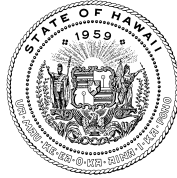


JOSH GREEN, M.D.
GOVERNOR
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STATE OF HAWAII | KA MOKU'ĀINA O HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | KA 'OIHANA LOIHELU A LAWELAWÉ LAULĀ
OFFICE OF ENTERPRISE TECHNOLOGY SERVICES | KE'ENA HO'OLANA 'ENEHANA
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

August 19, 2025

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

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

A handwritten signature in blue ink, appearing to read "CSakuda".

Christine M. Sakuda
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: July 1 – 31, 2025

Submitted: August 15, 2025

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 abstract geometric shapes, including squares and rectangles, some of which are outlined in a lighter blue and others are solid. These shapes are scattered across the page, with a higher concentration on the left side. The text 'Executive Summary' is written in a white, serif font, positioned in the lower-left quadrant of the image.

Executive Summary

Executive Summary





















The BES project was primarily focused on System Integration Testing (SIT) in July, with DHS and the ASI restarting efforts in Organizational Change Management (OCM) and Training. Areas showing positive progress or challenges to the BES project include:

- Requirements Management: Work remains for the ASI to have all requirement information up to date and accurate. Currently DHS does not have clear understanding of what contractual requirements have been implemented and tested. Additionally, DHS will be challenged to get approval from federal partners to start User Acceptance Testing (UAT) without a comprehensive Requirements Traceability Matrix (RTM) for the BES solution.
- Testing: The ASI completed additional SIT End-to-End (E2E) test scripts as requested by DHS, which were reviewed and approved by DHS. Although the rate of defect discovery is outpacing the rate of resolution, the ASI making progress in executing test scripts with approximately 50% of high-severity and high-priority defects being resolved each week.

The project team continues to focus on two key areas: SIT testing/defect resolution and preparing for UAT and BES Pilot. Updating the training material is critical to DHS, incorporating changes to core functionality and new functionality from Change Requests (CRs). Renewed focus on OCM will keep DHS staff informed on the progress and timing of the BES UAT and Pilot – most importantly, DHS employees who will be part of the Pilot rollout.

Executive Summary



May	Jun	Jul	Category	IV&V Observations
			System Design	Communications between the shared platform team and BES infrastructure team show improvement, helping to mitigate risk to the BES project for any future shared services changes.
			Configuration and Development	The volume of defects being found in BES solution during SIT does not appear to reflect improvement in code quality from past release test cycles, which was expected with the process improvement initiative that was implemented for the current release.
			Integration and Interface Management	Development of test scripts for physical and technical testing now has assigned resources, with test execution still needing to be scheduled and completed during the current SIT cycle that concludes in December.
			Testing	DHS approved the final set of 22 end-to-end (E2E) tests for the ongoing SIT. Consistent progress was made in defect resolution, with IV&V monitoring functionality or modules with high defect counts for signs of inadequate test coverage or instability.
			Security and Privacy	At the end of this reporting period, 18 critical findings were in an open state outside the 15-day remediation timeframe, and 3 critical findings were within the timeframe, but the number of vulnerabilities outside these timeframes is trending downwards. The ASI is investigating a Data Loss Prevention (DLP) solution which is required by the Internal Revenue Service.
			Requirements Analysis & Management	Although several working sessions have been held to resolve requirement definitions, work remains to get all requirements up to date to enable DHS to validate all contractual requirements have been included in the BES solution and successfully tested. Requirement validation needs to occur prior to the completion of SIT testing to meet DHS and FNS requirements and obtain approval to start UAT.

