanning and determines the approach, requirements/functionality, and schedule for the Pilot and Statewide rollout. 09/30/2024—The 7 interfaces used in the planned Pilot release, BES1.0, have been completed. However, the other 12 releases required for the statewide release, BES1.1, will be required with the revised approach to merge. This finding is being kept open at a low priority until all 19 interfaces are completed. 08/22/2024—All		06/14/2024 As mentioned at the May pre-meet, a technical Interface team plan does exist to address PCG's recommendations for this finding.5/11/2024 As mentioned at the pre-meet, a technical Interface team plan does exist to address PCG's recommendations for this finding.
83	Gaps in test coverage and slower-than-expected progress in testing may result in schedule delays if subsequent test phases uncover a higher volume of defects and user feedback than initially anticipated.	Kalsi, Neetu	Finding - Issue	6/2/2023	Testing	After examining the Project's R11 QA Dashboards, R11 Traceability Dashboards, and Test Repository, gaps in testing coverage may exist and the progress of testing might be lagging. Concerning testing coverage, it appears that not all epics and use cases in R11 have associated test cases or are testing the correct use cases. In terms of progress, some test cases remain unexecuted, and not all defects have been resolved as the project commences 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 - DHS and ASI revisit the testing approach to prioritize completion of remaining test activities and conduct comprehensive System Integration testing (SIT) to minimize defect leakage to User Acceptance Testing (UAT). - ASI assesses the potential impact of the large number of unresolved defects on future development efforts, ensuring a more robust and efficient development process - ASI develop and implement a revised testing approach to improve the completeness and thoroughness of future testing cycles. CLOSED - The ASI should determine the root cause of the failure to identify simple defects in INT and SIT and implement effective improvement processes to confirm early testing is adequate before entering UAT/FAT (Closed 4/30/2024) - DHS and ASI monitor INT/ST closely for both breadth and depth of testing to ensure the system is adequately tested (Closed 10/30/2024) - ASI utilize the two-week FAT testing pause to address and resolve outstanding SIT defects and apply the fixes in the FAT environment, ensuring that these defects do not recur when FAT resumes, optimizing testing efficiency and reducing potential defect rediscovery. (Closed 10/30/2024) NOT COMPLETED - The Project team reviews the SIT exit criteria and revises them as needed to ensure UAT/FAT begins with the best system possible. (3/31/2024) - DHS should request that the ASI develop a Corrective Action Plan to address the failure of prior test phases (Unit, INT) to capture defects that rolled into SIT (09/26/2024)	UAT	4	4	Med	Open	4/28/2025- As of April 29, 2025, some of the defects from the previous testing cycle are being worked on by the ASI, with 162 defects (39 high,87 medium, 36 low) in "Ready for UAT" status (fix complete, not deployed to UAT environment) and 26 defects (13 high, 3 medium, 10 low) "In UAT" status (fix deployed to UAT environment) while 56 defects are in progress. A comparison with last month's progress reveals the ASI closed eight defects (two high-priority, four medium-priority, and two low-priority). ASI has confirmed that delays in defect resolution is due to blockers and a focus on DDI work. Additionally, INT testing for the following Epics has been completed and are ready for SIT. Epic 207 - Limit BES Automating Data Population from BES-SSP Epic 210 – Application Epic 242 – Eligibility Epic 264 – Interview Epic 283 - HYCF/DPS Interface Updates The ASI also provided evidence of process improvements implemented to enhance the upcoming testing cycle. IVV will continue monitoring ASI's progress. 3/26/2025- As of March 26th, the ASI is addressing previous testing cycle defects, with 154 defects (37 high, 83 medium, 34 low) in "Ready for UAT" (fix complete, not deployed to UAT environment) status and 26 defects (15 high, 3 medium, 8 low) "In UAT" (fix deployed to UAT environment) status. A comparison with last month's progress reveals the ASI closed 3 high-priority, 1 medium-priority, and 3 low-priority defects. Unless the ASI's performance increases, this may result in a situation where the defects are not resolved prior to the start of the next testing cycle, continuing this risk to the project. IVV is concerned the pace of defect resolution may delay the next testing cycle and impact the project's go-live date. IVV emphasizes the need for immediate attention to accelerate defect resolution to avoid project delays. Additionally, IVV conducted a sampling of the defects currently in "Ready for UAT" status by reviewing comments and screenshots in Jira. Preliminary findings indicate that the defect's resolution appears		4/11/2025 Per eW Test Lead: What is needed to close the testing risk? Let's discuss at Mid-month. 3/13/2025 Our eWorld Test Lead is inquiring what is needed to close this issue? 2/13/2025 Per Hemant (eW Test Lead): "... there is no change in the testing process for R0.13 as far as waterfall methodology is concerned." We are notplanning to have any phased in functionalities with R0.13.

