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September 15, 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 <http://ets.hawaii.gov> (see "Reports").

Sincerely,


Douglas Murdock (Sep 15, 2020 11:37 PST)

Douglas Murdock
Chief Information Officer
State of Hawai'i

Attachment (2)



Hawaii Department of Human Services Systems Modernization Project

Final IV&V Status Report
for Reporting Period: August 1 - 31, 2020

Submitted: September 14, 2020

Overview

- [Executive Summary](#)
- [IV&V Findings and Recommendations](#)
- [IV&V Engagement Status](#)
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Solutions that Matter

The background is a solid blue color. It features several abstract geometric shapes, including squares and rectangles, some of which are outlined in a lighter blue and others are solid. These shapes are scattered across the page, with a higher concentration on the left side. The text 'Executive Summary' is centered on the left side of the page.

Executive Summary

Executive Summary



In August, the project team continued to refine the project delivery framework. IV&V observed, however, that the project schedule is not effectively managed, and it has not been adjusted by lessons learned from Release 0.1. The pace of the project needs to increase – too many due dates are missed and when delays are identified, slippage is often weeks instead of days, indicating a lack of urgency. The project team has not effectively integrated the Agile Methodology for code development with the required milestones, collaboration and deliverables, which are more closely aligned to a Waterfall Methodology, causing the software code development activities to be out of sync with other project artifacts and processes. Recognizing this, DHS/ASI agreed to pilot changes to the deliverable review/approval process. This is a positive step and may prevent go-live slippage due to already experienced delays.

While it may be in the best interest of the project to conduct a root cause analysis to address these challenges, IV&V believes there are several ‘quick wins’ that could be implemented with or without doing so. A few examples include: Identify staff to ‘drive’ the team to the schedule and completion of action items, improve communications between DHS/ASI/Development Team; improve meeting facilitation. If the project management processes and communication activities do not change, there is a high probability more delays will be experienced.

Jun	Jul	Aug	Category	IV&V Observations
M	H	H	Project Management	The Project Management category continues to represent most of the IV&V findings, which consist of risks and issues specific to the project schedule, solution architecture, quality of project artifacts, communications, roles and responsibilities, DHS staffing and UAT readiness.
M	M	M	Configuration and Development	The project team is still attempting to understand the ASI’s development approach. A deeper understanding is expected to be gained in September, when the ASI further defines the architecture, completes and delivers the remainder of the of Release 0.1 deliverables and updates the schedule to align to the approach described in the DD&I Plan.

Executive Summary



Jun	Jul	Aug	Category	IV&V Observations
M	M	H	System Design	A new issue (previously reported as a concern) was added this month, increasing the criticality of this category to high. The overall architecture is not documented for the project yet Release 0.2 coding is complete.
L	L	L	Deployment	There are no material changes to this category in this reporting period. Several Release Management improvements were identified during early M&O and Release 0.1, which the ASI is planning to apply to future releases.
M	L	L	Requirements Analysis & Management	DHS and the ASI continued to 'break down' the project's functional requirements to eliminate the instance of 'partially met' requirements. This activity was delayed and is planned for completion in September.

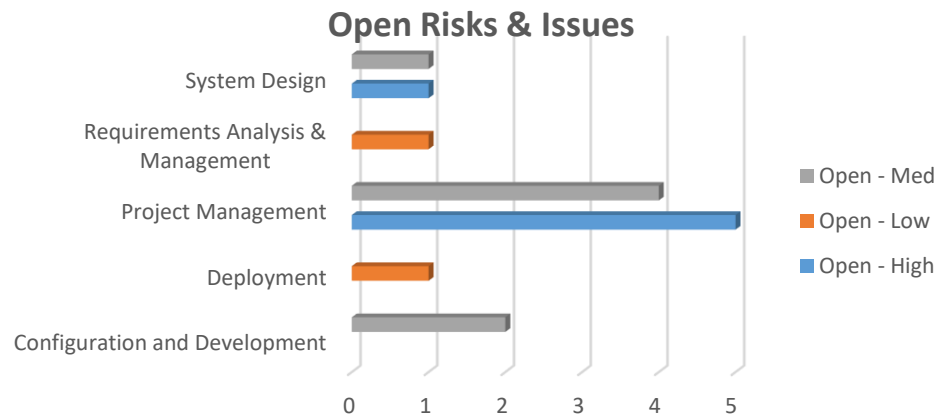
The background is a solid blue gradient. Overlaid on this are several abstract geometric elements: squares of various sizes and shades of blue, some with thin white outlines, and thin white lines that connect some of the squares, creating a network-like structure. These elements are primarily located in the upper left and lower right corners, leaving the center area clear for the text.

IV&V Findings and Recommendations

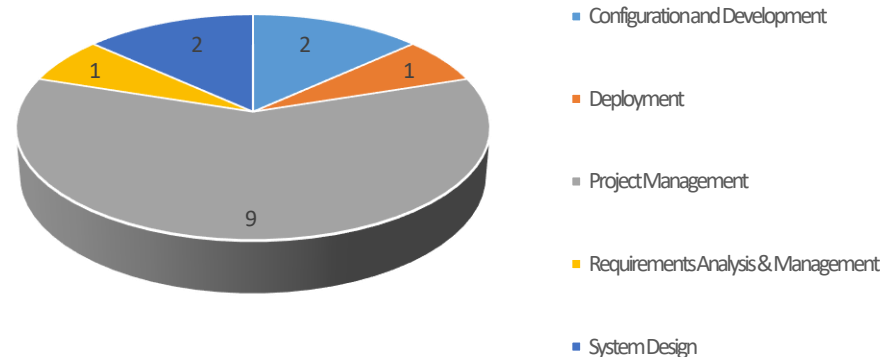
IV&V Findings and Recommendations



As of the August 2020 reporting period, PCG is tracking 15 open findings (9 risks and 6 issues) and has retired a total of 38 findings. Of the 15 open findings, 9 are related to Project Management, 2 in Configuration and Development and System Design and 1 each in Requirements Analysis and Management, and Deployment.