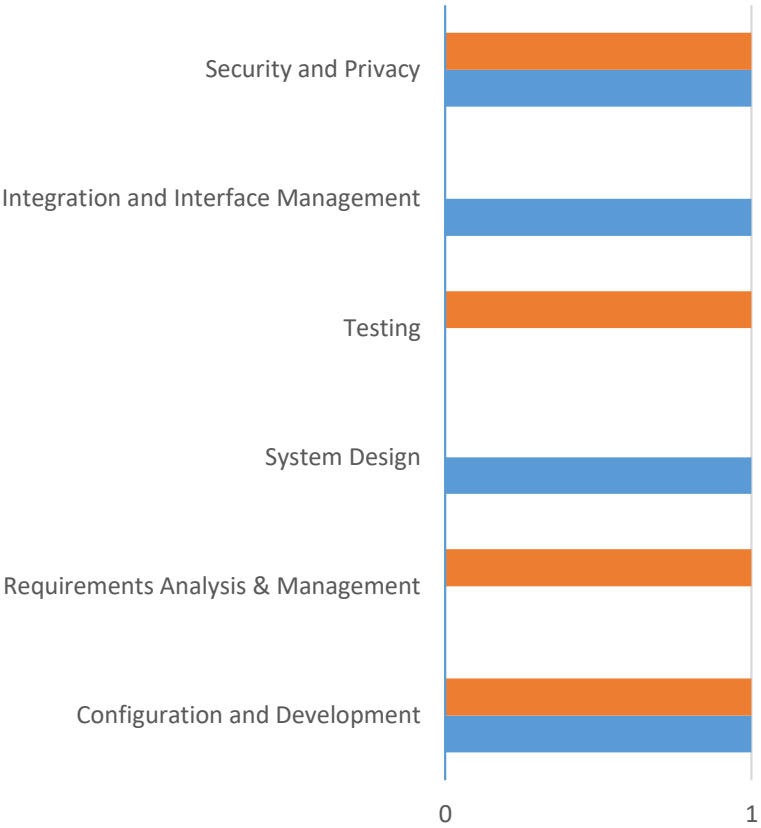
IV&V Findings and Recommendations

IV&V Findings and Recommendations



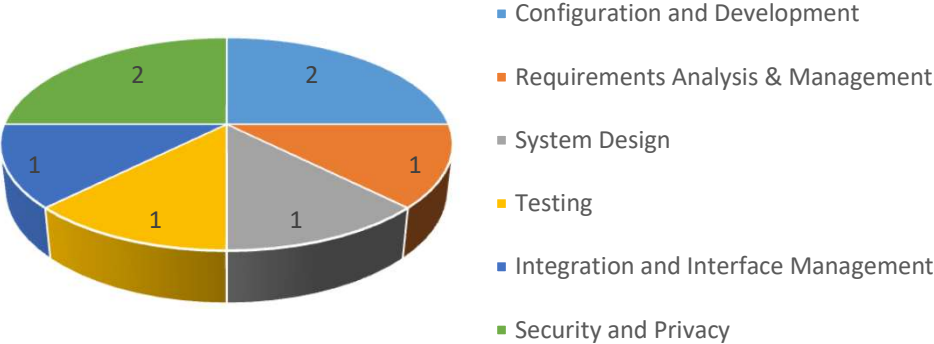
As of the July 2025 reporting period, PCG is tracking 8 open findings (5 risks, 3 issues) and has retired 83 findings. Of the 8 open findings, 4 are Medium, and 4 are Low.