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
82	The lack of technical documentation may lead to incorrect implementation statements or delay the System Security Plan	Heath, Dustin	Finding - Issue	4/27/2023	Security and Privacy	In April, the ASI/DHS system security plan (SSP) authors began writing implementation statements. Currently, the technical documentation supporting the SSP is unavailable, outdated, or in a draft form. During April, decisions on what tools support the SSP controls are still being decided on. Implementation statements are currently being written from the perspective of how the system should be designed from the SSP author's perspective instead of how the system is actually designed. The SSP authors need to know and use documentation such as System Architecture and Design, network topology, dataflow, ports and protocols, tools used for logging, etc.	Once the system architecture and design have been completed, the SSP authors may need to edit or rewrite implementation statements. A full draft of the SSP is scheduled to be published August 15th , 2023, and the final SSP (ready for federal partner review) is scheduled for September 15, 2023. The SSP is a large technical document with hundreds of controls and control enhancements, and each one requires an implementation statement of how the control or enhancement has been met.	In Progress - Collaborate and communicate with SSP authors about when reliable and correct documentation will be available. - Include the Secure Enclave within the work breakdown structure along with the known tasks related to the IRS Assessment to continue receiving FTI in BES. COMPLETE - Determine when the infrastructure design baseline will be completed. (06/30/2024) - Perform a full review of all draft SSP controls for content and accuracy prior to the start of the Independent Security Controls Assessment of BES and submission of the SSP package to federal regulators. This will allow the SSP authors to update controls with changes from Design through Implementation. (9/26/2024) - Begin monthly Plan of Action and Milestone update meetings between DHS Security and the ASI Security teams to inform each other of progress and updates made against each POAM. (10/31/2024) CLOSED - Moved to Risk #106 IV&V recommends prioritizing the 82 Critical and High finding POAMs as a result of the Tenable Nessus Configuration scans. Implementing the security configurations later in development may cause the system to become unfunctional, and require additional development time to fix.	Prior to the start of the third-party assessment.	2	2	Low	Open	4/30/2025 – Throughout April, the ASI security team validated the SSP Control implementation Statements with the DevOps team to ensure that what is documented in the SSP is accurate with the implemented system. The ASI turned over six policies to DHS for approval; two policies have completed peer review, have been updated, and have been sent to QA review. Twelve policies are ready for peer review. DHS and the ASI met on April 28th and developed a plan for the BES system-level policies to be reviewed and approved by the end of the year. Implementing the Secure Enclave progressed as IDCS (Oracle Identity Cloud Service) and Role-Based Access Control roles were completed and tested. Additionally, the audit framework was completed, and the ASI started end-to-end testing. 3/31/2025— Last month, IVV reported that the ASI has dropped MongoDB from the Secure Enclave after evaluating IRS Publication 1075-compliant alternatives and is converting to Google Firestore. However, the ASI has also replaced IBM Filenet in the Secure Enclave with Google Firestore. The ASI and DHS have continued working on the NIST 800-53R5 Security Policies. In addition to the 6 policies the ASI had submitted to DHS and received feedback 14 other policies were updated based on the feedback and are currently waiting internal review prior to submission to DHS. DHS has a Safeguard Security Report (SSR) due to the IRS at the end of April. The policies that are being written for the BES System need to be reviewed and approved by DHS and the process for system level policies is being worked on by DHS. However, it does not appear the newly written policies will be approved prior to the IRS SSR submission 2/28/2025—The ASI and DHS have been collaboratively working on the NIST 800-53R5 Security Policies per the NIST 800-53R5 control family that will be used for the BES System. Drafts for each policy have been created, with 12 ready for internal review. DHS has reviewed several of the policies and provided additional instruction		5/13/2025 The lack of technical documentation may lead to incorrect implementation statements or delay the System Security Plan (SSP). It would help to clarify the specific documentation that is expected to satisfy this finding. Currently, we have compiled all available documents except for the Secure Enclave design details, which is still under construction. We will include those once finalized.Our position is that the SSP is a living document and will be regularly updated based on 1)
