DAVID Y. IGE GOVERNOR



OFFICE OF ENTERPRISE TECHNOLOGY SERVICES P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119 Ph: (808) 586-6000 | Fax: (808) 586-1922 ETS:HAWAII.GOV

March 12, 2020

The Honorable Ronald D. Kouchi, President, and Members of The Senate Thirtieth State Legislature Hawaii State Capitol, Room 409 Honolulu, Hawaii 96813 The Honorable Scott K. Saiki, Speaker, and Members of The House of Representatives Thirtieth State Legislature Hawaii State Capitol, Room 431 Honolulu, Hawaii 96813

Dear President Kouchi, Speaker Saiki, and Members of the Legislature:

Pursuant to HRS section 27-43.6, which requires the Chief Information Officer to submit applicable independent verification and validation 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 Hawaii 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,

Douglas Murdock Chief Information Officer State of Hawaiʻi

Attachment (2)



Hawaii Department of Human Services Systems Modernization Project

Final IV&V Status Report for Reporting Period: February 1-29, 2020

Final submitted: March 12, 2020



Solutions that Matter

Overview

- Executive Summary
- IV&V Findings and Recommendations
- <u>IV&V Engagement Status</u>
- <u>Appendices</u>
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Solutions that Matter

Executive Summary



In February, DHS Executive Management decided against pursuing Accenture's benefit management solution to support the System Modernization Project. Efforts shifted back to BES Optimization and amending the ASI contract to include changes to the scope of work, requirements, high-level project timeline and other contract modifications. The project plans to complete the contract amendment in March 2020. The project also restarted the weekly status meetings, JAD sessions, and conversion meetings in February, and committed to producing an updated work plan in early March.

Similar to recently released IV&V reports, the practice of providing updates and/or criticality ratings on IV&V findings related to the BES Optimization effort continues to be on hold during this reporting period. With the Project's decision to move forward with the BES Optimization and the project restarting some activities, IV&V will provide ratings for all findings and categories in the March 2020 IV&V Monthly Status Report, regardless of the status of the contract amendment. Now is a good time for the project team to apply lessons learned to avoid past challenges and reduce risk to the project, specifically in the areas of:

- Communication update the Communication Plan to describe the specific framework for sharing and coordinating
 information in a timely manner between vendors (Unisys and subcontractors (e.g. eWorld)) and DHS, clarify roles and
 responsibilities, and indicate clear escalation paths that are respectful of the project governance structure.
- Planning identify, schedule and manage all (to include Unisys and subcontractors (e.g. eWorld) and DHS) of the activities to be performed to get to end of job.
- DDI approach document, review and update the detailed methodology to demonstrate the ASI's ability to complete the
 project and successfully implement the solution, creating a clear understanding of how the project will be performed that
 is commonly shared between Unisys and subcontractors (e.g. eWorld) and DHS.
- Architecture document the technical solution to include the overall architecture, integration and tools in its long-term sustainability and maintainability.

IV&V is hopeful that applying these lessons learned will reduce risk to the project over time and will continue to monitor project activities in these, and other areas in the coming reporting periods.



Dec	Jan	Feb	Category	IV&V Observations	
N/R	N/R	N/R	Project Management	Five out of seven items in the Project Management category are directly impacted by the BES Optimization. IV&V opened a new issue in the February reporting period specific to DHS not having a documented plan to achieve the BES Optimization contract amendment, however, steps to complete the process are being taken. IV&V will continue to review BES Optimization planning documents to further understand potential impacts to the Project Management category in March.	
N/R	N/R	N/R	Configuration and Development	One of the two open findings in the Configuration and Development category will likely be significantly impacted by the BES Optimization. The remaining finding is related to the MQD Portal, for which the RFP has not yet been released. IV&V will continue to review BES Optimization planning documents to further understand potential impacts to the Configuration and Development category in March.	
N/R	N/R	N/R System significantly impacted by the BES Optimization. IV&V will continue to review BES		IV&V has determined that the only open finding in the System Design category will likely be significantly impacted by the BES Optimization. IV&V will continue to review BES Optimization planning documents to further understand potential impacts to the System Design category in March.	
N/R	N/R	N/R	Deployment	IV&V has determined that the only open finding in the Deployment category will likely a significantly impacted by the BES Optimization. IV&V will continue to review BES Optimization planning documents to further understand potential impacts to the Deploy category in March.	
N/R =	N/R = No criticality rating provided				



Dec	Jan	Feb	Category	IV&V Observations	
N/R	N/R	N/R	Requirements Analysis & Management	In February, the project team made good progress by agreeing to 'break down' the MDM Release requirements so that none of the requirements will be 'partially met'. IV&V will keep this finding open until the go forward path for all BES requirements is defined by the project team and will provide an update in March.	
-	N/R	N/RN/RVendor) that have either departed the project or will be departing th months, without having a documented transition plan in either case indicated some knowledge transfer sessions were conducted and th recruiting to fill the open positions. DHS is also taking the initial step planning. IV&V will follow up in March to better understand both the		IV&V has a single finding related to the numerous positions on the project (both State and Vendor) that have either departed the project or will be departing the project in the coming months, without having a documented transition plan in either case. In February, the ASI indicated some knowledge transfer sessions were conducted and they are actively recruiting to fill the open positions. DHS is also taking the initial steps with transition planning. IV&V will follow up in March to better understand both the ASI's and DHS's transition plan and efforts.	
N/R =	N/R = No criticality rating provided				



As of the February 2020 reporting period, PCG is tracking 13 open findings (7 risks and 6 issues) and has retired 28 findings and concerns. Of the 13 open findings, 7 are related to Project Management, 2 are related to Configuration and Development, and 1 each in System Design, Deployment, and Requirements Analysis & Management. IV&V opened one new medium issue in February but did not close any findings during the reporting period. The following figures provide a breakdown of our <u>open</u> risks and issues by priority and category.