Open Risks & Issues



Open - Med
Open - Low

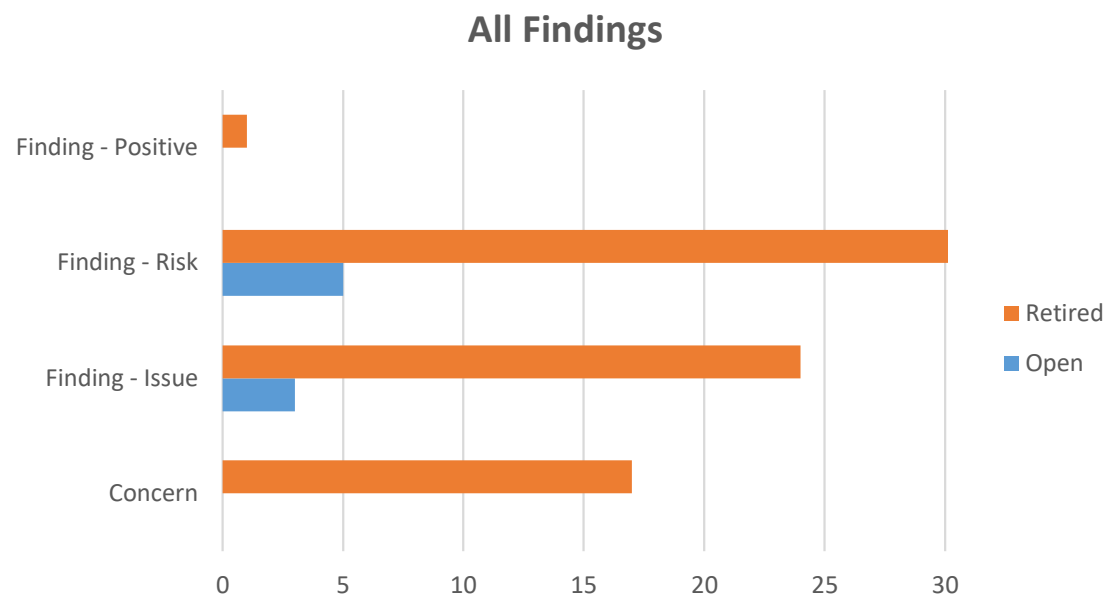
Open Risks & Issues by Category



IV&V Findings and Recommendations



The following figure provides a breakdown of the 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
	None	

IV&V Findings and Recommendations



Findings Retired During the Reporting Period

#	Finding	Category
	None	

IV&V Findings and Recommendations



Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
	None	

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 project appears to be making efforts to improve communications between the shared platform team and the BES project. IV&V remains concerned that changes to the DHS shared services platform could negatively impact the BES project schedule and budget.</p>	A green circle with a white 'L' inside, indicating a low criticality rating.

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



Configuration and Development


#	Key Findings	Criticality Rating
70	Risk – Insufficient configuration management could lead to development confusion and reduce the effectiveness of defect resolution. No material update in this reporting period.	A green circle with a white 'L' inside, indicating a Low Criticality Rating.

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

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 appears to be making good progress with System Integration Testing (SIT). It remains unclear whether development delays will impact the successful completion of SIT..	

Recommendations	Progress
<ul style="list-style-type: none">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
<ul style="list-style-type: none">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	<p>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.</p> <p>The test script development has been assigned to a team. However, ASI attention to SIT defects has prevented significant progress. Testing is still intended to occur during System Integration Testing (SIT), which is currently underway. IV&V reiterates that finalizing and executing interface test scripts during SIT compresses the testing timeline and may limit the opportunity to address defects before UAT.</p>	

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	<p>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.</p> <p>In mid-July, the final set of 22 end-to-end (E2E) tests were approved for the ongoing SIT phase. As these tests were developed after SIT started and diverted ASI testing resources, timely execution will enable prompt detection of critical integration issues, validate system stability, and reinforce stakeholder confidence. Recent trends indicate that while the weekly rate of defect discovery remains higher than the rate of resolution, steady progress is evident, with approximately 50% of high-severity and high priority defects being resolved each week. This pattern is influenced in part by the first full execution of end-to-end SIT, as well as the recent shift from twice weekly to weekly deployments. IV&V will continue to monitor test execution progress and areas with high defect volumes as potential indicators of inadequate test coverage, system instability, or the need for root cause analysis (RCA) activities.</p>	

Recommendations	Progress
<ul style="list-style-type: none">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
<ul style="list-style-type: none">ASI test team provide a visual of progress of test case execution compared to current testing schedule.	New

IV&V Findings and Recommendations



Security and Privacy


#	Key Findings	Criticality Rating
82	<p>Issue – The lack of technical documentation may lead to incorrect implementation statements or delay the System Security Plan (SSP).</p> <p>The ASI continued updating the SSP with information obtained during the SSP Control implementation validation effort completed last month. The ASI also performed Tenable Nessus integration with ServiceNow. The ASI has continued work on the Secure Enclave and has been reviewing options for a Data Loss Prevention (DLP) solution as required by Internal Revenue Service (IRS) Publication 1075.</p>	A green circle with a white 'L' inside, indicating a Low criticality rating.