80	Development delays have negatively impacted the project schedule and delayed go-live.	Fors, Michael	Finding - Issue	6/30/2022	Configuration and Development	ASI had previously reported development activities have been slowed as they have been unable to achieve and/or maintain their expected development velocity. Previously, the development team was challenged with accurately estimating development task-level of effort (i.e., story points) and the project has been challenged with producing a project schedule that accurately reflects realistic timelines (see Finding #74). The ASI continues to be challenged with finding qualified resources in a timely manner.	If the ASI is unable to achieve a velocity that enables them to meet planned milestones, schedule delays may lead to a delayed system go-live date. Failure to achieve a level of accuracy in estimating development tasks could lead to a project schedule that is flawed and unrealistic. Previously, DHS had indicated, and IVV agreed, that some of these delays were due to some ASI BAs lacking the expertise required to create optimal designs and system specifications that developers could consume without requiring extensive clarification from the ASI BA/SA team. DHS and IVV observed instances where ASI BAs/SAs have presented less than optimal designs and left it to DHS (who may lack software or UI design expertise) to improve, which has contributed to unproductive design sessions (see Finding #61). It remains unclear if scope creep has contributed to these delays.	OPEN • ASI provides DHS with the time needed to effectively evaluate the software demonstrations (demos) and elicit productive design discussions with DHS attendees during each demo. • The project closely monitor progress on development efforts that are complex and/or require a substantial level of effort and create a mitigation strategy to avoid delays. COMPLETE CLOSED • ASI regularly report metrics that accurately track the total amount of remaining work to reach go-live and present a dynamic burndown chart to clearly display progress to stakeholders. (closed 3/31/2025) • 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 (closed 2/28/2025) • 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 reviews the development process and identifies and mitigates the challenges preventing them from incorporating Epic demo activities into the project schedule. (9/29/23 - ASI will not be doing this, with DHS approval) • ASI consider taking steps to increase code quality, including enhancing the depth of developer unit testing, tracking and proactively preventing leakage, and enforcing effective coding standards and good governance. • The ASI should consider enhancing the depth of developer unit testing.	Immediate	3	3	Med	Open	4/30/2025 - The ASI reported they continue to address previous development challenges and improve their development velocity. However, now that the project has switched to a Waterfall methodology, the ASI has limited system demos to just prior to the start of Integration and System Integration Testing (SIT) testing. This can limit visibility into development progress and productivity, potentially leading to unexpected project delays if productivity and system design issues are realized. 3/31/2025 - The ASI completed the JAD sessions for the BES Pilot. The Change Request (CR) for customer correspondence functionality was identified as requiring substantial effort and is scheduled for completion by the end of the development phase. IVV continues to express concern that, based on past performance, any disruptions affecting correspondence may leave the project with minimal time to respond without extending the pilot go-live date. 2/28/2025 - The ASI recently submitted an Improvement Plan to DHS that included improvements to address their software development challenges. They have reported ongoing improvements because of their reorganization of the development team, implementing more rigorous software development and release practices, thorough unit testing and peer reviews, and the addition of senior skilled resources. 1/31/2025 - The ASI conducted a project restart kickoff on 1/23/2025 where they intend to implement several development (and other) process improvements to increase the quality and efficiency of development. Key issues they intend to address include development quality, testing quality, and accumulated technical debt. Mitigation strategies include implementing switching development methodologies from agile to waterfall, improving development discipline and structure, increasing the comprehensiveness of testing, and bolstering their domain knowledge by onboarding additional subject matter experts. 12/31/2024 - The ASI continues to make efforts to enhance		5/13/2025 We don't believe this issue "Development delays.." is still an issue and is a carry-over. As previously mentioned, eWorld plans on conducting numerous demos despite employing the waterfall methodology. We stated, and as documented on the project schedule, we will be conducting an INT demo and SIT demo to DHS/stakeholders. In addition, we have a demo to FNS on the project schedule as well.It would be great if this information is included in your status reporting.
