JOSH GREEN, M.D. GOVERNOR KE KIA'ĀINA



#### STATE OF HAWAI'I | KA MOKU'ĀINA O HAWAI'I DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | KA 'OIHANA LOIHELU A LAWELAWE LAULĀ

OFFICE OF ENTERPRISE TECHNOLOGY SERVICES | KE'ENA HO'OLANA 'ENEHANA

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

March 14, 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 <u>http://ets.hawaii.gov</u> (see "Reports").

Sincerely,

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: February 1 – 28, 2025

Submitted: March 14, 2025



**Solutions that Matter** 

#### **Overview**

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Solutions that Matter

# **Executive Summary**



#### **Executive Summary**



DHS finalized and approved the BES revised project schedule. The Pilot Implementation is planned to start on 7/13/2026, with the Statewide Implementation planned for 10/19/2026. Several months were added to the project schedule to allow the project team to complete development and fully test the BES solution, driving towards delivery of a quality product before starting the Pilot. The ASI also developed and presented an Improvement Plan to DHS to remediate some of the challenges faced by the Project Team. Extending the schedule and implementing actions outlined in the Improvement Plan are positive developments. IV&V maintains cautious optimism, recognizing that the outcomes of some Improvement Plan activities and the accuracy of revised estimates may not manifest in the short term. Key areas of performance that will be continuously reviewed are:

- Testing: The remaining defects raised during User Acceptance Testing (UAT) for BES 1.0 continue to be resolved by the ASI.
- Schedule: The initial review of the revised schedule has identified several tasks with inaccurate estimates, prompting concerns about the overall accuracy of the estimates. IV&V also remains concerned about the schedule's level of detail, which may obscure delays in tasks affecting project critical path.
- Security: Good progress has been made in addressing documentation requirements. However, ongoing delays in remediating security vulnerabilities add risk to the project, potentially impacting development and the overall project schedule.
- Contractual Alignment: The ASI continues to struggle with providing DHS visibility into which contractual requirements have been met by completed functionality and which still need to be developed. The ASI is addressing issues with requirements to enable the creation of a Requirements Traceability Matrix (RTM) to meet this critical need for DHS.
- Legislation: The project team, including IV&V, is monitoring changes at the federal level, including potential changes to the BESSD programs and budget reductions that may impact DHS and the BES project.

The BES Project team has a revised schedule, updated the Software Development Methodology employed from Agile to Waterfall, and made other process improvements. Now, it is a matter of executing the plan to include early risk identification, define and execute mitigation plans, and address issues as they are identified.

Dec	Jan	Feb	Category	IV&V Observations
н	н	н	Project Management	The Project Schedule was approved by DHS and set as the baseline. During the first project review of the schedule, several task's planned complete dates were changed including one task reported to have a 44-day change - raising concerns on the overall stability of the schedule, critical path impacts and estimates of the tasks as the schedule was developed.

HI Systems Modernization Independent Verification & Validation Monthly Report: February 2025

#### **Executive Summary**



Dec	Jan	Feb	Category	IV&V Observations	
		-	System Design	To avoid potential project delays, the ASI switched from MongoDB to GCP Cloud Firestore for the Secure Enclave's non-relational database component, continuing the infrastructure build-out.	
M	M	M	Configuration and Development	The ASI reported progress in constructing their configuration management database within ServiceNow by importing multiple configuration items (CIs). They also submitted an Improvement Plan to DHS, addressing software development challenges through team reorganization, rigorous practices, thorough testing, peer reviews, and adding senior skilled resources.	
L	L	-	Integration and Interface Management	The ASI focused on developing comprehensive test scripts in preparation for interface testing cycles.	
н	M	Z	Testing	As of the February 26th status report, UAT defects are being actively resolved by the vendor, with 147 ready to be retested by DHS. System Integration Testing (SIT) is scheduled to commence in mid-June.	
Е	×	Σ	Security and Privacy	The ASI and DHS are collaboratively working on the NIST 800-53R5 Security Policies for the BES System, with 12 drafts ready for internal review.	
M	M	M	Requirements Analysis & Management	The project team met on 2/20/2025 and identified several action items for the ASI to resolve. Once these actions are complete, DHS and IV&V can evaluate to determine if the RTM can provide its intended purpose of tracing of all contract requirements through final DHS acceptance testing.	

As of the February 2025 reporting period, PCG is tracking 9 open findings (5 risks, 4 issues) and has retired a total of 81 findings. Of the 9 open findings, 1 is High, 5 are Medium, and 3 are Low.