Recommendations	Progress
<ul style="list-style-type: none">Collaborate and communicate with SSP authors about when reliable and correct documentation will be available.	In Process
<ul style="list-style-type: none">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.	Closed

IV&V Findings and Recommendations



Security and Privacy

#	Key Findings	Criticality Rating
106	<p>Risk – Critical and high vulnerability and configuration scan findings are not remediated within the documented timeframes, potentially impacting the project schedule and causing delays.</p> <p>As of July 31st, 2025, BES had 18 critical findings in an open state outside the 15-day remediation timeframe, and 3 critical findings were within the timeframe. BES had 19 high-rated findings in an open state outside the 30-day remediation timeframe, and 24 high-rated findings were within the timeframe. IV&V notes that this month's number of vulnerabilities outside of the remediation timeframes for the critical and high categories is trending downward and is closer to compliance with the procedures outlined in the BES Vulnerability Management Procedures document.</p>	

Recommendations	Progress
<ul style="list-style-type: none">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	<p>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.</p> <p>DHS and the ASI held three working sessions to jointly review and agree upon the labeling and mapping of the contract requirements. This will help ensure complete and accurate traceability of the contract requirements in the JIRA tool that will be used to generate the Requirements Traceability Matrix (RTM) Deliverable. The Project Team is continuing to review and agree upon the remaining deferred and obsolete contract requirements. A finalized set of requirements must be established to ensure that all necessary BES functionality and supporting components have been developed and will be validated during current and future testing phases. Missed or misunderstood requirements may lead to rework, new development and/or project schedule delays.</p>	

Recommendations	Progress
<ul style="list-style-type: none">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
<ul style="list-style-type: none">Ensure test scripts thoroughly and comprehensively test the system to assure each requirement has been fully met.	In Process
<ul style="list-style-type: none">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
<ul style="list-style-type: none">Provide weekly updates about the clean-up efforts in JIRA regarding incorrect statuses of epics, use case, and requirements.	In Process

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IV&V Status

IV&V Engagement Status



IV&V Engagement Area	May	Jun	Jul	Comments
IV&V Budget				
IV&V Schedule				
IV&V Deliverables				PCG submitted the final June 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 July reporting period:
 - Completed – June 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 August 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	07/02/2025, 07/09/2025, 07/17/2025, 07/22/2025 07/30/2025	N/A
BI-02 Project Status Report	07/02/2025, 07/09/2025, 07/17/2025, 07/22/2025 07/30/2025	N/A

Additional Inputs – Artifacts



Artifact Name	Artifact Date	Version
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
R0.13 SIT Defect Dashboard	N/A	N/A
Interface Dashboard – Confluence page	N/A	N/A
Jira Requirements Details	N/A	N/A
Jira Testing Lists	N/A	N/A
BES R0.13 System Testing Results - CRs and Pending Epics	N/A	N/A
BES R0.13 System Testing Results - Core	N/A	N/A



Meetings and/or Sessions Attended/Observed:




1. IV&V Team Meeting – 7/1/2025, 7/7/2025, 7/14/2025, 7/21/2025, 7/29/2025, 7/30/2025
2. IV&V/ASI June Pre-draft Review – 7/7/2025
3. HI DHS BES June Draft IV&V Report Review – 7/15/2025
4. Bi-Weekly DHS BES PMO/IV&V Check-in – 7/21/2025, 7/31/2025
5. Bi-Weekly DHS and IV&V Touch Base – 7/8/2025
6. Weekly BES Infrastructure meeting – 7/11/2025, 7/18/2025, 7/25/2025
7. Weekly Client BES 2023 Project Status Meeting – 7/2/2025, 7/9/2025, 7/16/2025, 7/23/2025, 7/30/2025
8. Security Touchpoint – 7/2/2025, 7/9/2025, 7/16/2025, 7/30/2025
9. (External) Weekly Interfaces Touchpoint – 7/7/2025, 7/14/2025, 7/22/2025, 7/28/2025
10. (External) Bi-weekly BES CCB Meeting – 7/9/2025
11. (External) BES CCB Working Session #10 – 7/2/2025
12. (External) BES CCB Working Session #12 – 7/16/2025
13. (External) CIA Current Monthly Checkpoint – 7/1/2025
14. (External) BES M&O Working Group – 7/2/2025, 7/9/2025, 7/23/2025
15. (External) Weekly BES Testing Workgroup Meeting – 7/3/2025, 7/10/2025, 7/17/2025, 7/24/2025, 7/31/2025
16. (External) BES Readiness/BI-29 Updates – 7/7/2025
17. eWorld/IV&V Mid-Month Check-in – 7/18/2025
18. (External) BES: FNS Connect – 7/3/2025
19. (External) BES: OCM and Communications – 7/28/2025
20. (External) BES Data Conversion Validation Planning Meeting – 7/29/2025