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 - Any work required to address findings from Root Cause Analysis should be included in the revised schedule to validate completion for DHS. - ASI develop a mitigation plan for lack of slack time between development completion and start of SIT. COMPLETE - Elaborate the schedule to include the detailed work and tasks required behind milestones, allowing better tracking and visibility of possible issues and delays at the task level. - Monitor, evaluate and revise scheduling estimates for accuracy based on the project teams past performance and resources available to do the remaining work. (3/31/2025) - ASI conduct a Root Cause Analysis (RCA) with DHS and IVV to determine why the BES project continues to experience schedule delays. - ASI Project Management works with the development teams to evaluate the accuracy of development velocity and adjust accordingly to reduce risk in the revised BES project schedule. •ASI provides Burndown charts that provide visibility into the remaining work. - ASI provide details on how Velocity measures were used to calculate the remaining development work. -ASI conduct a Root Cause Analysis (RCA) with DHS and IVV to determine why the BES project continues to experience schedule delays. DHS and the ASI agree to a revised schedule against which project deliverables can be managed. (2/28/2023 - complete) ASI host a weekly meeting with DHS and IVV to review all changes to the project schedules (Primary and DDI). (8/31/2023-complete) CLOSED ASI plan and execute Epic development so that Epic demos can occur earlier in the release schedule and allow time for possible revisions. (12/31/2023 No done) As requested by DHS, add key milestones to the project schedule, such as Sprint and Epic demos, to show key progress towards completion of Epics. (9/29/23 ASI says that they will not do this.) 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	Immediate	3	3	Med	Open	4/30/2025 - The BES project schedule continued to remain stable, with minor revisions to tasks. IVV continues to monitor development tasks on the critical path as the ASI works to mitigate risk for complex functionality, such as client correspondence, that is scheduled to complete one week prior to SIT. Additionally, reporting of risk management was enhanced per the request of DHS. 3/31/2025 - The BES project schedule was relatively stable this month (minor changes were made), with a few tasks delayed while others were completed earlier than planned. IV&V is updating the criticality rating from High to Medium. However, we continue to monitor the minimal slack time between the completion of development and the beginning of System Integration Testing. 2/28/2025 - The ASI received final approval from DHS on the revised schedule, which was baselined and shared to project team on 2/12/2025. The first schedule review for the re-baselined schedule was held on 2/26/2025, with several tasks showing a delayed finish date and others with earlier completion dates; with one significant change of 44 days. Although none of these changes directly added risk to the schedule, IV&V remains concerned that underestimated tasks could start to impact the critical path and delay implementation dates. 1/31/2025 - At the end of the month, the ASI was working with all stakeholders to finalize and baseline a new project schedule. The Draft Schedule published by the ASI includes 18 additional months to complete the project. Once the schedule is finalized, IVV will monitor the stability of the schedule - looking for any recurrence of task completion being delayed as observed in prior schedules (potentially putting critical project milestones at risk if significant delays). One key aspect of the revised schedule is the identification of the tasks to implement the actions from the Root Cause Analysis to minimize the risk of another future schedule delay. The ASI did publish a high-level report on the Root Cause Analysis. However, it was not clear how these changes		4/11/2025 Recommendations Section#1 - I recommend this be updated to CompletedAgreed. Updated.#2 - I recommend this be updated to CompletedWhere is this work called out in schedule and approval by DHS?#3 - I recommend this be updated to CompletedAgreed. Updated#4 - I though we discussed changing the "New" to "In Process"?New recommendation this month, so whether started or not it is still called out as New for the reader.
73	The planned BES infrastructure is complex which could be difficult to implement and lead to schedule/cost impacts.	Fors, Michael	Finding - Risk	10/28/2021	System Design	Current ASI infrastructure plans include a significant number of sophisticated components that make up a complex cloud infrastructure. Further, the Project Team has yet to finalize components that will make up the BES infrastructure and the additional costs and time to configure, test, and implement the planned complex environment remain unclear.	If the level of effort to implement and manage the complexities of the BES infrastructure is not accurately accounted for and staffed by the ASI, the project could be met with unexpected costs and schedule delays. Delays in finalizing the components being implemented could exacerbate this risks and lead to further delays. Complex platforms often present system maintenance and operations challenges as system changes can hold the increased potential for system failure (i.e., due to the significant number of "moving parts") and increase the level of time and effort to resolve infrastructure and application-level bugs. Further, some components remain in an immature state compared to their legacy counterparts. For example, the project recently experienced a system failure because Google Cloud failed to clearly communicate a change that led to failure in another component (i.e., Nexus). Google Cloud is generally viewed as a less mature product offering, compared to their rivals (Amazon Web Services, Microsoft Azure). IV&V remains concerned that this could lead to failures at critical points in the project (including post-go live production failures) that could be difficult to resolve and lead to project disruption. If DHS intends to eventually reduce M&O outsourcing costs turning over M&O tasks to State employees, they could face challenges supporting tools they may not be familiar with in a complex infrastructure environment.	