The following figure provides a breakdown of <u>all</u> IV&V findings (risks, issues, concerns) by status (open, retired).





Findings Opened During the Reporting Period

#	ŧ	Finding	Category
4	4	Issue - The project has not documented key milestones to amend the contract for the BES Optimization, which could result in a lack of clarity regarding current status and work that remains to be accomplished.	Project Management



Findings Retired During the Reporting Period

#	Finding	Category
	No findings were retired during the February 2020 reporting period.	



Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
	No new preliminary concerns were identified during the February 2020 reporting period.	

#	Key Findings	Criticality Rating
2	Issue – Late Delivery of project deliverables may result in schedule delays . In the February reporting period, the State decided to move forward with the BES Optimization and is currently working with the ASI to amend the contract. An ASI action item was opened to develop an interim schedule on 2/12/2020 detailing the work currently being performed, with expected completion by 2/26/2020. The ASI reported in the 2/19/2020 status meeting they are preparing a project schedule that represents the work planned to be performed up to the time the revised ASI contract is executed. This action item was since pushed out for completion (at a high level) on 3/4/2020.	N/R

R	Recommendations		
•	IV&V will reassess the standing of this finding when the schedule is published by the ASI.	In process	



#	Key Findings	Criticality Rating
5	Risk – The Project Partnership Understanding (PPU) for the BES Project has not been approved by CMS, which may impact the project schedule and funding. DHS met with CMS and decided the MEELC will not apply for this project. The project may be a pilot for the new Outcomes Based Certification (OBC) process to include MITA alignment. DHS provided the ASI with standard language to incorporate into the deliverables that may be impacted by OBC and MITA alignment. IV&V will continue discussions with DHS to ensure there is a clear understanding of the CMS requirements regarding MITA and OBC. IV&V maintains this is a low criticality risk to the project as of the February reporting period.	L

Recommendations	
 Continue dialogue with CMS regarding the project's approach to OBC and MITA alignment to ensure all CMS requirements are met by the BES Solution. 	In process



#	Key Findings	Criticality Rating
26	Risk – Due to the lack of detail in the baseline schedule, unanticipated schedule delays may occur. In the February reporting period, the State decided to move forward with the BES Optimization and is currently working with the ASI to amend the contract. An ASI action item was opened to develop an interim schedule on 2/12/2020 detailing the work currently being performed, with expected completion by 2/26/2020. The ASI reported in the 2/19/2020 status meeting they are preparing a project schedule that represents the work planned to be performed up to the time the revised ASI contract is executed. This action item was since pushed out for completion (at a high level) on 3/4/2020. IV&V will leave this finding open until such time that a revised schedule is published by the ASI.	N/R

Recommendations	
 IV&V will reassess the standing of this finding when the schedule is published by the ASI. 	In process



#	Key Findings	Criticality Rating
27	Risk - The baseline schedule lacks proper resource loading which could result in unanticipated schedule delays. In the February reporting period, the State decided to move forward with the BES Optimization and is currently working with the ASI to amend the contract. An ASI action item was opened to develop an interim schedule on 2/12/2020 detailing the work currently being performed, with expected completion by 2/26/2020. The ASI reported in the 2/19/2020 status meeting they are preparing a project schedule that represents the work planned to be performed up to the time the revised ASI contract is executed. This action item was since pushed out for completion (at a high level) on 3/4/2020. IV&V will leave this finding open until such time that a revised schedule is published by the ASI.	N/R

Recommendations	
 IV&V will reassess the standing of this finding when the schedule is published by the ASI. 	In process



#	Key Findings	Criticality Rating
29	Issue - Uncertainty and/or a lack of communication around long term architecture decisions could lead to unexpected impacts to the project budget, schedule, system design, and planning decisions. In the February reporting period, the project continued to work with the ASI to negotiate the terms and scope of the BES Optimization. Currently, the project is anticipating the possibility of having to push out the BES implementation timeframe, along with a reduction in scope (requirements) in order to stay within the current project budget. Until the BES Optimization contract amendment is finalized, the full impact to scope, schedule, cost, and resources will not be known. IV&V will review plans for the BES Optimization effort and contract amendment as they become available. IV&V will continue to monitor the progress of the BES Optimization, and will readdress this finding in March.	N/R

Recommendations	Progress
 IV&V will reassess the standing of this finding upon complete review of the BES Optimization documentation and will update recommendations for this finding as appropriate. 	In process

#	Key Findings	Criticality Rating
42	Risk - Insufficient ASI communication with DHS regarding key (urgent/time sensitive) project information could lead to project delays and disrupt DHS operations. The ASI has stated their intention to update the project Communications Plan based on IV&V feedback. With the recent replacement of the ASI PM, some stakeholders have reported improved communications and IV&V has observed a significant improvement in productive ASI/IV&V communications. IV&V will revisit this risk with the ASI and DHS in March but maintains this is a medium risk to the project as of the February reporting period.	M

R	ecommendations	Progress
•	Request ASI enhance processes and planning for project communications and include key project communications to DHS in the project schedule.	In process
•	ASI establish a single communications channel to manage all ASI to DHS communications and ensure regular communication to DHS.	In process
•	Update project communications plan with enhanced communication processes.	In process

44 <i>New Issue</i> - The project has not documented key milestones to amend the contract for the BES Optimization, which could result in a lack of clarity regarding current status and work that remains to be accomplished. This is a new issue being reported for the first time. Based on discussions with the ASI in early March, a high-level schedule has been drafted. IV&V will review the schedule and provide an update in March.	#	Key Findings	Criticality Rating
	44	Optimization, which could result in a lack of clarity regarding current status and work that remains to be accomplished. This is a new issue being reported for the first time. Based on discussions with the ASI	м

Recommendations	Progress
 Develop a singular document (e.g., a milestone calendar) to track progress and understand the scope of work needed to be done to complete the BES Optimization contract amendment. 	New





