Hawaii Department of Human Services Systems Modernization Project Independent Verification & Validation (IV&V) Monthly Status Final Report

Reporting Month: September 2018

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Executive Summary

Executive Summary
IV&V Project Summary

PCG's IV&V services include assessing the transitions from the incumbent support vendor, KPMG, to DHS' Enterprise System Integrator (ESI), BIAS, and the incoming Application System Integrator (ASI), Unisys; the Benefits Eligibility Solution (BES) project and the Comprehensive Child Welfare Information System (CCWIS) project. This monthly report provides updates on PCG's IV&V activities throughout the reporting month and ongoing IV&V findings and recommendations.

The initial draft of the IV&V Transition Assessment – ESI Maintenance and Operations (M&O) report was provided September 28th, 2018.

Activities related to the ASI transition assessment are shared in this monthly report, however, the final findings and recommendations will be delivered in a standalone report deliverable.

PCG attended the BES kickoff in August 2018. The Joint Application Requirements (JAR) sessions previously scheduled for September 2018 were moved to October 2018 to assure that Department of Human Services (DHS) project participants were prepared and available.

Our activities, observations and recommendations are provided below.

Category	IV&V Observations
IV&V Activities	The IV&V team has begun activities for the ASI transition assessment. IV&V attended BES kickoff activities in August. Subsequent to the kickoff session, BES project startup activities (Joint Application Requirements [JAR] sessions) were moved to commence October 1, 2018.
Transition Assessment – ESI M&O (KPMG to BIAS)	Overall, the ESI is able to maintain the Enterprise Platform but should refine their governance processes to ensure they can continue supporting multiple vendors concurrently. The draft IV&V Transition Assessment - ESI M&O report was provided September 28, 2018. The top five most critical items are: Inefficient communications, Inexperienced or deficient resources, Lack of detailed repeatable processes for shared services, Unclear and/or undocumented Office of Information Technology (OIT) responsibilities, and High number of Enterprise Platform security vulnerabilities. While these opportunities for improvement do not rise to the level of imminent failure, continued operations without improvement will lead to extended incident resolution wait times, potential security breaches, and/or inability to support multiple vendors and shared services.

Executive Summary
IV&V Project Summary

Category	IV&V Observations
Transition Assessment – M&O to ASI (KPMG to Unisys)	The timeframe for the ASI transition was compressed from six months to approximately three months in order to coincide with the end of KPMG's M&O contract. To accommodate the compressed time frame, PCG has temporarily increased IV&V staffing. We have been attending Knowledge Transfer (KT) sessions between KPMG and Unisys. Currently, the project is working from KPMG's Transition Plan; Unisys' draft Transition Plan has been submitted to DHS for review and will become available to the IV&V team for review once it has been approved by DHS. The compressed time frame is the top risk for the transition effort. During that time, Unisys will be able to shadow only seven KOLEA M&O processes. Although Unisys staff participate in all KT sessions and ask appropriate questions – demonstrating a fundamental understanding of the M&O work to be performed – questions about Unisys' ability to fully demonstrate readiness to assume operations remain. This preliminary concern is compounded by reports of outdated and/or incomplete KOLEA documentation, and at times, what IV&V has observed to be a hesitancy of KPMG to share information about some baseline M&O processes related to testing and release management. To mitigate this risk, Unisys' team includes several members from Speridian who were directly involved in the architecture and development of KOLEA. In addition, DHS intends to secure the services of KPMG on a retainer basis for a period of two months following the transition period.
Benefits Eligibility Solution (BES)	The BES project kicked off in August 2018. BES Design, Development, and Implementation (DD&I) activities are scheduled to begin in October 2018.
CCWIS Solution (CCWIS)	The CCWIS project has not yet started. A start date is not yet known.

IV&V Findings and Recommendations

IV&V Findings and Recommendations
Transition Assessment – ESI M&O (KPMG to BIAS)

Status	IV&V Observations
	The IV&V Team released the draft IV&V Transition Assessment – ESI M&O Report. Overall, PCG observed several areas where the ESI is performing well. The ESI is successfully supporting the Enterprise Platform, and MQD workers are pleased with the responsiveness and cordiality of the Help Desk in resolving concerns. There are also areas for improvement.
	The top five most critical findings are:
H	• Inexperienced or deficient resources - ESI staff expertise is lacking in key areas such as the Enterprise Content Management (ECM) solution components and project management, which has resulted in longer than expected resolution times for technical issues and temporary workarounds. If experienced resources are not assigned to these positions, it is likely that the ESI will struggle to deliver responsive M&O and shared services to multiple ASIs. PCG recommends the ESI bring in technical and project management (PM) staff who are experienced and knowledgeable about the technical components utilized by the Enterprise Platform, and planned for BES, to more quickly resolve issues.
H	• Lack of detailed repeatable processes for shared services - the absence of ESI-established governance processes has led to confusion about the platform rules and guidelines, including the designation of vendor access to system environments and components at any given time and the identification of who should be contacted when issues arise. Governance processes are necessary to ensure all platform participants and vendors are aware of and follow the same procedures. If shared services governance is not established soon, the ability of the ESI to provision shared services will negatively affect the ASIs' ability to perform. The ESI should develop a governance structure for shared services to handle multiple vendors involved in maintaining and enhancing the Enterprise Platform, while ensuring that shared services are consistently made available for future ASI(s) developing new applications.