• ASI develop a process to closely monitor cloud and other product changes (software updates/new releases), manage changes, and regression test once changes/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	4/30/2025 -The ASI is reporting they are on schedule to complete the infrastructure activities and tasks. However, 3/31/2025 - No material update. 2/28/2025 - The project continues to build out of some infrastructure components for the Secure Enclave. The ASI recently elected to switch from MongoDB to GCP Cloud Firestore (which is already IRS 1075 Assured Workloads compliant) for the Secure Enclave non-relational database component. This to avoid potential project delays. 1/31/2025 - No material update. 12/31/2024 - No material update. 11/30/2024 - This finding will be reevaluated by the IVV team after the project team completes the re-planning and determines the approach, requirements/functionality, and schedule for the Pilot and Statewide rollout. 10/31/24 - This finding will be reevaluated by the IVV team after the project team completes the replanning and determines the approach, requirements/functionality, and schedule for the Pilot and Statewide rollout 9/26/24 - The project continues to make progress on its technical debt (infrastructure activities that were put on hold in order to work on priority items), including improvements to MongoDB, DataDog, and Boomi. The project has initiated the process with Netenrich to convert to the new Google SecOps platform and may add more components/services, including the Consul API Gateway and Private Service Connect. The ASI intends to update the BI-12 before go-live to reflect these changes/additions. 8/22/24 - The ASI continues to make progress in building out the finalized list of infrastructure components into the BES platform. The ASI appears to have a structured approach for building out and testing these components and they have reported success with some disaster recovery (DR) tests. 7/26/24 - No material update for this reporting period. 6/20/24 - No material update for this reporting period. 5/31/24 - It remains unclear how infrastructure complexity will impact DR testing and execution. 4/30/24 - No material update in this reporting period. 3/31/24 -		2/13/2025 Perhaps for the next MSR we should review the outstanding recommendations to ensure progress status is reflected accurately. 11/17/2023 - Again, why is DR being referenced here? Per the current project schedule, the DR plan is scheduled to be submitted at the end of the year. Reminder: Pilot Go-Live is April 2024. 10/31/2023 - Vic - westill do notunderstand why this remains. 10/11/2023

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
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. COMPLETED • DHS and ASI work to clarify/solidify plans for the potential use of configuration management tools. • 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	4/30/2025 -IVV continues to await receipt of the Configuration Management Plan from the ASI. 3/31/2025 - The ASI has reported progress in updating the project Configuration Management Plan (CMP). 2/28/2025 - The ASI has reported progress in constructing their configuration management database within ServiceNow, having recently imported multiple configuration items (CIs). 1/31/2025 - No material update. 12/31/2024 - No material update. 11/30/2024 - This finding will be reevaluated by the IVV team after the project team completes the re-planning and determines the approach, requirements/functionality, and schedule for the Pilot and Statewide rollout. 10/31/24 - This finding will be reevaluated by the IVV team after the project team completes the replanning and determines the approach, requirements/functionality, and schedule for the Pilot and Statewide rollout. 9/26/24 - The ASI had recently stated they plan to update their Configuration Management Plan (CMP) list of configuration items (CIs) and CMP procedures by 9/20/24 but has since experienced some delays in completing these activities. 8/22/24 - IVV has yet to receive a detailed, comprehensive list of configuration items the ASI will be tracking. 7/26/24 - No material update for this reporting period. 6/20/24 - No material update for this reporting period. 5/31/24 - IVV has yet to receive a detailed, comprehensive list of configuration items the ASI will be tracking. 4/30/24 - IVV has yet to receive a detailed, comprehensive list of configuration items the ASI will be tracking. 3/31/24 - Responsibility for the Configuration Management Plan (CMP) reverted to the ASI (previously, the DHS Security Contractor was updating the CMP for related security controls). The ASI is resuming this scope of work at a time when its resources are stretched and may lead to CMP and configuration management quality challenges. 2/29/24 - No material update in this reporting period. 1/23/24 - No material update in the reporting period.		5/6/2025 Work hand in hand with M&O and CMDB work. Good progress being made and everything has been stood up. 9/9/2024 Still in progress. Plan to update Configuration Management Plan list of items. Two documents, management plan (end of week), Configuration Management procedures (more detailed). Working with Mark M on what should be included. Trying to work with folks who really