Configuration and Development

#	Key Findings	Criticality Rating
12	Issue – Changes in direction regarding the preferred platform for portal development may impact project schedule and cost. The ASI has restarted JAD sessions for the BES portal design as of 2/11/20 and the KOLEA Portal RFP has not been released. IV&V will continue to monitor and provide an update in March.	м

Recommendations		Progress
•	Complete the Change Request (CR) process to obtain a Rough Order of Magnitude (ROM) estimate and/or impact analysis as appropriate.	Closed
•	Continue discussions with the ASI and DHS to understand the go forward plan related to the BES Portal requirements.	In process



Configuration and Development

#	Key Findings	Criticality Rating
16	 Issue – Lack of clear understanding of DDI approach may reduce effectiveness of JARs and JADs. The ASI recently provided DHS with a series of LucidChart Process Diagrams as a means to provide them with a better understanding of the 'big picture' and how all the individual processes and analysis relate to each other and 'fit together'. Review sessions of these diagrams are planned. Additionally, the project continues to move forward with the BES Optimization. It is currently unknown if the Solution Optimization, or the inclusion of subcontractor development resources, will change or impact the ASI's DDI approach. IV&V will continue to evaluate this finding as additional details about the Solution Optimization are made available. 	N/R

Recommendations	Progress
 IV&V will reassess the standing of this finding upon complete review of the BES Optimization documentation and will update recommendations for this finding as appropriate. 	In process



System Design

#	Key Findings	Criticality Rating
38	Risk – Due to the sequencing of JADs addressing Workflow at the end instead of during current JAD sessions, the project could be faced with significant design rework, which may result in schedule delays, and impact the quality of solution design. The project continues to work with the ASI to negotiate the terms and scope of the BES Optimization. At this time, the plan for how Workflow will be incorporated into JADs is unknown. IV&V will review plans for the revised BES Optimization effort, specifically as they pertain to JADs, once they become available.	N/R

Recommendations		Progress
•	IV&V will reassess the standing of this finding upon complete review of the BES Optimization documentation and will update recommendations for this finding as appropriate.	In process



Deployment

#	Key Findings	Criticality Rating
40	Issue - Due to inadequate DD&I Release Management practices the project may experience delayed or failed releases and/or poor release quality. In the February reporting period, IV&V validates that the ASI still has not yet performed a BES release, however the ASI has now successfully accomplished two releases for KOLEA M&O. IV&V will continue to monitor as it is anticipated that some DDI release changes will be made as the project gets closer to the next BES release. IV&V will continue to monitor the progress of the BES Optimization and will readdress this finding in March.	N/R

Recommendations	
Assign a Release Manager to manage all details of planned releases.	Complete
 Develop a Release Plan document for each release, that provides details of the planned release and all associated configuration items, clear assignments for all staff involved in all tasks, a schedule for completion of all tasks and activities, planned release status communications, and back out procedures should they be necessary. 	In process



Requirements Analysis & Management

#	Key Findings	Criticality Rating
41	Risk - Due to a lack of clarity regarding "Partially Met" requirements in design artifacts, full traceability of requirements may be hampered, and all requirements may not be fully met. IV&V is aware that the ASI has commenced efforts with DHS BESSD to break down requirements into singular, traceable, and testable requirements, in an effort to eliminate concerns about partially met requirements. IV&V recommended use of a uniform acceptance criteria be used to break down the requirements, such as IEEE 29148. IV&V confirms that this effort has been completed and there are no longer any partially met requirements for the Iteration 1 MDM Release. However, it is unclear at this point what the schedule is for the remaining balance of the partially met requirements, or if a uniform acceptance criteria was utilized. IV&V will continue to monitor in March to gain further details of the planned approach forward.	M

Recommendations	
 Determine a requirements management and design artifact that provides full accountability of where every component of a requirement that is listed as 'Partially Met' is satisfied, ensuring that each requirement is Fully Met and can be validated as such. 	In process

OCM & Knowledge Transfer

#	Key Findings	Criticality Rating
43	Risk - Due to key DHS, BES and ASI Project Team members departing and/or transitioning from the project, succession planning and knowledge transfer is needed to ensure there are no gaps in knowledge and leadership on the project. This finding was discussed with DHS and the ASI PM this month and they are taking the initial steps to mitigate this risk. IV&V learned that the ASI PM did attend knowledge transfer sessions with both the former ASI PM and the former ASI PMO Lead, prior to their departures. Further, the ASI has discussed its plans to hire both a full time PM and full time PMO Lead. IV&V will follow-up with DHS and the ASI PM in March and provide an update in the next report. Due to the progress observed in February, IV&V is reducing this risk to a low priority and will continue to monitor.	L

Recommendations		Progress
	The state should develop a transition plan for the project and PMO resources as identified in the RFP, which includes DHS PMO and DHS DDI resources (reference RFP section 3.4.3 'DHS Staffing').	In process
	The ASI should develop a transition plan for each key resource as required by the RFP (reference RFP section 3.5.1.2 'Benefits Eligibility Solution Project Staffing'.)	In process

IV&V Status





IV&V Engagement Status



IV&V Engagement Area	Dec	Jan	Feb	Comments	
IV&V Budget					
IV&V Schedule					
IV&V Deliverables				PCG submitted the final January IV&V Monthly Status Report.	
Centers for Medicare and Medicaid Services (CMS) IV&V Progress Reports				The first quarterly CMS Eligibility and Enrollment (E&E) IV&V Progress Report is on hold until IV&V and DHS determine the appropriate time to submit the report.	
CMS Milestone Reviews				The first CMS Milestone Review date has not yet been determined.	
IV&V Staffing				In this reporting period, IV&V announced that Brian Nagy will be leaving the BES project team and Jolene Strand will assume the IV&V Project Manager position effective March 1, 2020.	
IV&V Scope					
			Engager	ment Rating Legend	
The engagement area is within acceptable parameters.		\bigcirc	The en	gagement area is hat outside acceptable	

HI Systems Modernization Independent Verification & Validation Monthly Report: February 2020

immediate attention.