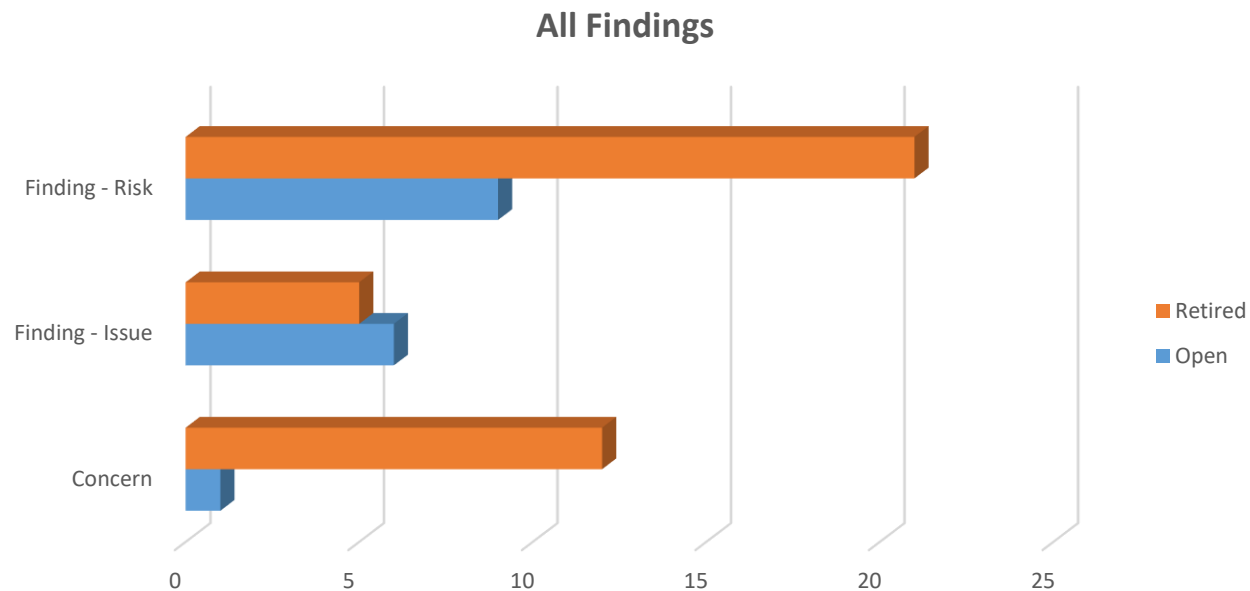
Open Risks & Issues by Category



IV&V Findings and Recommendations



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



IV&V Findings and Recommendations



Findings Opened During the Reporting Period

#	Finding	Category
	Two preliminary concerns reported in previous months were escalated to a risk/issue this month. They are found on page 20 and 24 of this report.	

IV&V Findings and Recommendations



Findings Retired During the Reporting Period

#	Finding	Category
56	<p>Concern - DHS and IV&V lack of participation in the BES Project Architecture and Agile Development meetings. Some DHS staff and IV&V are not included in the Architecture and Agile Development meetings. This prohibits DHS and IV&V's ability to understand how the project team is accomplishing work and resolving issues that may impact the project, user, client and solution.</p> <p>In August, the ASI addressed both areas of this concern, inviting DHS and IV&V to the weekly Architecture and agreed to include DHS and IV&V in select future Development meetings.</p>	Project Management

IV&V Findings and Recommendations




Preliminary Concerns Investigated During the Reporting Period

#	Finding	Category
55	Test Case creation without functionality acceptance from JAD/JAR sessions. IV&V is researching how the JAD results including acceptance criteria are carried over or linked to the use cases and testing processes.	Testing

IV&V Findings and Recommendations



Project Management

#	Key Findings	Criticality Rating
2	Issue – Late Delivery of project deliverables may result in schedule delays. Although the ASI provided some deliverables and work products on time during this reporting period, the finalization of several other deliverables (i.e., Solution Optimization BI-5 Project Schedule, various Release 0.1, 0.2 and 0.3 Deliverables and work products including the Data Conversion Plan) are behind schedule IV&V maintains this issue as a high criticality finding since the project schedule is not approved by DHS, the schedule continues to be updated with new target completion dates, and late tasks span multiple releases.	

Recommendations	Progress
<ul style="list-style-type: none">Prior to acceptance of the new baseline, finalize the needed updates to the project schedule to address the outstanding items/issues identified by DHS, the ASI, and IV&V.	In process
<ul style="list-style-type: none">Establish the process for DHS and the ASI to mutually agree to the revised project schedule baseline.	Complete
<ul style="list-style-type: none">Establish the process for on-going schedule management and weekly updates, utilizing the Schedule Management sub-plan of the Project Management Plan (BI-04).	In process

IV&V Findings and Recommendations



Project Management

#	Key Findings	Criticality Rating
29	<p>Issue - Uncertainty and/or a lack of communication around long term architecture decisions could lead to unexpected impacts to the project budget, schedule, system design, and planning decisions.</p> <p>In August, DHS is considering changing the cloud platform from Azure to Google and a Change Request is currently in progress. The ASI appears to be making plans to migrate their existing environment to the new platform as the ASI's subcontractor (eWorld) is currently developing the system using their own environments. The ASI is making some progress in the communication of architecture decisions. The new ASI lead architect holds a weekly Architecture meeting which provides DHS a forum to discuss and/or clarify architecture plans and decisions. However, it remains unclear if these architecture plans and decisions are broadly communicated to appropriate stakeholders including the project team. Additionally, project leadership recently clarified the role of the ESI given the change of platforms from Siebel to Java in the cloud; the ESI will not be responsible for any stand-alone BES environments, only the KOLEA/BES shared service environments.</p>	
Recommendations		Progress
• The ASI should continue to document the architectural details in the BI-12 System Architecture Deliverable and if possible, review draft content with DHS and IV&V.		In process
• DHS should finalize the Portal strategy and communicate the strategy with the stakeholders and project teams.		In process
• The project should vet possible architectural change impacts to the platform, M&O, MQD, and BES systems before finalizing architectural decisions.		In process
• Efforts should be made to increase communication to create an awareness of possible architecture changes so that they can prepare for the possibility of a change. For example, if there is a possibility that the platform could change then analysis/design could focus on platform agnostic design and avoid extensive efforts in refining a platform specific design.		In process