The background is a solid blue gradient. On the left side, there are several overlapping squares and rectangles of varying sizes and shades of blue. Some are solid, while others are outlined. On the right side, there are more geometric shapes, including a large square with a smaller square inside it, and several smaller squares scattered around. The overall design is minimalist and modern.

Appendices



Appendix A – IV&V Criticality Ratings

Criticality Rating	Definition
	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.
	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.
	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 | • Security and Privacy |
| • Requirements Analysis & Management | • Testing |
| • System Design | • OCM and Knowledge Transfer |
| • Configuration and Development | • Pilot Test Deployment |
| • Integration and Interface Management | • Deployment |
| • Data Management and Conversion | |

Ending Slide



Solutions that Matter

ID	Title	Reporter	Finding Type	Identified Date	Criticality	Description	Cyberphase	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Current Update	Client Comments	Vendor Comments		
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 Procedure 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	7/31/2025 – As of July 31st, 2025, BES had 18 critical findings in an open state outside the 15-day remediation timeframe, and 3 critical findings were within the timeframe. BES had 19 high-rated findings in an open state outside the 30-day remediation timeframe, and 24 high-rated findings were within the timeframe. IV&V notes that this month's number of vulnerabilities outside of the remediation timeframes for the critical and high categories is trending downward and is closer to compliance with the procedures outlined in the BES Vulnerability Management Procedures document. 4/26/2025 – As of June 30th, 2025, BES had 31 critical findings in an open state outside the 15-day remediation timeframe, and eight of the critical findings were within the timeframe. BES had 62 high-rated findings in an open state outside the 30-day remediation timeframe, and four high-rated findings were within the timeframe. As a side note, the ASi had noted that several environments have been shut down for cost savings. Currently, 10 critical POAMs and 33 high-finding POAMs appear on the POAM tracking list that appear to be impacted by the shutdown of several environments. As these systems are not functioning, they pose no risk to the network. 5/29/2025 – As of May 28th, 2025, BES had 30 critical findings in an open state outside the 15-day remediation timeframe, and 12 critical findings were within the timeframe. BES had 53 high-rated findings in an open state outside the 30-day remediation timeframe, and 11 high-rated findings were within the timeframe. As stated last month, the ASi has noted that several environments have been shut down for cost savings. The servers that need patching will be addressed when they are brought back online. The Plan of Actions and Milestones (POAMs) remain open until all vulnerable servers have been remediated. 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 held 53 high-rated findings in an open state outside the 30-day remediation timeframe, and 11 high-rated findings were within the timeframe. BES held 30 critical findings in an open state outside the 15-day remediation timeframe, and 12 critical findings were within the timeframe. This will help ensure complete and accurate traceability of the contract requirements in the JIRA tool that will be used to generate the Requirements Traceability Matrix (RTM) Deliverable. The Project Team documented via Controlled Correspondence the agreement to defer several requirements in the areas of LINEAR, MDM, Appoint, Consent Management and EBT. Meetings will continue to review and agree upon the MGD, KOLIA, Referral Management, Enhancements, Reports, Technical and Implementation contract requirements. An agreed upon set of requirements must be established soon to validate all required BES functionality and other supporting requirements were developed and will be tested in the current and future testing phases. Misused or misunderstood requirements may lead to rework, new development and/or project schedule delays. 6/20/25 – DHS and the ASi held four working sessions to jointly review and agree upon the labeling of the contract requirements. This will help ensure complete and accurate traceability of the contract requirements in the JIRA tool that will be used to generate the Requirements Traceability Matrix (RTM) Deliverable. The Project Team documented via Controlled Correspondence the agreement to defer several requirements in the areas of LINEAR, MDM, Appoint, Consent Management and EBT. Meetings will continue to review and agree upon the MGD, KOLIA, Referral Management, Enhancements, Reports, Technical and Implementation contract requirements. 