IV&V Activities



- IV&V activities in the February reporting period:
 - Completed January Monthly Status Report
 - Submitted BI-10 resubmission comments
 - Submitted BI-12 System Architecture Deliverable (MDM only) comments
 - Ongoing analysis of Medicaid Eligibility and Enrollment Toolkit (MEET) requirements applicable
 to BES project
 - Ongoing Review Deliverables for BES project
 - Ongoing Attend ASI project meetings, including JADs and Workgroups (see <u>Additional Inputs</u> pages for details)
 - Reviewed available BES Optimization documentation
 - Review available Ohio benefits management solution documentation
- Planned IV&V activities for the March reporting period:
 - Ongoing Observe BES JAD and Workgroup sessions
 - Ongoing Observe Weekly Project Status meetings
 - Ongoing Observe bi-weekly BES Project Risk and Issue meetings
 - Ongoing Monthly IV&V findings meetings with Unisys
 - Ongoing Participate in weekly DHS and IV&V Touch Base meetings
 - Ongoing Review BES artifacts and deliverables
 - Review updated BES Optimization planning documentation
 - Attend BES Optimization working sessions

Deliverables Reviewed



Deliverable Name	Deliverable Date	Version
BI-02 Project Status Report Deliverable	Weekly as delivered	N/A
BI-10 Functional Design Iteration 1 Reassessment	01/27/2020	V1.3
BI-12 MDM Architecture Re-Assessment	01/10/2020	v1.6
BI-16 Data Conversion Plan Re-Assessment	11/01/2019	v1.6
BI-16 Data Conversion Plan Re-Assessment (specific to section 4.3)	09/01/2019	v1.3

Additional Inputs – Artifacts



Deliverable Name	Artifact Date	Version
Accenture Public Service Platform documentation	N/A	
SSP Combo App Wireframes	02/18/2020	
SSP Create Account Wireframes	02/19/2020	
SSP Pre-Screening Mobile Wireframes	02/21/2020	
Big Picture Documentation - LucidCharts	N/A	

Additional Inputs



Meetings and/or Sessions Attended/Observed:

- BESSD PMO, IV&V Weekly Meeting x4 (02/05/2020, 02/12/2020, 02/19/2020, 02/26/2020)
- BES Status Meetings x4 (02/05/2020, 02/12/2020, 02/19/2020, 02/26/2020)
- BES Change Control Board Meeting (02/05/2020)
- Self Service Portal Review / JAD Sessions x5 (02/11/2020, 02/12/2020, 02/13/2020, 02/18/2020, 02/19/2020)
- Data Conversion Meeting (02/18/2020)
- Accenture SNAP-Cash Eligibility System and Self Service Portal Technical Discussion (02/05/2020)
- BI-12 MDM Technical Architecture Deliverable Comment Walkthrough (02/28/2020)

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.
м	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 [®]	Project Management Body of Knowledge
PMI	Project Management Institute
РМО	Project/Program Management Office
PMP	Project Management Plan
QA	Quality Assurance
QM	Quality Management
RFP	Request for Proposal
ROM	Rough Order of Magnitude
RMP	Requirements Management Plan
RTM	Requirements Traceability Matrix
SEI	Software Engineering Institute
SLA	Service-Level Agreement
SME	Subject Matter Expert

Appendix C – Acronyms and Glossary

Acronym	Definition
SOA	Service Oriented Architecture
SOW	Statement of Work, Scope of Work
VVP	Software Verification and Validation Plan
XLC	Expedited Life Cycle

Appendix D – Background Information



Systems Modernization Project

The DHS Enterprise Program Roadmap includes contracting with three separate vendors with the following high-level scope:

- ESI or Platform Vendor responsible for the shared technology and services required for multiple Application vendors to implement and support functionality that leverages the DHS Enterprise Platform.
- ASI or ASI Vendor responsible for the DDI of the Benefits Eligibility Solution (BES Project) enhancing the currently implemented Medicaid E&E Solution (KOLEA) and providing support for the combined Solutions.
- CCWIS Vendor responsible for the DDI of the CCWIS Solution to meet the needs of child welfare services and adult protective services (CCWIS Project) and providing support for the Solution.

Systems Modernization IV&V Project

IV&V performs objective assessments of the design, development/configuration and implementation (DDI) of DHS' System Modernization Projects. DHS has identified three high-risk areas where IV&V services are required:

- Transition of M&O from DHS' incumbent vendor to the ESI and ASI vendors
- BES DDI
- CCWIS DDI

On the BES DDI Project, IV&V is responsible for:

- Evaluating efforts performed by the Project (processes, methods, activities) for consistency with federal requirements and industry best practices and standards
- Reviewing or validating the work effort performed and deliverables produced by the ASI vendor as well as that of DHS to ensure alignment with project requirements
- Anticipating project risks, monitoring project issues and risks, and recommending potential risk mitigation strategies and issue resolutions throughout the project's life cycle
- Developing and providing independent project oversight reports to DHS, ASI vendors, State of Hawaii Office of Enterprise Technology Services (ETS) and DHS' Federal partners

Appendix D – Background Information



What is Independent Verification and Validation (IV&V)?

- Oversight by an independent third party that assesses the project against industry standards to provide an unbiased view to stakeholders
- The goal of IV&V is to help the State get the solution they want based on requirements and have it built according to best
 practices
- IV&V helps improve design visibility and traceability and identifies (potential) problems early
- IV&V objectively identifies risks and communicates to project leadership for risk management

PCG's Eclipse IV&V® Technical Assessment Methodology

- · Consists of a 4-part process made up of the following areas:
 - 1. Discovery Discovery consists of reviewing documentation, work products and deliverables, interviewing project team members, and determining applicable standards, best practices and tools.
 - 2. Research and Analysis Research and analysis is conducted in order to form an objective opinion.
 - 3. Clarification Clarification from project team members is sought to ensure agreement and concurrence of facts between the State, the Vendor, and PCG.
 - 4. Delivery of Findings Findings, observations, and risk assessments are documented in this monthly report and the accompanying Findings and Recommendations log. These documents are then shared with project leadership on both the State and Vendor side for them to consider and take appropriate action on.