IV&V Findings and Recommendations



Project Management

#	Key Findings	Criticality Rating
42	Risk – Project delays and disruption in DHS operations may occur if ASI communications with DHS regarding key (urgent/time sensitive) project information does not improve. The ASI has made changes to the format and content of the project status report to address DHS concerns. For the most part, weekly status meetings have involved the ASI reading the status report to DHS without much discussion or elaboration. DHS leadership has stated they fail to see the value in this method and have asked the ASI to explore ways to encourage productive conversations during this meeting. DHS has also requested the status report include target dates and suggested combining the schedule meeting with the project status meeting. DHS also expressed concern that the project is maintaining multiple action item logs, which could create confusion. Not all ASI staff were aware there were separate logs and are currently reviewing to merge as much as possible into the main project action item log.	M

Recommendations	Progress
• Request ASI enhance processes and planning for project communications and include key project communications to DHS in the project schedule. For example, notifications in preparation for release activities.	In process
• ASI establish a single communications channel to manage all ASI to DHS communications and ensure regular communication to DHS.	In process
• ASI increase dialog with the DHS project team individuals instead of relying on formal meetings to inform and discuss project topics. Update the project communications plan with enhanced communication processes.	In process

IV&V Findings and Recommendations



Project Management


#	Key Findings	Criticality Rating
43	<p>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.</p> <p>Progress was made this month in that the Data Steward position was filled. The candidate will join the project on 9/1/20.</p> <p>The Data Conversion Lead and the DHS PMO positions continue to be in an open status. The DHS PMO team is working with DHS and BESSD Executive Leadership to identify new owners of some of the tasks. Concurrently, DHS is seeking approval to fill all open positions and recruitment is ongoing.</p>	

Recommendations	Progress
<ul style="list-style-type: none">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'). It should also include possible project resource impacts considering the COVID-19 economic impacts to the State.	In process
<ul style="list-style-type: none">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'.)	Closed

IV&V Findings and Recommendations



Project Management


#	Key Findings	Criticality Rating
47	Risk – The COVID-19 pandemic and the related "stay at home" order could hinder project activities and negatively impact the project schedule and budget. Honolulu City and County leadership announced an updated Stay at Home order beginning 8/27/2020, planned for 2 weeks. COVID-19 related hiring freezes may hinder the DHS ability to replace project PMO vacancies as well as other potential hires to meet project needs and to support the new system post-go-live. DHS and the ASI have managed the project effectively over the last 6 months, therefore IV&V is changing the priority to Medium.	

Recommendations	Progress
<ul style="list-style-type: none">Ramp up efforts to setup, train, and assist stakeholders on remote work devices and tools and make every effort to help them to become highly functional with remote access technology (e.g. MS Teams/Skype).	In process
<ul style="list-style-type: none">Suggest the project and DHS create a detailed, documented risk mitigation strategy and plan that is reviewed regularly and revised to address the current state of the COVID-19 threat and related impacts over the next 6 to 12 months. The plan should include the possible economic impacts to the state budget directly related to project resources.	In process
<ul style="list-style-type: none">Update the OCM Plan to include any new activities or updates to planned activities to aid the organization through this COVID-19 pandemic in the short and long term.	In process

IV&V Findings and Recommendations



Project Management


#	Key Findings	Criticality Rating
48	Risk – The CMS Outcomes-Based Certification Requirements have not been published by CMS, which may impact the project schedule and funding. No update was provided during this reporting period, IV&V will follow-up with DHS and provide an update in the next report.	

Recommendations	Progress
<ul style="list-style-type: none">DHS to continue dialogue with CMS regarding the project's approach to OBC and MITA alignment to ensure all CMS requirements are met by the BES Project.	In process

IV&V Findings and Recommendations



Project Management

#	Key Findings	Criticality Rating
49	Issue – Poor quality project deliverables may lead to rework and negatively impact the system design, testing artifacts and project schedule. The ASI re-submitted multiple deliverables during August, mostly to address outstanding comments. The BI-10 deliverable for Release 0.1 was iterated twice in August and does not meet DHS' needs. IV&V will leave this finding open until Release 0.2 deliverables have been reviewed and quality has proven to be improved across all deliverable and work products.	

Recommendations	Progress
<ul style="list-style-type: none">IV&V recommends that a facilitated root cause analysis be performed by the ASI with DHS and IV&V in attendance. Quality issues are rarely generated by a single entity in a project, so there could potentially be multiple causes or root causes of this current condition. Once the root cause(s) are identified, IV&V recommends immediate action be employed to resolve quality concerns on in-process deliverables prior to submission of subsequent deliverables	In process

IV&V Findings and Recommendations



Project Management

#	Key Findings	Criticality Rating
54	Issue – Poorly planned and executed UAT could lead to implementation delays and delivery of a solution that may not meet all business needs. The ASI conducted 3 Lessons Learned sessions with the project team to review the list of Release 0.1 UAT opportunities for improvement. The summary of the actions, planned resolution, and release number when resolution will be implemented was sent to the project team. Not all actions will be implemented for Release 0.2. DHS indicated they were expecting all actions be applied in Release 0.2 and it is unclear why some actions are planned after Release 0.2. This may result in UAT issues/concerns experienced in Release 0.1 replicated in Release 0.2. Additionally, all actions planned for Release 0.2 are not in current schedule; which may cause additional delays.	A red circle with a white letter 'H' inside, indicating a high criticality rating.

Recommendations	Progress
<ul style="list-style-type: none">The ASI further develop the action plan to include owners and target complete dates. Report progress in the weekly status meeting.	Not started
<ul style="list-style-type: none">All agreed upon actions to resolve issues called out in Lessons Learned should be added to project schedule so adequate timing is provided to support UAT preparation and execution.	In process

IV&V Findings and Recommendations



Project Management


#	Key Findings	Criticality Rating
57	<p>New Risk – Roles and responsibilities of the BES "Product Owner" and communication of this role's activities with DHS and the project team is not clear.</p> <p>This finding was reported as a preliminary concern in the July IV&V report and is escalated to a risk to the project in this reporting period..</p> <p>Due to DHS staffing constraints, the ASI is filling the role of Product Owner and Product Manager. The product manager and/or owner often make decisions that impact specific business functionality. If this role is to be filled by the ASI, knowledge of DHS' business functions is critical and strong communication channels are a must. However, IV&V could not find evidence of a communication path of these discussions and decisions with DHS.</p> <p>In August, although the ASI stated many touch points exist between DHS and the Product Owners/Managers, DHS does not confirm a level of engagement they feel is needed to properly influence/monitor design and development processes. The complexity of BES increases with the future releases and is a risk that needs a clear mitigation plan. Recently, the ASI recognized this as a gap and is taking action.</p>	

Recommendations	Progress
<ul style="list-style-type: none">Identify and execute to the communication path agreed to by DHS/ASI between the Product Managers and Product Owners and DHS/BESSD.	In process
<ul style="list-style-type: none">The ASI to clearly define the staff assigned and the roles and responsibilities of the ASI Product Managers and Product Owners.	In process
<ul style="list-style-type: none">DHS consider adding staff to the project team with 'deep' BESSD business knowledge to work hand-in-hand with the product owners and development team	In process

IV&V Findings and Recommendations



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. DHS leadership agreed the intent of the portal is to support the “No Wrong Door” experience for the clients (similar client experience regardless of portal used) and continues to discuss options regarding how this concept will be planned, executed and implemented.	