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IVV reiterates that finalizing and executing interface test scripts during SIT compresses the testing timeline and may limit the opportunity to address defects before UAT. 6/20/2025 – The ASi SIT test team has begun test planning and test script development. Testing is intended to occur during System Integration Testing (SIT), which is already underway. While this represents progress, IVV notes that finalizing and executing interface test scripts during SIT compresses the testing timeline and may limit the opportunity to address defects before UAT. 5/31/2025 - No progress was made during this reporting period. Of the twenty-one interfaces, 7 are reported as complete with 14 outstanding. The ASi plans to create the test scripts in JIRA for the fourteen interface prior to SIT start 16/31/2025). There is little time left to prepare and perform the tests effectively. 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 subjects 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 7/30/25 - In mid July, the final set of 22 end-to-end (E2E) tests were approved for the ongoing SIT phase. As these tests were developed after SIT started and diverted ASi testing resources, timely execution will enable prompt detection of critical integration issues, validate system stability, and reinforce stakeholder confidence. Recent trends indicate that while the close rate of defect discovery remains higher than the rate of resolution, steady progress is evident, with approximately 50% of high severity and high priority defects being resolved each week. This pattern is influenced in part by the first full execution of end-to-end SIT, as well as the recent shift from twice weekly to weekly deployments. IVV will continue to monitor test execution progress and areas with high defect volumes as potential indicators of inadequate test coverage, system instability, or the need for root cause analysis (RCA) activities. 6/30/2025 On June 20, 2025, DHS provided the go decision for RD.13 to move to the SIT phase, which officially began on June 23, 2025. 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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 cases). However, the approved project schedule shows the RTM completed on 5/26/24, 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 obsolete 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 cases, 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	7/30/25 - DHS and the ASi held three working sessions to jointly review and agree upon the labeling and mapping of the contract requirements in the JIRA tool that will be used to generate the Requirements Traceability Matrix (RTM) Deliverable. The Project Team documented via Controlled Correspondence the agreement to defer several requirements in the areas of LINEAR, MDM, Appoint, Consent Management and EBT. Meetings will continue to review and agree upon the MGD, KOLIA, Referral Management, Enhancements, Reports, Technical and Implementation contract requirements. An agreed upon set of requirements must be established soon to validate all required BES functionality and other supporting requirements were developed and will be tested in the current and future testing phases. Misused or misunderstood requirements may lead to rework, new development and/or project schedule delays. 6/20/25 – DHS and the ASi held four working sessions to jointly review and agree upon the labeling of the contract requirements. This will help ensure complete and accurate traceability of the contract requirements in the JIRA tool that will be used to generate the Requirements Traceability Matrix (RTM) Deliverable. 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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 Progress • 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. • Remove * (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	7/30/25 - In mid July, the final set of 22 end-to-end (E2E) tests were approved for the ongoing SIT phase. As these tests were developed after SIT started and diverted ASi testing resources, timely execution will enable prompt detection of critical integration issues, validate system stability, and reinforce stakeholder confidence. Recent trends indicate that while the close rate of defect discovery remains higher than the rate of resolution, steady progress is evident, with approximately 50% of high severity and high priority defects being resolved each week. This pattern is influenced in part by the first full execution of end-to-end SIT, as well as the recent shift from twice weekly to weekly deployments. IVV will continue to monitor test execution progress and areas with high defect volumes as potential indicators of inadequate test coverage, system instability, or the need for root cause analysis (RCA) activities. 6/30/2025 On June 20, 2025, DHS provided the go decision for RD.13 to move to the SIT phase, which officially began on June 23, 2025. A contingency required the ASi to review a subset of DHS-identified defects, and several defects were agreed to be addressed at the beginning of the SIT phase. DHS highlighted gaps in end-to-end coverage within the existing SIT test suite. The ASi and DHS met to discuss the needed E2E test coverage and identified the tests that the ASi will create and end for review to DHS. Ensuring complete coverage and reducing defect leakage risk into UAT remains critical. IV&V is analyzing potential areas where test coverage is needed. 5/29/2025 - As of May 29, 2025, the vendor continues to resolve defects from the previous UAT testing cycle. Below are the status of defects in Ready for UAT, UAT, Rejected, and other statuses (pending resolution). Ready for UAT - 166 defects (40 High, 89 medium, 10 low) In UAT - 26 defects (13 high, 3 medium, 10 low) Rejected - 28 defects (11 high, 16 medium, 1 low) Pending - 24 defects (8 high, 12 medium, 4 low) Looking ahead, System Integration	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 eWorkides 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 CCL meeting. Draft records of the Bi-21.	