IV&V Assessment Categories for the BES Project

- Project Management
- Requirements Analysis & Management
- System Design
- Configuration and Development
- Integration and Interface Management

- · Security and Privacy
- Testing
- OCM and Knowledge Transfer
- Pilot Test Deployment
- Deployment



Solutions that Matter

Number 21s Recent Finding Toos Manufact Galaxy Manufacture Finding Toos Manufact Galaxy Category The project has not documented key milestones to amend the contract for the BES Solution Optimization, which could result in a lack of during reservation current tables and work that remains Dirren Finding - huse 2/28/2020 Project Management	Observation Sentilization IVV is not aware of a singular document that defines the millestones and timeframe specific to Without a singular document	current detailing timing and milestones, DHS may not be able to track and D	commendation Even revelop a singular document (e.g., a milestone calendar) to track progress and understand the	t Horizon Imaact	Probability A	nalvst Priority	Rodine Status Date Retires	Status Usdate Cleant Comments 3/4/2020 - The ASI PM provided a one-gage last of milestones to complete the contract	Vendar Comments 3/3/2020 - ASI PM indicated a high-level one-page ppt milestone schedule does exist and was
Optimization, which could result in a lack of clarity regarding current status and work that remains Darren Finding - hause 2/28/2020 Project Management to be accomplished.	completing the BES Solution Optimization contract amendment. account for all the steps and As reported in various project meetings, several key DHS PMD, BES and ASI project team members		ope of work needed to be done to complete the BES Solution Optimization contract ASI sendment.	5	5	Med	Open	amendment. YVBV will review the document and provide an update next month. 2/20/2020 - This finding was discussed with DHS and the XXI PM this month and they are taking	3/3/2020 - ASI PM indicated a high-level one-page ppt milestone schedule does exist and wa shared with DHS last week, ASI PM sent the IVV team a copy of the schedule on 3/4/2020.
De to kay DB, SE and AD Papel Taxon methons departing and/or branchising from the projects, scassing and brankeling framerics in media to ensure there are no paper in Johnes Finding - Rok. 1/05/2019 OCM and Dosahedge Tonolor localizing and loadership in the project.	are planning to retrie to leave the project within the ward fee months or have diready transitioned of the pupper. While there are plann and actions begin plann, af action the diverses pro- termition/scension plann has not been documented. In January, the XX did armounce and introduce an interim Project Manager, but a plan for a permanent replacement is not currently known.	is processes, along with a level of consistency and continuity to the the . This experience and knowledge is critical for the BES DDI and KDLEA S	is take should document a transition plan for the project and PMO resources as identified in BPP, which induces DPS MOU and CPG DOC resources (inferences RPF section 1.4.1.1016 affing). The ASI should document a transition plan for each key resource as required by the RPP ASI determine RPP section 1.5.1.2 Tenenits Eligibility Solution Project Staffing.)		3	Low	Open	the initial steps is marging thin rule. Withwared that the AA 2B Md affer aftered biosologie prawfor summary with both both more AD Md and after bioson ADM Cale adapt per to the dispetises. The additional steps of the addi	3/12020 - The ASI PM Asted the Project Coordinator position is filed and they will begin 3/9/2020, the ASI PM and ASI Congernent Menager Roles and its ostated they and currently filing the ASI PM and ASI Congernent Manager Roles and is committed to the proj these roles for the next 6 months.
Neufflann AG communication with D16 and load to project adopy and dirugs D16 operations inform Produce-Biol. 10/28/2013 Project Management	No ne taxoned da Q annovantation to the Quit approprint frances proprint f	where are lead to project defays and may not alree 10% without time to any plan their resources for time another activities. And/or as reports time 10% success to the an advectory at the leader of applications time 10% success to the an advectory at the leader of a success to the analysis of the success the success to the analysis of the success success and pages the grant associates.	Sequed XII observa processes and places for project communities and include key oper communities in to GS in the project solution. For sample, solutions in programmer release activities - AC could be a origin communities of effect in more all CH to GS - AC and the activities of the activities of the CH of the activities of the solution of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the activities of the solution of the activities of the activities of the activities of the activities of the solution of the activities of the		4	Med	Open	42272022 The A3 Bin starts from interview to update the project Communitation from panels of 1017 Mendols. With the approximation of the project Communitation of the project Communitation of 1017 Mendols. With the approximation of the project Communitation of the project Communitation of the approximation of the project Communitation of the project Communitation of the communitation of the project Communitation of the communitation of the project Communitation of the communitation of the communitation of the project Communitation of the communitation	SU/SU/2020 - The ADTM stated the updates to the Communitation, Rear will be submitted and the submitted of the state of the state of the state of the same ten rearrange by ADS . The ADD state of the
Due to a lock of Garly regarding "Versity" Mel' requirements in design profess, bit basedelity of requirements may be langured, and of requirements day not be fully not	Reguments an bad a bage refam is "Printy Mr. With handwah of planed deep, endeds, is under her sampler handwahligt for such requirement with the samplifield within dis deep articular due. Nathoge dis at data wanged are made of ender the deep articular due. Nathoge dis at data wanged are made of ender meaning relationships (a., where a requirement is ushed by walight features or functions):	n anglobal parad diverginas die 2014, it is new reach in wisang and diago.	