Recommendations	Progress
<ul style="list-style-type: none">DHS continue to work with the ASI as DHS evaluates options to plan, execute and implement the BES Portal.	In process

IV&V Findings and Recommendations



Configuration and Development


#	Key Findings	Criticality Rating
16	Issue – Lack of clear understanding of the DDI approach may reduce effectiveness of all SDLC Processes.. DHS Test Leads continue to express concerns about the effectiveness and efficiency of the ASI testing process, tools and methodology despite efforts by the ASI to improve processes based on feedback from multiple lessons learned sessions.	M

Recommendations	Progress
• ASI provide DDI approach documentation/materials for stakeholders to review and/or refresh their knowledge on demand; the materials could be made available via the project SharePoint.	Not started
• Encourage ASI and DHS testers to consistently collaborate during SIT and UAT activities.	In process

IV&V Findings and Recommendations



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. There are no material updates to this risk in August 2020.	 M

Recommendations	Progress
<ul style="list-style-type: none">The ASI to define how the workflow/task functionality will be refined and integrated into the system designs. Communicate this approach with the project team and train the Business Analyst session facilitators.	In process

IV&V Findings and Recommendations



System Design


#	Key Findings	Criticality Rating
53	<p>New Issue – The System Architecture documentation is scheduled for completion after multiple releases are in development, and some releases are already completed.</p> <p>This finding was reported as a preliminary concern in the previous IV&V monthly report and is escalated to an issue in this reporting period.</p> <p>The System Architecture documentation is a foundational technical document intended to provide the standards and guidelines for all solution hardware and software components that will reside in the solution. This foundational document should be completed and agreed to prior to any code development, to ensure the code meets with the architectural principles and overall design. We recognize some flexibility is needed in an Agile approach however, the overall Architecture should be documented and followed with updates as needed.</p> <p>To date, no sections of the System Architecture deliverable (BI-12) have been formally approved by DHS. The ASI is currently responding to comments on some sections of the initial draft, however the schedule dates for the Shared Services and CMM sections continue to be missed. Software continues to be constructed without the overall guidance of the System Architecture deliverable, which may result in variation in the development efforts. Based on the current schedule, 5 of the planned 7 releases will be in progress by the time the architectural details are made available, and 2 releases will already be completed.</p>	

Recommendations	Progress
<ul style="list-style-type: none">Recommend completing and approving the BI-12 System Architecture deliverable prior to development of source code.	In process
<ul style="list-style-type: none">If completing the BI-12 deliverable prior to development of code is not possible for any reason, ensure that all portions of the architecture that are directly or indirectly related to the source code development efforts, standards, and processes be submitted for approval by DHS in draft form prior to code development, and subsequently followed up with final completion of BI-12 in accordance with the project schedule.	In process

IV&V Findings and Recommendations




Deployment

#	Key Findings	Criticality Rating
40	Risk - The planning and approach of the ASI Release Management practices were identified as an area to improve during early releases. Although UAT for Release 0.1 was completed in early July, the associated deliverables have either not been delivered or not been accepted more than 6 weeks later. Release planning needs to account for the deliverables associated with a release in addition to the software development activities. The ASI conducted a third Release 0.1 Lessons Learned activity on 8/17/20, and delivered an Action Plan on 8/21/20, however the plan does not include owners or due dates for the planned improvements.	
Recommendations		Progress
• 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
• Update the Release 0.1 Lessons Learned action plan to include owners and due dates.		Not started

IV&V Findings and Recommendations



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. There are no substantive changes on this finding reported for August. Although this activity was scheduled for completion on 8/25/20, the work is not complete.	

Recommendations	Progress
<ul style="list-style-type: none">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

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IV&V Status

IV&V Engagement Status



IV&V Engagement Area	Jun	Jul	Aug	Comments
IV&V Budget				
IV&V Schedule				
IV&V Deliverables				PCG submitted the final July 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				
IV&V Scope				DHS and IV&V met on August 13, 2020 to discuss the IV&V schedule, contract and cost in relation to the BES project delays.
Engagement Rating Legend				
The engagement area is within acceptable parameters.		The engagement area is somewhat outside acceptable parameters.		The engagement area poses a significant risk to the IV&V project quality and requires immediate attention.



- IV&V activities in the August reporting period:
 - Completed – July Monthly Status Report
 - Completed – Delivered the Final Adhoc Staff Assessment Report to DHS
 - Ongoing – Review Artifacts and Deliverables for BES the project
 - Ongoing – Attend ASI project meetings, (see [Additional Inputs](#) pages for details)
 - Reviewed available BES Optimization contract amendment documentation
- Planned IV&V activities for the September reporting period:
 - Ongoing – Observe BES Development, JAD and Workgroup sessions as scheduled
 - Ongoing – Observe Weekly Project Status meetings
 - Ongoing – Observe Weekly Architecture meetings
 - Ongoing – Observe Weekly/Monthly Security meetings
 - Ongoing – Monthly IV&V findings meetings with the ASI
 - Ongoing – Participate in weekly DHS and IV&V Touch Base meetings
 - Ongoing – Review BES artifacts and deliverables