The following figure provides a breakdown of the 90 IV&V findings (positive, risks, issues, concerns) by status (open, retired).





#### Findings Opened During the Reporting Period

#	Finding	Category	
	Medium Risk. Critical and high vulnerability and configuration scan findings are not remediated within the documented timeframes, potentially impacting the project schedule and causing delays.		
	<b>Observation:</b> 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.		
106	<b>Significance:</b> 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.		
Recom	nendations	Progress	
<ul> <li>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.</li> </ul>		ligh, POAMs v listed New	
<ul> <li>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.</li> </ul>		vorkflow New	
<ul> <li>Implement an escalation process to involve senior leadership if deadlines are missed.</li> </ul>			

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Findings Retired During the Reporting Period

#	Finding	Category
	None	



Preliminary Concerns Investigated and Retired During the Reporting Period

#	Finding	Category
	None	

#### **Project Management**

#	Key Findings	Criticality Rating
	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.	
74	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.	Н

Recommendations		Progress
•	Monitor, evaluate and revise scheduling estimates for accuracy based on the project teams past performance and resources available to do the remaining work.	In Process
•	Any work required to address findings from Root Cause Analysis should be included in the revised schedule to validate completion for DHS.	In Process
•	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.	In Process



#### System Design

#	Key Findings	Criticality Rating
	Risk – The planned BES infrastructure is complex which could be difficult to implement and maintain and could lead to schedule/cost impacts.	
73	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.	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

#### **Configuration and Development**

#	Key Findings	Criticality Rating
70	Risk – Insufficient configuration management could lead to development confusion and reduce the effectiveness of defect resolution.The ASI has reported progress in constructing their configuration management database within ServiceNow, having recently imported multiple configuration items (CIs).	L
Re	Recommendations	
•	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.



#### **Configuration and Development**

#	Key Findings	Criticality Rating
	Issue – Development delays have negatively impacted the project schedule and delayed go-live.	
	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	
80	<ul> <li>reorganization of the development team,</li> </ul>	M
	<ul> <li>implementing more rigorous software development and release practices,</li> </ul>	
	<ul> <li>thorough unit testing and peer reviews, and</li> </ul>	
	the addition of senior skilled resources.	

Recommendations		Progress
•	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
•	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
•	ASI regularly reports estimated story points for the total remaining project work to reach go-live and presents a dynamic burn-down chart to track the progress.	In Process



#### 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.	L
	including the retesting of previously performed tests to validate accuracy and maintain up-to-date results.	

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



#### Testing

#	Key Findings	Criticality Rating
	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.	
83	As of the February 26th status report, the vendor is actively resolving UAT defects. Currently, 147 defects (34 high, 82 medium, 31 low) are ready for UAT testing, while 63 defects are in progress. Looking ahead, System Integration testing (SIT) is scheduled to commence in mid-June. Any development delays may delay testing and potentially push back the go-live date, impacting the project schedule.	

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

#### Security and Privacy

#	Key Findings	Criticality Rating
	Issue – The lack of technical documentation may lead to incorrect implementation statements or delay the System Security Plan (SSP).	
82	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 as to how they should be structured. The ASI has dropped MongoDB from the Secure Enclave after evaluating IRS Publication 1075 compliant alternatives and is converting to Google Firestore. Considering that a majority of the documentation and artifacts are completed or nearing completion and the extended schedule, IV&V has changed the criticality of this issue to low.	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



#### **Requirements Analysis & Management**

#	Key Findings	Criticality Rating
	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.	
	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 IV&V include:	
94	<ul> <li>Use Cases and Requirements in Jira need to be updated as they have the incorrect status.</li> </ul>	
	<ul> <li>There are Use Cases in Jira which have been obsoleted but still have active requirements that need to be updated.</li> </ul>	M
	<ul> <li>There are Epics in Jira which are completed but need to be updated to the correct status.</li> </ul>	
	The ASI stated fixing these key outstanding items will them to produce a comprehensive and usable RTM.	