Hermone a requirements management and dougs withing that provides fail accountables of any wash and any compared of a regularized that is hand or "Synthylyde" a satisfield. Of any phot each requirements in the Marcar and two solidated is such.	83 4	4	Med	Open	02/20/20: Very assert that the AD is an entropical direct well by SEC 10: Is bank dates SEC 20/20: Very assert that the AD is an entropical direct well by SEC 10: Is bank dates sectors also bank direct interpretention. We sector sectors also benefations of the AD is a SEC 20/20: Very assert that the AD is an entropical direct to all sufficient sectors that the SEC SEC 20/20: Very assert that the AD is a sector sector sector sector sectors and sectors all sectors also benefations the sectors all sectors and sectors and sectors and sectors all sectors all sectors all sectors all sectors all sectors and sectors and sectors all sectors all sectors all sectors all sectors all sectors all sectors all sectors all sectors all sectors all sectors all sectors all sectors all sectors all sectors all sectors and all sectors all sectors and all sectors all sectors and all sectors all sectors and all sectors all sectors all sectors all sectors all sectors all sectors all sectors all s	11/20/1931 The AD approximate 10KV deelying that IM-bal routed this scream while and execution of the project program to date: - much of which was particle. 12/20/2019 The AD balances the accurat promot tasks regeneration appropriately and work with DIS and the V or address that resonance generation.
Dat is sudgravid 20 winns encagement parties the project may requirince delayed advance, pair advance quality, or Mind rateous	Notana planning datas oni appara ta ba sufficient to ment the wassis of the proper. (N volumer and the sufficient set of the sufficient to ment the wassis of the proper. (N volumer dataset of the time was as taked in complex sufficient set of accurate to the memory of the sufficient set of the sufficient set of accurate to the sufficient set of accurate mediating tensor of factoriate takes and protocols, discovered from the AGD and Dis. Here and the sufficient set of accurate the sufficient set of accurate to the AGD and Dis.	negeneral processes, can back to implementation subsidie delays, and pear manual disputs), fund-front relation management processes can all hole back to additionable, pear manual and approved and pear transmission tosis. Additionable, pear manual pierces and pearson pairs in an operation.	ong a Natawa Marange In namang al datah al ginamat ristana. Rusalng a Natawa Ras nament na anakana bang-panakan akata in the ginamat akatawa ad anakanaka ang na Natawa Natawa na	2013 4	4	Med	Open	Amount of the second se	BQUD2202: The AD PM Adated sums IN2 functionality was included in the INDA releases to the de DQL waters are summariad on texts. Ad PM respective DV is encluded by the DQL and DQL waters are summariad on texts. Ad PM respective DV is encluded by the DQL and DQL and DQL and DQL and D
Due to the sequencing of MDs addressing Nordhear at the end include of during cannot AO anotany, the paylor canol for faund with high faunt danger means, which may would in holdedule mfora during, and respect the quelity of includent disage	A3 lot (20 anspers ar surrent) daskel up too fondinusi area (Priot), Adoin Appen, Care, francesi, up of two teams regarging one genurancely dash 202 surveilland and an employments. The CA has not at the two teams the analysis of the analysis of the care of the employments. The CA has not at the two teams the analysis of adore. They all ge- sentition are also an atom the two teams that and a surveilland and the analysis of the care of the employments. The care to an atom the surveilland and teams in a dashed, they all ge- sentition are also atom the two teams design and the analysis of the care of the analysis of update the uniting design is include the foreigned as	n half) Joing and proves free discussion during MAV on each to an darge of hours provinces. Structured energy extensions such that for to the structure of the structure of the structure and the structure and the structure of the structure of the structure of the structure with the structure of the structure of the structure of the structure with the structure of the structure o	ti an'i gady ta dalah kao ila andhachad taminahi adi ani. Iso 10 ania kada ndara MA'i ta anahinahini kanimahiy adi ningan mu ayan dagan. Adi		٩	Med	Open	a unbrane. You will not have plane for how many well \$2 builtons optimistication of plants and plan, optimists 10, App. App. Section \$4, App. App. App. App. App. App. App. App	SU(2)(2)(2). The AD FM stated workflow to large addressed in some of the JAD sensitive, AD Vinal Salary are just the project later to pairs a data addresshading of how workflow will index only a state of the AD Vinal Salary and the AD Vinal Salar
Scarsony weight a last of communication around long form architecture desistent could last to magnetic legants to project budget, sheaked, system design, and planning desistem.	Some piction and RS system architecture decisions have yet to be node and satisfand to the project and memory bases and implementary tars bials indexes (per decision). The answer payse architec- ture of the not accurately provided in the system decision of the production of the answer of pipelia architec- ture of the system architecture of the system decision of the system decision of the answer of the system decision of the system	Attention and doings should be an exponentiative and inclusion of all foreign and the strength of the strength	NG segant AD geform due different is any reconvendation for foundational architecture ange decisions. The graphic block of segandar architectural design impact to galaxies, the segandar and the second segandar architectural design in galaxies, the second architectural design architectural design architectural design in the design and architectural design architectural design architectural design and architectural first in a software galardism specific design.	· ·	3	High	Quen	Here had no one bare barefalfe. We make the DB has not responde the AD sharps the properties of ADS, some sharps of endines the norm of the AD sharps the properties of ADS, some sharps of endines the ADS and the Sharps of the ADS 2000. The properties of ADS and the ADS and the ADS and the ADS 2000. The properties of ADS and the ADS and the ADS and the ADS 2000. The ADS and the ADS and the ADS and the ADS and the ADS 2000. The ADS and the ADS and the ADS and the ADS and the ADS 2000. The ADS and the ADS and the ADS and the ADS and the ADS 2000. The ADS and the ADS and the ADS and the ADS and the ADS 2000. The ADS and the ADS and the ADS and the ADS and the ADS 2000. The ADS and the ADS and the ADS and the ADS and the ADS 2000. The ADS and the ADS and the ADS and the ADS and the ADS 2000. The ADS and the ADS and the ADS and the ADS and the ADS 2000. The ADS and the ADS and the ADS and the ADS and the ADS 2000. The ADS and the ADS and the ADS and the ADS and the ADS 2000. The ADS and the ADS	30/20(1938: The AD is working on the KO2A specific content of B12 and this has been rel to OTE. Ref(12)(19 Secure The AD respects) cliently on while long term architecturel disciplina are te referred to:

27	ing nod kind and and and and and and the second	Buttom Description The deal baseline schedule fass not locate at ingen as baseline on the program in the schedule on ingen as baseline on the program in the schedule on ingen as baseline on the program in the schedule on ingen as baseline on the program in the schedule on the schedule	The second secon	4 3	Med	Gpan		39/2020 The XE TAY Industrial Ris solubility any net in Kelly reasonal in US Anaper share A regions a significant at mount of time to manage. They are notee attentions (CK Freesanding tailiging of state with the real V and V after the Matchly review call for the Sagenset models have a significant of the real V and V after the Matchly review call for the Sagenset models have a significant of the real V after the Matchly review call for the Sagenset models have a site of the V and V after the Matchly review call for the Sagenset models have a site of the V and V after the Matchly review call for the Sagenset Matching have a site of the V and V after the Matching have a site of the Sagenset Matching have a site of the V and V after the Matching have a site of the Sagenset Matching have a site of the V and V and the V and V an
28	Due to the lask of detail is the baseline unheadyd, www.sogusted ubweldyd eddyn may excur Darren Prodreg. Rask 5,22(2023 Project Management	The tasks and advices tasks in the proput should in the next (5 day) has no them. A large state of the second state of the proput should in the next (5 day) has no them areas that ice proput tasks are used in queues the second state of the seco	⁶ We contrast to reconvenied that of latch and statistics are throughly descripted by the second state, and a basic convenience within the read 90 days, weakly as a subliq coses ⁶ My 2233 base.	3 3	Med	Open	are notice reading with the Add to grant reading waters. As the Add to the notice relation of the Add to grant reading waters and the Add	SURVEYS 35. The AX did meet with 17 and 14 where the Manethy revew cull for the September report and did with through numerous updates. The AX responses for V and V to update the Ending Landon on the United V values of the Section of Section 2014 (Section 2014) (2012) SS the AK down the re-seathy energies (or server bits schedule) to priorit detail. The AX and SS we multituding gatters is anyoned physical and water and the schedule in the Andrean AX and SS we multituding gatters in Section 2014 (Section 2014) (Section 2014) (2012) SS The AK down and anyone of the Andrean AK and SS and SS and SS and AX and SS and AX and SS and AX and SS and AX and SS and AX and SS and AX and SS and AX and SS and AX and SS and AX and SS and AX and SS an
16	Lak of dar underlanding of 2021 approxis may reduce effectiveness of JANs and JACs milers. Trading: Naws. 12/27/2023. Configuration and Development	Several DM stabilization have communited that the 3D Design Development, and Implementation (20) agreem is involved. While dealerships in the rest of a stabilization of the stab	FCC recommends and ar more of the following the religion file reli + 3 grantile as additioned SDS approximation are assumed for additional source and all law for SDR + 3 grantile and SDR are approximately and the set of additional source and and the set of the	4 3	Med	Quen	B12 Spherosense proposed accounterplaces and mark the B05 M06 between the source and accounterplace accounters. Include, case and accounterplace ac	B/2/2/22 B bit has agend to this stabilized B bit maps to which will be reversed as and of the stabilized B bit and the stabilized B bits and t
22	Dangen in distation regenderg for genderne plotters for gende development may impact project schedule and cast. [Schlay or Addina]	The project transits is after Adults in the prefered prefere for prefix development, should it (inder prefered to the second prefixed prefixed prefered prefered to the second prefixed prefixe	 Still request more should from the lot to before understand the dotted around such a high cost dotted set of the lot of	4 3	Med	Open	produce managing tables pairs for A for A mandred processing the same (RADers) manufactor of the same	SU(2)(2) SE. The AX emodel lise for any VE supplies their assessment is include the states that there have no basis includes an information of the tables of the same provide the second states of the same provide the same provide the SO(E) as a supplier and 200 for the tables of the same provide the SO(E) and the and DE enclosed states are also assessment of application to add the table tables the SO(E) and all DE enclosed states are also assessment of application to add the same table SO(E) and SO(E)/SO SE add the communities and assessment of application to the tables and the SO(E) and SO(E)/SO SE add the same provide the SO(E) and SO(E) and SO(E) SO(E)/SO SE add the same provide the same provide the tables are table to provide in the tables of the same provide the same provide the tables are table and the same provide the tables are subschedule and the SO(E)/SO(E) and provide the tables of the same provide table tables are tables and the same provide the tables are subschedule and tables.
5	The Project Personning Submitseding (PPG) for the EELProject has not been approved by CMS, Jacknes Tealing, Pask 12(28)/2028 Project Management which may regard the project submitsed and functing.	The CM Shops Parkanehig Subinducing (RN) is not instand failesen for Sala at CM for The CM Shops Parkanehig Subinducing and the Material Specify and constraint Section (MM RV) is not failed part to the Start's approval of the factorise and technical Constraints. That is strained and the Material Specify and constraints failed part (MM RV) is and failed part to the Start's approval of the factorise and technical Constraints. That is strained and the Material Specify and the CM parameters for Specify and the specific technical and technical Constraints. That is strained and the CM parameters for Specify and the and technical parameters.	The State and CM simplice the PPU and the project incorporate all federal reporting and Provide inclusion and Technical Reportance Reported.		Low	Que	DB de adores, Lanos de fendra la samo "in the KDA anciet in Marken sudder the roke. We have the set of the se	