Deliverables Reviewed



Deliverable Name	Deliverable Date	Version
BI-02 Project Status Report Deliverable	Weekly as delivered	N/A
BI-05 Schedule Re-Baseline	Weekly as delivered	N/A
BI-10 Release 0.1 FMM Functional and System Design Document	08/06/2020	1.7
BI-10 Release 0.1 FMM Functional and System Design Document	08/19/2020	1.10
BI-10 Release 0.2 SSP Functional and System Design Document (draft in walkthrough)	Draft	N/A
BI-12 FMM System Architecture	8/5/2020	N/A
BI-14 Release 0.1 SSP Technology Design Document (draft in walkthrough)	Draft	N/A
BI-21 Release 0.1 Functional and Technical RTM	08/11/2020	1.0
BI-22 Release 0.1 System Test Report (draft in walkthrough)	Draft	N/A
BI-22b Release 0.1 FMM UAT Evaluation Report	08/12/2020	1.1
BI-22b Release 0.1 FMM UAT Evaluation Report	08/14/2020	1.3

Additional Inputs – Artifacts



Deliverable Name	Artifact Date	Version
Unisys Contract Amendment 3	4/17/2020	N/A
2019-11-22 HI Test Plan - FNS Comments.xlsx	11/22/2019	N/A
FNS 901 Handbook	01/2020	V2.4
Release 0.2 Test Plan (draft in walkthrough)	N/A	N/A

Additional Inputs



Meetings and/or Sessions Attended/Observed:




1. Weekly Platform Security Meeting x3 (8/6/2020, 8/13/2020, 8/27/2020)
2. PCG Internal BES Project Meetings x11 (08/03/2020, 08/06/2020, 08/10/2020, 08/12/2020, 08/17/2020, 08/18/2020, 08/20/2020, 08/24/2020, 08/27/2020, 08/31/2020)
3. BESSD PMO, IV&V Weekly Meeting x4 (08/05/2020, 08/12/2020, 08/19/2020, 08/26/2020)
4. BES Status Meetings x4 (08/05/2020, 08/12/2020, 08/19/2020, 08/26/2020)
5. BES Schedule Review Meetings x4 (08/04/2020, 08/11/2020, 08/18/2020, 08/25/2020)
6. July Pre-Draft Report Review with ASI (08/04/2020)
7. Jira Review with ASI (08/03/2020)
8. August Pre-Draft Report Review with ASI (08/31/2020)
9. July Draft Report Review with ASI and DHS (08/11/2020)
10. ASI Touch Base x2 (08/18/2020, 8/31/2020)
11. BES Functional Meeting x2 (08/11/2020, 08/18/2020)
12. BI-Weekly Deliverables Walkthrough x2 (08/04/2020, 08/06/2020)
13. Data Conversion Meetings x3 (08/06/2020, 08/18/2020, 08/25/2020)
14. RO.2 FMM and CMM Requirements (08/06/2020)
15. DHS DDI Architecture Weekly Review Meeting x2 (8/18/2020, 08/25/2020)
16. RO.2 FMM and CMM Demo and Final Requirements (08/25/2020)
17. JAD to Testing Walkthrough Meeting (08/11/2020)
18. BI-20 RO.2 Walkthrough Meeting (08/13/2020)
19. RO.1 Lessons Learned Action Plan Meeting (08/17/2020)
20. SSP | RIDP Replacement Option (08/20/2020)
21. BES Tools, Use and Reports Questions Meeting (08/24/2020)
22. BI-10 & Release Phase Gates Meeting (08/26/2020)
23. ECM/ECF Meeting (08/26/2020)
24. BES Project Release 0.3 Kick-off Meeting (08/27/2020)

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Appendices



Appendix A – IV&V Criticality Ratings

Criticality Rating	Definition
	A high rating is assigned if there is a possibility of substantial impact to product quality, scope, cost, or schedule. A major disruption is likely, and the consequences would be unacceptable. A different approach is required. Mitigation strategies should be evaluated and acted upon immediately.
	A medium rating is assigned if there is a possibility of moderate impact to product quality, scope, cost, or schedule. Some disruption is likely, and a different approach may be required. Mitigation strategies should be evaluated and implemented as soon as feasible.
	A low rating is assigned if there is a possibility of slight impact to product quality, scope, cost, or schedule. Minimal disruption is likely, and some oversight is most likely needed to ensure that the risk remains low. Mitigation strategies should be considered for implementation when possible.

Appendix B – Findings Log



- The complete Findings Log for the BES Project is provided in a separate file.

Appendix C – Acronyms and Glossary



Acronym	Definition
APD	Advance Planning Document
ASI	Application System Integrator
BES	Benefits Eligibility Solution
CCWIS	Comprehensive Child Welfare Information System
CM	Configuration Management
CMMI	Capability Maturity Model Integration
CMS	Center for Medicare and Medicaid Services
CR	Change Request
DDI	Design, Development and Implementation
DED	Deliverable Expectation Document
DHS	Hawaii Department of Human Services
DLV	Deliverable
E&E	Eligibility and Enrollment
EA	Enterprise Architecture
ECM	Enterprise Content Management (FileNet and DataCap)
ESI	Enterprise System Integrator (Platform Vendor)
ETS	State of Hawaii Office of Enterprise Technology Services
FIPS	Federal Information Processing Standard
HIPAA	Health Information Portability and Accountability Act of 1996
IDM	Identity and Access Management (from KOLEA to State Hub)
IEEE	Institute of Electrical and Electronics Engineers
IES	Integrated Eligibility Solution
ITIL	Information Technology Infrastructure Library



Appendix C – Acronyms and Glossary

Acronym	Definition
IV&V	Independent Verification and Validation
KOLEA	Kauhale On-Line Eligibility Assistance
M&O	Maintenance & Operations
MEELC	Medicaid Eligibility and Enrollment Life Cycle
MEET	Medicaid Eligibility and Enrollment Toolkit
MOU	Memorandum of Understanding
MQD	Hawaii Department of Human Services MedQuest Division
NIST	National Institute of Standards and Technology
OE	Operating Environment
OIT	Department of Human Services Office of Information Technology
PIP	Performance/Process Improvement Plan
PMBOK®	Project Management Body of Knowledge
PMI	Project Management Institute
PMO	Project/Program Management Office
PMP	Project Management Plan
QA	Quality Assurance
QM	Quality Management
RFP	Request for Proposal
ROM	Rough Order of Magnitude
RMP	Requirements Management Plan
RTM	Requirements Traceability Matrix
SEI	Software Engineering Institute
SLA	Service-Level Agreement
SME	Subject Matter Expert