Recommendations	
<ul> <li>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".</li> </ul>	In Process
<ul> <li>Ensure test scripts thoroughly and comprehensively test the system to assure each requirement has been fully met.</li> </ul>	In Process
<ul> <li>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.</li> </ul>	New

#### **IV&V** Status



## IV&V Engagement Status



IV&V Engagement Area	Dec	Jan	Feb	Comments
IV&V Budget	$\bigcirc$		$\bigcirc$	
IV&V Schedule			$\bigcirc$	
IV&V Deliverables			$\bigcirc$	PCG submitted the final January IV&V Monthly Status Report.
IV&V Staffing	$\bigcirc$	$\bigcirc$	$\bigcirc$	
IV&V Scope				



#### **IV&V** Activities



- IV&V activities in the February reporting period:
  - Completed January Monthly Status Report
  - Ongoing Review the BES Project Artifacts and Deliverables
  - Ongoing Attend BES Project meetings, (see <u>Additional Inputs</u> pages for details)
  - Ongoing Review available ASI contracts and contract amendment documentation
- Planned IV&V activities for the March reporting period:
  - Ongoing Observe BES Design and Development sessions as scheduled
  - Ongoing Observe Bi-Weekly Project Status meetings
  - Ongoing Observe Weekly M&O 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	2/12/2025 2/26/2025	N/A
CR2024-019 - BES 1.0 Display Deleted Records History Enhancements	2/21/2025	V0.2
BI-17 Validated Results of Data Conversion Testing	2/25/2025	V0.1
CR2024-024 - BES 1.0 Interview Enhancements	2/25/2025	V0.2
CR2024-025 - BES 1.0 Other Enhancements	2/26/2025	V0.2

### 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

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## **Additional Inputs**



#### **Meetings and/or Sessions Attended/Observed:**

1.IV&V Team Meeting – 2/3/2025, 2/6/2025, 2/10/2025, 2/13/2025, 2/18/2025, 2/20/2025, 2/24/2025, 2/26/2026, 2/27/2025 2.IV&V/ASI January Pre-draft Review – 2/6/2025 3.HI DHS BES January Draft IV&V Report Review - 2/14/2025 4.Bi-Weekly DHS BES PMO/IV&V Check-in – 2/13/2025, 2/28/2025 5.Bi-Weekly DHS and IV&V Touch Base – 2/4/2025 6.Weekly BES Infrastructure meeting – 2/7/2025, 2/14/2025, 2/21/2025, 2/28/2025 7.Weekly Client BES 2023 Project Status Meeting - 2/5/2025, 2/12/2025, 2/26/2025 8.Security Touchpoint - 2/5/2025, 2/12/2025, 2/19/2025, 2/26/2025 9.(External) Bi-Weekly Client BES Implementation Schedule Review Meeting - 2/12/2025, 2/26/2025 10.(Externa(I) Weekly Interfaces Touchpoint – 2/3/2025, 2/102/2025, 2/24/2025 11.(External) Bi-weekly BES CCB Meeting – 2/5/2025, 2/19/2025 14.eWorld/IV&V Mid-Month Check-in – 2/20/2025 15.(External) BES: FNS Connect – 2/6/2025 17.IV&V and DHS PMO Review Findings for December – 2/6/2025 18.(External) JAD Day 3 CR2024-013 DHS Application Packet - Multiple Correspondence - 2/6/2025 19.(External) CR2024-015 Limit BES Automatic Data Population from SSP Response Review Meeting – 2/13/2025 20.(External) BI-05 Project Schedule Response Review Meeting - cont'd – 2/3/2025 21.(External) Pre-Design CR2024-017 Correspondence Enhancements – 2/6/2025 22.(External) JAD CR2024-026 BES-SSP/PAIS Implementation Meeting – 2/19/2025 23.(External) BES Batch Job Schedule Day 2 – 2/24/2025 24.(External) CR2024-014, CR2024-020, CR2024-021 Response Review Meeting – 2/25/2025 25.(External) Final Approval for CR2024-017 BES 1.0 Correspondence Enhancements – 2/27/2025

# Appendices





## Appendix A – IV&V Criticality Ratings

Criticality Rating	Definition
Н	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
СММІ	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 <sup>®</sup>	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<sup>®</sup> 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
- System Design
- Configuration and Development
- OCM and Knowledge Transfer
- Pilot Test Deployment
- Integration and Interface Management
- Deployment

Testing

- Data Management and Conversion
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#### Ending Slide