06/14/2024 As mentioned at the May pre-meet, a technical interface team plan does exist to address PCO's recommendations for this finding 5/11/2024 As mentioned at the pre-meet, a technical interface team plan does exist to address PCO'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.	Ho, Justin	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 test team provide a visual of progress of test case execution compared to current testing schedule. CLOSED - 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. - 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/SIT 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. (8/1/2024) - DHS should request that the ASi develop a Corrective Action Plan to address the failure of prior test phases (UAT, INT) to capture defects that rolled into SIT (09/26/2024)	UAT	4	4	Med	Open	7/30/25 - In mid July, the final set of 22 end-to-end (E2E) tests were approved for the ongoing SIT phase. As these tests were developed after SIT started and diverted ASi testing resources, timely execution will enable prompt detection of critical integration issues, validate system stability, and reinforce stakeholder confidence. Recent trends indicate that while the close rate of defect discovery remains higher than the rate of resolution, steady progress is evident, with approximately 50% of high severity and high priority defects being resolved each week. 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ID	Title	Reporter	Finding Type	Identified Date	Category	Observation	Significance	Recommendation	Event Horizon	Impact	Probability	Analyst Priority	Finding Status	Status Update	Client Comments	Priority	Vendor Comments
62	The lack of technical documentation may lead to incorrect implementation statements or delay the System Security Plan	Fors, Michael	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. CLOSED - Include the Secure Enclave within the work breakdown structure along with the known tasks related to the IRS Assessment to continue receiving TT in BES. 7/31/2025 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 POA.M. (10/12/2024) CLOSED - Moved to Risk 808. IV&V recommends prioritizing the 82 Critical and high finding POA.Ms as a result of the Temable Nexus Configuration management 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	Low	Open	7/31/2025 -The ASI continued updating the SSP with information obtained during the SSP Control implementation validation effort completed last month. The ASI also performed Temable Nexus integration with ServiceNow. The ASI has continued work on the Secure Enclave and has been reviewing options for a Data Loss Prevention (DLP) solution as required by Internal Review Service (IRS) Publication 1075. 6/30/2025 - The ASI completed all draft system-level policies and gave them to DHS. DHS and the ASI are currently progressing using the process created in April to review and prepare the policies for final signature. The ASI Security Team completed the SSP Control Implementation validation with DevOps at the end of June. The ASI will utilize the information gathered during the validation initiative to update the SSP, commencing in July. Additionally, the ASI drafted the Secure Enclave to DHS on June 17th. 5/29/2025 - Throughout May, the ASI's Security Team continued performing SSP Control implementation validation with the DevOps team. They have completed validation against the deployed system for six out of twenty control families. The ASI has submitted fourteen policies to DHS for approval; four policies are currently undergoing peer review within the ASI, and two policies are presently under QA review with the ASI. The Secure Enclave continues to progress as the ASI worked to resolve correspondence issues and completed the implementation of the email microservice, which remains to be tested. The completion of the Secure Enclave will allow the Project to finalize related technical documentation that supports the SSP. 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	7/15/2025 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) newly available			
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 IV&V 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/As team. DHS and IV&V observed instances where ASI BA/As 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 #74). 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 burn-down chart to clearly display progress to stakeholders. (closed 3/31/2025) • ASI effectively track and regularly provide DHS (potentially via the weekly DCI 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, analysts, 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	Med	Open	7/30/2025 - The ASI appears to be making good progress with System Integration Testing (SIT). It remains unclear whether development delays will impact the successful completion of SIT. 6/30/2025 - It remains unclear to IV&V whether there has been meaningful improvement in ASI's code quality. While the ASI stated that unresolved defect counts were low enough to meet the criteria (below 20% of all reported defects) for entering SIT, IV&V raised questions regarding the inclusion of defects that existed prior to SIT that were not analyzed by the end of June. The level of defects could elevate development and system stability risks, which could lead to slowed development and unexpected project delays. 