Appendix C – Acronyms and Glossary



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

Appendix D – Background Information



Systems Modernization Project

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

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

Systems Modernization IV&V Project

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

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

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

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

Appendix D – Background Information



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

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

PCG's Eclipse IV&V® Technical Assessment Methodology

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

IV&V Assessment Categories for the BES Project

- | | |
|--|------------------------------|
| • Project Management | • Security and Privacy |
| • Requirements Analysis & Management | • Testing |
| • System Design | • OCM and Knowledge Transfer |
| • Configuration and Development | • Pilot Test Deployment |
| • Integration and Interface Management | • Deployment |



Solutions that Matter

	Project delays and disruption in DHS operations may occur if ASI communications with DHS regarding key (urgent/critical sensitive) project information does not improve.	Info	Finding - Risk	10/28/2019	Project Management	IVV has observed that ASI communication to DHS regarding key project information is at times insufficient and/or delayed. Recent examples include: DHS reported that changes to the JAD calendar are being made by the ASI without notifying stakeholders - PMO and BES Project Team did not receive sufficient clarity or notification about challenges impacting the previously planned October MDSM Release. The topic was discussed at hoc during the 8/26/2019 ASD Weekly Status Meeting (see Moving Minutes from Q2 Status Report 8/28/2019 and project Action Item #939) - concern that the project is maintaining multiple action item logs, which could create confusion. Not all ASD team were aware there were separate logs and are currently reviewing to merge as much as possible into the main project action item log. 7/15/2020 - the Release 3.1 Lessons Learned action plan identified several areas where communication could improve. The ASI is currently working with DHS to develop an action plan to address the communication issues along with the other areas that were identified for improvement. 6/10/2020 - During June, IVV noted a lack of communication regarding deliverable submissions. Although the ASI is required to notify DHS when deliverables are submitted, this did not always occur (e.g., BES Optimization updates). When brought to the ASI's attention, this was corrected. IVV also notes that the ASI has updated their Communications Plan to address changes resulting from the BES Optimization. IVV will continue to monitor this finding to ensure that the process is consistently followed. 05/27/2020 - There continues to be a lack of timely communication between the ASI and DHS PMO. During May, IVV noted the following: The ASI published changes to their Key Personnel without providing the DHS PMO notice or prior approval as documented in the agreement. The ASI was scheduled to deliver the updated Organization Chart and Communication Plan to DHS on 5/15/20. In a weekly status meeting on 5/19/20, DHS was informed that the delivery date was changed to 6/1/20. 04/29/2020 - During the 2/26/20 status meeting, the ASI stated their intention to update the Communications Plan. The ASI delayed the delivery of the updated Communication Plan to DHS to address the additional changes necessitated by the COVID-19 pandemic. The ASI stated the updated Communications Plan will be delivered by 4/30/20 for DHS to review. As the project development activities shift to eWork, DHS is concerned about the lack of transparency around their progress and details of what they are working on. IVV will revisit this risk with the ASI and DHS in May but maintains this is a medium risk to the project as of the 08/31/2020 - There were no substantive changes to this finding reported for August. The latest project schedule anticipated this to be completed by 8/25/2020; however the work is not complete. 7/13/2020 - The ASI and DHS continued this effort during the reporting period. Per the latest project schedule, this is anticipated to be completed by late August 8/15/2020. With the number of requirements still remaining to be split being limited, IVV has reduced the priority of this finding to Low. 6/10/2020 - The ASI and DHS continue the effort to break down the requirements into singular, traceable, and testable requirements by streamlining all partially met requirements, and to request and obtain approval from DHS via Controlled Correspondence (CC) DHS reports that this effort is still not completed with the ASI, and that they continue to work towards agreement. IVV will continue to monitor the project's progress towards finalization of requirements. 05/13/2020 - The ASI and DHS continued the effort to break down the requirements into singular, traceable, and testable requirements by eliminating all partially met requirements, and to request and obtain approval from DHS via Controlled Correspondence process. This activity is behind schedule, it was planned to be complete by the end of April, and the needed completion date is currently unknown. The latest interim project schedule published by the ASI incorrectly states this activity as being completed, however per DHS, this activity is not completed. IVV will continue to monitor the status of this important requirements management activity during May. 03/11/2020 - The ASI is continuing its efforts with DHS BES30 to break down the requirements into singular, traceable, and testable requirements to eliminate all partially met requirements. Per the latest interim schedule, this activity was scheduled for completion by March 11, 2020; however it was not completed at the end of the month. IVV will continue to monitor in April. 02/29/2020 - IVV is aware that the ASI has commenced efforts with DHS BES30 to break down requirements into	ASAP	4	4	Med	Open	08/27/2020 - The ASI has made changes to the format and content of the project status report to address DHS concerns for the report and to weekly status meeting to ensure the ASI is meeting the status report to DHS without much discussion or elaboration. DHS leadership has stated they fail to see the value in this method and have asked the ASI to explore ways to encourage productive conversations during the meeting. DHS has also requested the status report include longer tables and suggested combining the schedule meeting with the project status meeting. DHS also expressed concern that the project is maintaining multiple action item logs, which could create confusion. Not all ASD team were aware there were separate logs and are currently reviewing to merge as much as possible into the main project action item log. 7/15/2020 - the Release 3.1 Lessons Learned action plan identified several areas where communication could improve. The ASI is currently working with DHS to develop an action plan to address the communication issues along with the other areas that were identified for improvement. 6/10/2020 - During June, IVV noted a lack of communication regarding deliverable submissions. Although the ASI is required to notify DHS when deliverables are submitted, this did not always occur (e.g., BES Optimization updates). When brought to the ASI's attention, this was corrected. IVV also notes that the ASI has updated their Communications Plan to address changes resulting from the BES Optimization. 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With the number of requirements still remaining to be split being limited, IVV has reduced the priority of this finding to Low. 6/10/2020 - The ASI and DHS continue the effort to break down the requirements into singular, traceable, and testable requirements by streamlining all partially met requirements, and to request and obtain approval from DHS via Controlled Correspondence (CC) DHS reports that this effort is still not completed with the ASI, and that they continue to work towards agreement. IVV will continue to monitor the project's progress towards finalization of requirements. 