#### **Solutions that Matter**

HI DHS Monthly IV

Status Report	
Final - February 2025	

ID Title	Finding Reporter Type	Identified Date Category	Observation	Significance	Recommendation	Event Horizon Impa	Ana ct Probability Prio	yst Finding rity Status	Status Update Client Comments	Vendor Comments
106 Critical and high vulnerability and configurations can 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 without building compliance issues which is 5 days, and build whereabilities and remediated within 30 days as required by the BS Vulnerability Manageme Procedures document.	The BES system faces elevated operateurity, operational, financial, and compliance risks' full-waterbillities and or insensities within the required timefame. Prompt corrective actions are necessary to some timely under ability residues not a clarguard bet Bots System environment prior to significantly hinder system development efforts by introducing scorify necessary and the system configuration findings increases technical deta clarage development workflows, and diverts resources from core project objectives.	NEW Hate Configuration scan result failures and how the impact the scenario of the BSS strength (rinch, H) (H) schedum, and Looy Initiated of simple party Failure results. In January 2025, 82 critical and High-Brindge And Andreas and High-Brindge Hard Hard Hard Hard Hard Hard Hard Hard	30 days prior to the IRS assessment or the next third- party assessment.	3 3 Mec	Open		
94 The lack of an effective way to validate BE requirements called all to project days and unfulfilled user needs of DKS later identifies users contractual requirements	S Morril, Scott Finding - Rick	4/25/2024 Requirements Management	The Requirements Traceability Metatus (RTM) (Bi-23) piers a vtait role in sumaring the system is compliance with contactal commitments by associating each requirement with pissed test cate(). However, the distance of the system is the state of the system is the system bills after the Core 2 relaticistics of StylA2. The ABP role with the Bi- Bis after the Core 2 relaticistics of StylA2. The ABP role with the Bis distance of the Core 2 relation of the StylA2. The ABP role with the Bis will date requirements.	It is unclear to DHS and VH how the ASI will trace requirement coverage for CFI completion. DFS may be unable to make an informed decision on SFT er criters. This could lead to DHS starting 'Inside Acceptance' Testing (FAT) and the acceptance's and the acceptance's trace to the acceptance's trace (the acceptance's acceptance acceptance) and the acceptance of the acceptance of deflyrs.	IN PROGRESS - Develop a document that provide, DIK with a feasible end (Effective way to may construct requirement) to passed test cases, and, per the bit 3D (Complete and Final Test Pina). Yatep the implementation, the set of the set neuron test scripts incorporation (Set of the set of the set of the set neuron test scripts incorporation) and completeness from the contract such as obsoleted requirements, when that decision was made, and the change requests.	5/10/2024	3 3 Mec	Open	2/24/2025 - The AAS continues to eave on edihering an RM that EM Scan uses. The key outstanding limits from the Met Adv Mont project taken meeting and 22/2025 between 90 and VAW include: Use Carso and Requirements in Adv Adv Adv Adv Adv Adv Adv Adv Adv Adv	9/9/2024 Includes Informations provided prior to FAT 7/12/2024 Fin not sure if this is worth noting but worth noting but worth noting but worth noting but and the sure of but of the sure of but to FAT provide the sure of the sure of the sure of the discussed multiple times at the bi-week Coll meeting. During Coll Sure of the sure of the sure of the sure of the sure of the sure of the sure of the sure of the sure of the discussed multiple times at the bi-week Coll meeting. During Coll Sure of the sure of t
91 Due teh lako of physical and technical texting of the historic or and data strand family and the history of the strand forma. Is boundary, and dependencies. The strand strand strand strand The strand strand strand strand strand hard so isolate problems or errors.	Reynolds, Finding - Mark Evan Risk	4/29/2024 Integration and Interface Management	acide from the functional testing accompliable during epic testing, specific data flow testing is usually part of an interface definition.	This starting is exertful leftore initial deployment to prevent unexpected an effortule to ensole to mixing data — of the system may have a fault or exception. Since the Project has not established and treated the fault scenario, we do not know how the system may react.	In Process <sup>1</sup> API interfaces should be tested for failes conditions during connection and transver prevations. "First data fields for survival- based to data and file integrity." That data fields for survival- ments to a the target of the survival structure of the survival structure to the survival structure of the survival structure of the transactional interfaces. Here fore on race conditions, J API interfaces do not transactional interfaces, there fore on race conditions, J API interfaces do not transactional interfaces. Here fore on race conditions, J API interfaces do not transactional interfaces, there fore on race conditions, J API interfaces do not receive and files is covered under existing test cases.	2024 2nd Ctr	3 2 Low	Open	2/24/2005 — The meniating statistics test scrops are being proposed to emure competiments testing and all interfaces, including the retracting of provideous parformed testing and all interfaces. Including the metating of and the structure of the structure of the structure of the structure of provideous parformed testing a train interface (Sec). 12/20/2021 — The interface testing all interfaces and the structure of the structure of the structure of the structure of the structure of and the structure of the structure of the structure of provideous participants and the structure of structure of the structure of the structure of provideous participants and the structure of structure of the structure of structure of the structure of structure of the structure of structure of stru	OUTLANDIA An immediated and the second and second and the second a