	Finding Number Title	Reporter Finding Type Identified Date	Category	Observation	Senficance	Recommendation	Event Harlson	Impact Probability	Analyst Priority Finding Stat	Date Retired Status Update	Client Comments	Vendor Comments												
										02/29/2020 - The State decided to move forward with the BES Solution Optimization and in	1	10/10/19 SB: The ASI is working in close collaboration with DHS on the schedule and are assessing												
										currently working with the ASI to amend the contract. An ASI action item was opened to a		options to the project schedule and content and would ask the IV and V to reflect DHS's current												
										an interim schedule on 2/12/2020 detailing the work currently being performed, with expe	icted	assessment of this issue.												
										completion by 2/26/2020. The ASI reported in the 2/19/2020 status meeting they are prep	aring a	09/12/19 SB: The ASI meets weekly with DHS to review the schedule in detail and will continue to												
										project schedule that represents the work planned to be performed up to the time the rev		do so. As noted earlier, the ASI and DHS are assessing options to simplify the schedule and work												
										contract is executed. This action item was since pushed out for completion (at a high level	l) on	item tracking process.												
			Project Management			IVV recommends that the ASI complete the Project Management Plan deliverable, work with DH				3/4/2020. IVV will leave this finding open until such time that a revised schedule is publish		6/11/29: The ASI and client are holding daily stand up meetings to review progress made that day,												
						and IW for review and edit as needed, and attain approval of the PMP. This will help ensure that	at			the ASI. 01/31/2020 - During the January reporting period, the State informed IW they are		any issues identified and the plan for the following day. These meetings specifically review the												
						all processes within the project management entity are thoughtfully and collaboratively				researching alternative solutions for the BES application. As DHS and the ASI agreed not to		schedule and review opportunities for pull in. The ASI and client are also holding weekly standup												
						developed and implemented to meet the needs of the project. Review and update the project	ward update the project maintain the current schedule, the ASI published the last schedule update on December 10, 2019.		meetings with the entire team to review progress, issues, and activities coming up the following															
						schedule to capture and discuss the late deliverable and tasks and delivery thereof; needed				IVV will leave this finding open until such time that a revised schedule is published by the	ASI. As	week with the objective of collaboration and joint ownership of the projects progress and												
				Based upon the project schedule dated 11/26/18 (refer to schedule for sparil	Based upon the project schedule dated 11/26/18 (refer to schedule for specifica), several due	mitigation actions along with identification and agreement with DPG on DDI to resolve the late				reported last month, updates and ratings are suspended for this finding until additional		schedule improvement.												
					these deliverables Without a PMP that depicts all Project Management processes, the Project can suffer unplanned	activities and tasks. Updated Recommendation 10/10/2019: - Continue to manage and track th	nsure deliverables are provided as planned Review the schedule critical path in		3/13/29 Bill Thornton, Univys:															
	Late delivery of project deliverables may result in schedule delays.	Jolene Finding-Issue 11/28/2018 Project			It is used to manage consequences in scope, schedule, cost, and quality parameters. Without a schedule that provider				High Open			Specific to the PMP, the DED was approved by DHS on 1/15/2019 and the deliverable												
	and derivery of project deriverables may result in schedure delays.	where rinning-more strangers rinner				the execution of the project imageness that prove instances in the second day a backlos of the required level of detail to manage the execution of the context in the second day a backlos of the required level of detail to manage the work, the project is at risk to be successful.	product to come between this shit with more be commenceded by a backles of the converted level of detail to proceed the proceed by a backles of the proceeded	^b the weekly schedule review meeting Continue to meet weekly with DHS to convey new schedule			ngn open	period, the IVV Team reviewed the existing BES Optimization proposal documentation and		submitted on 1/21/2019. Specific to the project schedule, the DED was approved by DHS on										
				Deliverable Expectation Documents (DED) requiring approval and acceptance f			n, obtaining, add documents the concrition actions fisher will be basice to address schedule with the QCS ADOL educurs. It is the intermediate the US and the concentration of the text of tex		1/23/2019 and the deliverable is planned for submission the week of 3/18/2019.															
				benne able capecanan bocamente (bcb) regaring approval and acceptance i	une une autre.			ure,	2/6/19, Bill Thornton, Unisys: Executive Summary Risks Feedback The project schedule has															
			sheaka, and update according's - Determinent's france in DOS will impact the sheaka, and update according's - According to project sheaka about the sheaking sector of the sheaking according to the sheak up them waiting them is also and according to project sheak about the sheak about the sheak according to project sheak about the base and update the sheaka according to the sheak according to the sheak according to base and update the sheakab according to		schedule, and update accordingly - Determine if rework to FDDs will impact the schedule, and requirements, schedule, cost, and resourcing to fully determine the impact of the BES		been baselined but it needs to be re-baselined based on the approval dates of the DED's.																	
						up time resulting from the current delayed activities - Develop a process for determining what finding until additional information is provided to TVV. TW will continue to monitor the progress		Deliverable delays - as deliverables are not supposed to be started until the DED is approved,																
								the deliverables are not delayed, they need to be re-baselined based on the DED approval.																
						don, determine how many iterations there will	of the BES Optimization, and will readdress this finding in January 11/26/2019 - At the end		Findings and Recommendations (#2) - Project Management ASI submitted 19 deliverables and															
						be, and update the schedule accordingly			November 2019 reporting period, IVV received supporting documentation on the proposed		DEDs - Clarification - there were 2 deliverables submitted (BI-8 Technical specs for the non-													
										solution. Based on that information, IVV has decided to retain this finding as active but su		prod environments and BI-4 the PMP) - the rest were DEDs. Deliverable Review process has not												
										any updates or ratings until the team is able to thoroughly review the materials and discus		been finalized - this is part of the PMP document Late deliverables - as deliverables are not												
						details of the "Pivot" solution with the project. IW will reassess this finding duri		supposed to be started until the DED is approved, the deliverables are not delayed, they																
										2019 reporting period. 10/31/2019 - IVV observed the following in October related to this		need to be re-baselined based on the DED approval 12/6/18, Kcith Stock, Unisys:												
1																								The ASI white boarded the 'Big Picture' and agreed to document the process - planned to I