05/13/2020 - The ASI and DHS continued the effort to break down the requirements into singular, traceable, and testable requirements by eliminating all partially met requirements, and to request and obtain approval from DHS via Controlled Correspondence process. This activity is behind schedule, it was planned to be complete by the end of April, and the needed completion date is currently unknown. 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41	Due to a lack of clarity regarding "Partially Met" requirements in design artifacts, full traceability of requirements may be compromised, and all requirements may not be fully met.	Warn	Finding - Risk	9/23/2019	Requirements Analysis & Management	Requirements are listed in design artifacts as "Partially Met." With hundreds of planned design artifacts, it is unclear how complete traceability for each requirement will be accomplished within the design artifacts and ALM. Although the ASI has developed a method of splitting requirements in ALM, the process does not address the management and traceability of "one-to-many" relationships (i.e., where a requirement is satisfied by multiple functions or functions).	If requirements are not completely traced throughout the SDLC, it is may result in missing functionality and reduced scope.	Determine a requirements management and design artifact that provides full accountability of where each and 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.	QA 2019	4	3	Low	Open	08/31/2020 - There were no substantive changes to this finding reported for August. The latest project schedule anticipated this to be completed by 8/25/2020; however the work is not complete. 7/13/2020 - The ASI and DHS continued this effort during the reporting period. Per the latest project schedule, this is anticipated to be completed by late August 8/15/2020. With the number of requirements still remaining to be split being limited, IVV has reduced the priority of this finding to Low. 6/10/2020 - The ASI and DHS continue the effort to break down the requirements into singular, traceable, and testable requirements by streamlining all partially met requirements, and to request and obtain approval from DHS via Controlled Correspondence (CC) DHS reports that this effort is still not completed with the ASI, and that they continue to work towards agreement. IVV will continue to monitor the project's progress towards finalization of requirements. 05/13/2020 - The ASI and DHS continued the effort to break down the requirements into singular, traceable, and testable requirements by eliminating all partially met requirements, and to request and obtain approval from DHS via Controlled Correspondence process. This activity is behind schedule, it was planned to be complete by the end of April, and the needed completion date is currently unknown. The latest interim project schedule published by the ASI incorrectly states this activity as being completed, however per DHS, this activity is not completed. IVV will continue to monitor the status of this important requirements management activity during May. 03/11/2020 - The ASI is continuing its efforts with DHS BES30 to break down the requirements into singular, traceable, and testable requirements to eliminate all partially met requirements. Per the latest interim schedule, this activity was scheduled for completion by March 11, 2020; however it was not completed at the end of the month. IVV will continue to monitor in April. 02/29/2020 - IVV is aware that the ASI has commenced efforts with DHS BES30 to break down requirements into
40	The planning and approach of the ASD Release Management practices were identified as an area to improve during early releases.	Warn	Finding - Risk	9/23/2019	Deployment	Release planning does not appear to be sufficient to meet the needs of the project. IVV observed that there was not a RPO Release Manager assigned to manage the first release for KOLIA. IVV observed that there was a lack of timely release planning for the KOLIA Release, and that communications regarding the release were inconsistent, ineffective, and inaccurate. IVV is unaware if a Release Plan has been fully developed to clarify active details of the release, including timing of detailed tasks and activities, documentation updates, configuration item updates, and risks and responsibilities of all resources involved from the ASI and DHS.	Insufficient release management processes can lead to implementation schedule delays and poor release quality if not managed properly. Insufficient release management processes can also lead to configuration challenges when contents of a release are not well documented. Low quality and/or failed releases could negatively impact system user acceptance and project stakeholder confidence in the solution. Additionally, poor release planning and communication may result in the disruption of business operations.	- Assign a Release Manager to manage all details of planned releases. 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 tasks communications, and back end procedures should they be necessary. - Ensure that release planning includes all deliverables within a release, in addition to the software development efforts. - Update the Release 3.1 Lessons Learned action plan to include owners and due dates.	OCT 2019	3	2	Low	Open	08/31/2020 - Although UAT for Release 3.1 was completed in early July, the associated deliverables have either not been delivered or not been accepted more than 6 weeks later. Release planning needs to account for the deliverables associated with a release in addition to the software development activities. The ASI conducted a third Release 3.1 Lessons Learned activity on 8/17/20, and delivered an Action Plan on 8/17/20, however the plan does not include owners or due dates for the planned improvements. 07/13/2020 - Release 3.1 completed UAT testing, however the ASI is still working to complete development of the majority of the associated documentation deliverable needed to implement the release effort. A Lessons Learned activity took place on 7/13/2020 and 7/18/2020 to determine what went well and what can be improved upon for future releases. There were 36 total items reviewed, 11 of which fell into the "Can be improved upon" category. 06/26/2020 - No BES releases were accomplished in June. The scope of R3.1 was reduced in mid-June, as some of the originally planned SSP component tasks were delayed to R3.2. R3.1 is currently scheduled for completion on 7/14/2020 with the BES Card Inventory Module (see Card Inventory functions, which are currently planned for R3.2). However, IVV notes that several R3.1 pre-requisite deliverables requiring updates based on SDAP have not yet been delivered and/or are not yet approved by DHS, and the R3.1 UAT efforts have been delayed. The new tasks being implemented by the ASI could potentially help to improve the release management function. IVV will continue to monitor the ASI and DHS activities related to this important first release for BES. 05/12/2020 - The changes to this finding in May, while there is currently a KOLIA MDSM release (R2.3.2.M) planned for June, the first BES 320 release is scheduled for August 2020. IVV will continue to monitor. 04/30/2020 - IVV validates that no new MDS or DDS releases were performed during the month. IVV will continue to monitor, as it is anticipated that some DDS release changes will be made as the project gets closer to the next BES releases, planned to occur in June 2020. 03/11/2020 - IVV validates that as the new M and O DDS releases were performed during March. IVV will continue to monitor, as it is anticipated that some DDS release changes will be made as the project gets closer to the next BES releases. 02/25/2020 - IVV validates that the ASI still has not yet performed a BES release, however the ASI has more successfully accomplished two releases for KOLIA MDS. IVV will continue to monitor, as it is anticipated that some DDS release changes will be made as the project gets closer to the next BES releases.