83 Gapi het covergend slover-han- expected program. Intellig mit yealth scholale delage if subequett test plans in scholale delage if subequett test plans for the scholar delage if subequett test plans feetback than initially anticipated.	Kaliy, Heetu inding - Isooo e	6/2/2023 Tesing	After examining the Project's R1: DA Dablabards, R11 Traceability Dashbardurs, and Traceability Bashbardurs, and Traceability Concerning taoning converge, Tayaou wisi and the progress of esting might be lagging. Concerning taoning converge, Tayaou Santon Santon, Santon Santon,	identifying defects only a wild for effective testing, as is in none efficient and cost effective to address issues drain by early testing stages. If there is is low argues or incomplete testing in the early stage, and the incomplete testing issues and the early stage of the early stage of the early stage of the early stage of the early than earlieghted progress throughout the project lifecupte increase the risk incomplete testing effort. There early stage, booms as field Acceptance Training (Ar).	OPIN-DIS and AS7 revisit the treating approach to promitine completion of maining test atrachistics and conduct comprehensive System Integration, treating (T1) is minimise advectivation approximation of the treat the treat of the treat o	UAT	4 4 Mec	Open	2/28/2025 4s of the Federaury 2014 (bit Highly 82 mellion), 31 loop are ready for UIT testing, while 81 defects are in progress. Looking shead, are ready for UIT testing, while 81 defects are in progress. Looking shead, are ready for UIT testing, while 81 defects are in progress. Looking shead, and the second shead of the second shead of the second shead defects imperced to the second shead of the second shead of the imperced bits, while the second shead of the second defects imperced to the second shead of the second shead of the imperced bits, while the second shead of the second shead the second shead of the second shead of the second shead of the second shead of the second shead of the second shead of the second shead of the second shead of the second shead the second shead of the second shead of the second shead of the second shead of the second shead of the second shead of the test second shead of the shead shead of the second shead of the shead shead of the second shead the shead shea	3/13/2025 Our eWorld Test Laad in inguring sha boweld to close thi hour? 2/13/2025 Per Hemanic (W) Test non- classing in the classing in the classing in the classing in the classing process for R0.13 at fir at world relian function world with interded of We are enriphened in functionalities with 80.15. 21/21/2024 Pasas reveals the first two reaconshift before as the thousand the thousand the set the thousand the thousand the thousand the thousand the set the thousand the thousand the thousand the set the thousand the thousand the set the thousand the thousand the thousand the thousand the set the thousand the thousand the thousand the thousand the set the thousand the thousand the thousand the thousand the set the thousand the thousand the thousand the thousand the set the thousand the thousand the thousand the thousand the thousand the set the thousand the
12 The lack of technical documentation may lead to incorrect implementation statement or delay the system Security Plan	Headh, Dualin Finding - Na Isoue	4/27/2023 Security and Privacy	In Agri, He ASQDBS system security plan (SDP) authors began writing implementation statements. <i>Lowrenky, the technical documentation</i> supporting the SDP is unavailable, oxidated, et in a soft from. <i>During pathor</i> the statements of the statement of the statement of the statement implementation statements are currently large written from the perspective of how the system should be designed from the SDP author's perspective and statements are currently large written from the statement know and on documentation such as System Architecture and Design, etc. where the spatial statement are protected, tools used for legging, etc.	Once the system architecture and design have been completed, the SSP authors may need to der verweit implementation statements. A Hull dat of the SSP is scheduled to be published August 15th; 2023, and the facts 35 SSP is a large technical accument with household of the SSP and the fact and explore the statement of the software of the statement of the the control or enhancement has been met.	In Program: Collaborate and communicate with SP automa about when trainible and correct concentration will be automatication about when Enclave with the work breakdown structure along with the frame naise the structure of the structure along with the frame naise of the structure and the structure along with the frame naise of the structure and the structure along with the structure naise of the structure and the structure and the structure along with decrement with the struct of the along bases will be completed. ( <i>BCFpC12224</i> ) - Forform a full neisely all along the structure along with a scructure prior the struct of the along bases with the completed of the structure along the structure along with the structure along through implementation ( <i>PCI/S1224</i> ) - regression along the structure through the structure ( <i>PCI/S1224</i> ) - structure and the structure through indiversal structure along with the structure and Millistone update meetings between DHS Socurity and the AS Socurity prioriting the E.D. Critical and High Inding POAMs as a result of the Tenadu in development time to fus.	Priori to the start of the start of the third party assessment.	2 2 Low	Open	2/22/025—The A&B and DHS have been collaboratively working on the NET 600 x185 Security A file and the NES A security a file with and II be used for the ABS System. Guilts for each pairing Jawe been created, with 12 and the ABS System. Guilts for each pairing Jawe been created, with 12 and the ABS System. Guilts for each pairing Jawe been created, with 12 and the ABS System. Guilts for each pairing Jawe been created, with 12 and the ABS System System Jawe Been created and the Jawe Been created has dropped Metglobel From the Secure Enclose after enabled for structure. The KM Phalitation 105 compatibility and the Secure Secure ABS System Jawe Been System and Compatibility and the Secure Secure ABS System Jawe Been System Jawe Been System and Compatibility and the Secure Secure ABS System Jawe Been System and Compatibility and the Secure Secure ABS System Jawe Been System and Compatibility and the Secure Secure ABS System Jawe Been System ABS System Jawe Been System Jawe Been System Jawe Been System ABS System Jawe Been System Jawe Been System Jawe Been System Jawe Been System ABS System Jawe Been System System Ja	J/11/2023 We pointed set in the pointed set of the