5/31/2025 - DHS stated that the ASI had not accounted for the conversion of data for one legacy system (HARI) for Pilot and the new scope of work will need to be added to the baselined schedule. It remains unclear whether this scope of work will impact the critical path given previous challenges with development velocity. 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 IAD 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. IV&V 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. 7/30/2025 - The project appears to be making efforts to improve communications between the shared platform team and the BES project. IV&V remains concerned that changes to the BES shared services platform could negatively impact the BES project schedule. Governance over the platform has yet to be formalized. The project team has stated concerns about the recent lack of effective communication around the recent changes shared services. 5/31/2025 - The BES system currently relies on services provided by a shared DHS platform. Any changes to these services could increase the complexity of the overall infrastructure and require changes to the BES system, which could negatively impact the BES project schedule. The shared platform vendor has notified the project that they will be replacing both the identity management shared service (IDCS) as well as the postal address verification service (Lognet) which will require BES system changes. It remains unclear whether this will impact the project critical path. 4/30/2025 - The ASI is reporting they are on schedule to complete the infrastructure activities and tasks. 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 is 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 IV&V 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 IV&V team after the project team completes the	7/15/2025 Per our Development Lead: "We had cleared the entire backlog before SIT. We had 50+ defects pending (red/low) when we started SIT and all those defects were raised post 6/1/2025, everything old was completed."			
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 months 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	Low	Open	7/30/2025 - The project appears to be making efforts to improve communications between the shared platform team and the BES project. IV&V remains concerned that changes to the BES shared services platform could negatively impact the BES project schedule. Governance over the platform has yet to be formalized. The project team has stated concerns about the recent lack of effective communication around the recent changes shared services. 5/31/2025 - The BES system currently relies on services provided by a shared DHS platform. Any changes to these services could increase the complexity of the overall infrastructure and require changes to the BES system, which could negatively impact the BES project schedule. The shared platform vendor has notified the project that they will be replacing both the identity management shared service (IDCS) as well as the postal address verification service (Lognet) which will require BES system changes. It remains unclear whether this will impact the project critical path. 4/30/2025 - The ASI is reporting they are on schedule to complete the infrastructure activities and tasks. 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 is 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 IV&V 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 IV&V team after the project team completes the	7/15/2025 Perhaps for the next MSR we should review the outstanding requirements to ensure progress status is reflected accurately.			
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 B-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 B-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 with CMDB. COMPLETED • DHS and ASI work to clarify/justify 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	Low	Open	7/30/2025 - No material update. 4/30/2025 - IV&V 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 IV&V 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 IV&V team after the project team completes the re-planning 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 (CI) and CMP procedures by 9/20/24 but has since experienced some delays in completing these activities. 8/22/24 - IV&V has yet to receive a detailed, comprehensive list of configuration items the ASI will be tracking. 7/26/24 - No material updates for this reporting period. 6/20/24 - No material updates for this reporting period. 5/31/24 - IV&V has yet to receive a detailed, comprehensive list of configuration items the ASI will be tracking. 4/30/24 - IV&V has yet to receive a detailed, comprehensive	7/10/2025 It does not appear our feedback was addressed. We mentioned at our last meeting that configuration management is in place, and we are currently working on leveraging ServiceNow to automate the related processes. So, the statement that configuration management is not in place prior to SIT is not accurate.			
																	5/6/2025 Work had in hand with M&O and CMDB work. Good overall