38	Due to the sequencing of JADs addressing Workflow in 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.	Info	Finding - Risk	8/29/2019	System Design	ASD JAD sessions are currently divided into two functional areas (Portal, Admin Appeals, Core, Financial, etc.) and have been ongoing since approximately March 2019. Workflow/ASK's have yet to begin. Currently, when functional design discussions involve a workflow/ASK, the discussion is tabled because the ASI has yet to define how the workflow/ASK will be implemented. The ASI has stated that once the workflow/ASK functionality is defined, they will go back and update the existing designs to include the functionality.	Stopping or putting on hold design and process flow discussions during JADs can result in an incomplete understanding of future processes. Uniformed design decisions could lead to significant rework, confusion among SME's and the ASD project team, organizational analysis discussions, and a poor design. Further, if DHS is asked to sign off on designs that lack clear workflow/ASK functionality, they could be signing off on a poor or incomplete design.	- Ask work quickly to define how the workflow/ASK functionality will work. - Introduce SME's to workflow/ASK functionality and integrate into system designs.	ASAP	4	4	Med	Open	08/31/2020 - The most recent updates for this reporting period: 07/13/2020 - The JAD sessions planned to be conducted in July 2020 (per the ASI B.3 Project Schedule dated 7/17/2020), however they have been delayed and are planned date has not been published. 06/10/2020 - IVV has no material updates for this finding in June, as the schedule has not yet been finalized. 05/27/2020 - The ASI stated efforts are being made to identify design gaps due to workflow functionality being tabled during some JAD sessions. The ASI has also stated their intention to address these gaps in a high-faith as more implementation details become available. As details become available, IVV will update this finding. 04/20/2020 - As part of the BES Optimization re-design effort, the ASI is adjusting the project schedule to ensure Workflow is designed across the BES solution consistently. This risk will remain open until IVV receives/ reviews the project artifacts. 03/12/20 - 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 BES is unknown. IVV will review plans for the revised BES Optimization effort, specifically as they pertain to JADs, once they become available. 02/27/2020 - The project continues to work with the ASI to negotiate the terms and scope of the BES Solution Optimization. At this time, the plan for how Workflow will be incorporated into JADs is unknown. IVV will review plans for the revised BES Solution Optimization effort, specifically as they pertain to JADs, once they become available. 01/15/2020 - In the January reporting period, the IVV Team reviewed the existing BES Optimization proposal documentation and met with the DHS PMO to discuss. It is understood that work continues to further refine the BES Optimization details. IVV does not have the information needed regarding scope, architecture, requirements, schedule, cost, and resourcing to fully determine the impact of the BES Optimization to the project and DHS. Therefore, updates and ratings are suspended for this finding until additional information is provided to IVV. IVV will continue to monitor the progress of the BES Optimization, and will reaffirm this finding in February. 12/11/2019 - In the December reporting period, the IVV Team reviewed the existing BES Optimization proposal documentation and met with the DHS PMO to discuss. It is understood that work continues to further refine the BES Optimization details. IVV does not have the information needed regarding scope, architecture, requirements, schedule, cost, and resourcing to fully determine the impact of the BES Optimization to the project and DHS. Therefore, updates and ratings are suspended for this finding until additional information is provided to IVV. IVV will continue to monitor the progress of the BES Optimization, and will reaffirm this finding in February.
29	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.	Info	Finding - Issue	5/28/2019	Project Management	Some platform and BES system architecture decisions have yet to be made and socialized to the project. For example, the ASI and DHS have stated that they have reached agreement that the project will move forward with implementing two Social instances (one for KOLIA, one for BES), but this is not currently reflected in the project design log or the project design log. remains unclear if the details of the release for this decision or the plan for integrating the two instances post go-live have been thoroughly vetted and/or documented. Further, there may be some uncertainty around whether all environments (including KOLIA and BES production) will be moved to the cloud.	The current project architecture and design should be as representative and inclusive of all known future solution plans as possible. As an example, if KOLIA and BES are to move to a single instance or Social in the future, planning for that integration should be incorporated into the project now. If not, significant future changes are not planned for the system, the project is likely to be increased complexity, rework, and costs when integrating the two systems in the future.	- The ASI continue to document the architectural details in the B-12 System Architecture Deliverable and if possible, review draft content with DHS and IVV. DHS request ASI perform due diligence in any Social in the future, planning for that integration should be incorporated into the project now. If not, significant future changes are not planned for the system, the project is likely to be increased complexity, rework, and costs when integrating the two systems in the future.	ASAP	4	5	High	Open	08/27/2020 - In August, DHS is considering changing the cloud platform from Azure to Google and a Change Request is currently in progress. The ASI appears to be making plans to migrate their existing environment to the new platform as the ASI subcontractor (partner) is currently working on the new system using their own environments. The ASI is making some progress in the communication of architecture decisions. The new ASD architect (lead) weekly status meeting which the project provides ASD to forum to discuss and/or clarify architecture plans and decisions. However, it remains unclear if these architecture plans and decisions are broadly communicated to appropriate stakeholders including the project team. Additionally, project leadership recently clarified the role of the ES2 given the change of platforms from Social to AWS in the cloud; the ES2 will not be responsible for any stand-alone BES environments, only the KOLIA/BES shared services environments. 07/13/2020 - DHS and the ASI have noted some lack of communication around the portal strategy. For example, some stakeholders were unclear whether the portal runtime applications for Mafind and BES30 would be combined and/or replicated in both portals or if they would remain separate. 06/10/2020 - The ASI drafted updates to the B-12 System Architecture Deliverable and performed a walkthrough of the Overview Chapter of the deliverable in late June. As an example, DHS reported that content would be migrate the KOLIA portal to Adobe is imminent. Although the ASI will implement the BES portal on the Library platform, the ASI states that this will be transparent to end-users, presenting a combined application for which the design has yet to be finalized. IVV will continue to monitor this discussion to gain clarity on DHS' portal integration strategy. 06/11/2020 - The BES Architectural details are planned to be documented in the B-12 System Architecture Deliverable and published in a phase. The final iteration of the deliverable is planned to be complete on 08/27/2020. IVV will review the provided documentation as it becomes available. 04/29/2020 - The BES Optimization contract amendment was completed, and it provides high-level architecture information. However, important architectural details are not yet available, once details become available (likely as updates to the B-12 Architecture Plan) IVV will review and provide feedback. 03/25/2020 - DHS continued to work with the ASI to negotiate the terms and scope of the BES contract amendment. Currently, the project is anticipating the possibility of delaying the BES implementation (timelines and reducing the scope (requirements)) in order to stay within the current