sodici at bawyonen continua and robic the differences of defect resolution	21 The provident BE Different Nucleum Konstructures and Nucleum Konstructures and with the independent Providence International Activity of the Internati	74 A (15) Projet installe band of installer 11/12 entification devolute Antony Bandward (16) Projets and projets management, which cold and projets management, which cold not used and projets management (16) Projets and projets	20 Table Section Provide the Section Provide Provide Provide Section Provide Provide Provide Section Provide Prov
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Transmission (2014) Statistical and which converting The Statistical restructure. The Management the rare reduce areas and thereaf provide the proper transmission for an analysis of the statistical and the statistical and the proper transmission and the statistical and the statistical and the statistical and the statistical is in a configuration than along with the statistic regarding the randometer of the configuration them, expering and such transmission analysission of the configuration them, expering and such transmission.	B) The Meet of Meet To Simplement and manage the Gorginations of Meet February and Constraints and The Meet To Meet	<ul> <li>Because for project schedule activities are not accurate that can feed to count activities. These and a prover in fermations where the can test at schedule defines the provide activities, and a prover in fermations where the can test at schedule defines. See 3.2     </li> </ul>	Concrete The AGA is and an adverted when the realist fitters to near fail and microsoft accuracy technical days may lead to identify streng byte effect microsoft accuracy technical days and accuracy technical microsoft accuracy technical days and accuracy technical microsoft accuracy technical days and accuracy microsoft accuracy accuracy microsoft accuracy accuracy microsoft accuracy accuracy microsoft accuracy accuracy microsoft accuracy micros
<ul> <li>In a Cato Princ, Yao and Kang Mangalawa André a Mangalawa Manga</li></ul>	Montevise ja repositor is solution member conduct and and data product compares for an endoal     Programmer are the dilutation and multimeters of the varies system     provinces are the dilutation and multimeters of the varies system     provinces are the dilutation and multimeters of the varies system     provinces are the dilutation and multimeters of the varies system     provinces are the dilutation and multimeters of the varies system     provinces are the dilutation and multimeters of the varies system     provinces are the dilutation and multimeters     provinces are the dilutation and multimeters     and the code diluty province multimeters     and the code diluty province multimeters     and the code diluty province multimeters	Que la Valezia, esta esta relacio challa gui manera fue accurato tanta de harre presenta a su a conse a valeza la conse gui manera que la conse da la conse da la conse conservante da la conservante a conservante a conservante conservante da la conservante a conservante a conservante da la conservante da la conservante da la conservante da conservante da la conservante da la conservante da la conservante da la conservante da la conservante la conservante da conservante la conservante la conservante la conservante	Other Land Starting Additional for the contract manual product in the contract manual product interface and integrating manual manual product interface manual productinterface manual product product interface manual product interf
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9/9/02/3 Suit in express. Fin Configuration	2.112.0231 Menters 50 Min or Constraints c	3 J 11/2/23 The unitad project to the data not received the project to the data not constant to the data not constant to the data not constant to the data not data not not received to data not not not not not data not not not not not data not not not not not data not not not not data not not not not data not	Number         Yeard         Common           211/2020         Periodic         Science         Scienc