IV&V Findings and Recommendations
Transition Assessment – ESI M&O (KPMG to BIAS)

Status	IV&V Observations
H	• Inefficient communications - The ESI did not develop formal communications protocols or a Communications Plan, which has led to several instances of inefficient/poor communications, especially on the IDM project. Communication primarily occurs during meetings with over 20 attendees who contribute minimally. Meeting minutes are often inaccurate and miss important details of the meetings. Discussions are not always effectively centralized at the project management level and meeting outcomes are not shared with stakeholders in accordance with a Communications Plan. The absence of a Communication Plan can lead to miscommunications, uninformed decisions, and stakeholder confusion/frustration, which could ultimately result in a disruption of the platform environment. PCG has made several recommendations in this report to improve communication through establishing and executing clear and documented communication protocols.
H	• Unclear and/or undocumented OIT responsibilities – OIT roles and responsibilities are not clearly understood, documented, nor executed against. Disagreements have arisen over what should be expected from OIT in the role of the ESI Vendor/Contract Project Manager; including quality management, performance levels, project management best practices, and other areas. Failure to define clear roles, responsibilities, and expectations can lead to confusion, incorrect assumptions, and failure to adequately perform important platform-related activities, which can adversely affect the project and impact project schedule and budget. PCG recommends that DHS clarify roles and responsibilities for OIT, the Project Management Office (PMO), and individual staff within those organizations who are involved with multi-vendor management. While the recent addition of the DHS Enterprise Officer is a move in the right direction, the need to clarify responsibilities and establish accountability remains.

IV&V Findings and Recommendations
Transition Assessment – ESI M&O (KPMG to BIAS)

Status	IV&V Observations
H	• High number of Enterprise Platform security vulnerabilities[1] – thousands of vulnerabilities exist in the Enterprise Platform environment, including the production and non-production servers. A significant portion of these threats have been tied to outdated software versions that the ESI has discussed with DHS to determine a prioritized roadmap for resolving these concerns. While these threats are often counted per instance (i.e., the same threat may be present across many CPUs, servers, etc.) they pose critical vulnerabilities in the platform environment and should be addressed immediately. An on-going remediation effort has successfully reduced the number and types of vulnerabilities; nevertheless, these are not being remediated quickly enough to stay ahead of security threats. The combination of high volume and critical/high severity vulnerabilities in both the production and non-production environments causes this to be a high exposure issue. PCG recommends that the ESI work with DHS to establish an aggressive and thoughtfully planned schedule to resolve the outstanding threats.
	Detailed descriptions of all the ESI M&O assessment findings are presented in the ESI M&O Transition Report, which concludes IV&V activity in relation to the ESI M&O transition.

[1]Note: Following the close of the reporting period, PCG received additional information indicating that the ESI has been working with DHS InfoSec, Med-QUEST Division (MQD), and the PMO to establish a prioritized roadmap for the vulnerabilities, and is implementing a Vulnerability Management System. PCG will evaluate this additional information and update the Transition Assessment as appropriate.

IV&V Findings and Recommendations
Transition Assessment – M&O to ASI (KPMG to Unisys)

Status	IV&V Observations
(n/a[2])	The ASI M&O transition schedule has been compressed from six months to approximately three months to coincide with the end of KPMG's M&O contract. Once KPMG's M&O contract ends, KPMG will be available for questions, follow-up, or remedial training for two months post-contract end date on a retainer basis. This is the top risk for the transition. Based on IV&V's initial observations, it is highly likely that there will not be adequate time for the ASI to fully demonstrate readiness for assumption of operation, nor to validate that the efficacy of turnover is satisfactory. Further, during KT sessions, participants reported instances of KOLEA application documentation being incomplete, out-of-date and often disjointed (i.e., a documentation update provided via system enhancement/modification was not found in the master set of system documentation). This increases the risk of instability in the application should the transition be incomplete and/or ineffective. No specific artifacts were cited; this was a general observation based on participant comments. Nevertheless, it is not uncommon for application documentation to be out of date and PCG will seek further details as available to aid DHS in mitigating this risk. A series of targeted Knowledge Transfer (KT) sessions have been developed and delivered by KPMG to Unisys staff. Many of Unisys staff are Speridian partners who were involved in the architecture and development of KOLEA, and have demonstrated a fundamental understanding of KOLEA, asking appropriate questions. Due to their existing knowledge of the KOLEA application, they have focused on changes or differences between the application as they knew it and how it exists currently.
(n/a[2])	A second risk was identified related to the scheduling of KT sessions by Unisys. Sessions were initially scheduled with little advance notification to attendees – usually the evening immediately prior to the session and sometimes the same day as the session. This was subsequently mitigated with Unisys' delivery of a finalized knowledge transfer plan (i.e., schedule of activities) and invites for all sessions. IV&V inquired as to the steps being taken to afford Unisys the opportunity to run the system before the KPMG contract ends. As reported to IV&V by the Unisys M&O Operations Manager, Kal Raman, the Unisys plan includes shadowing KPMG staff in the execution of seven key processes. There is insufficient time available to shadow all M&O processes.

IV&V Findings and Recommendations
Transition Assessment – M&O to ASI (KPMG to Unisys)

Status	IV&V Observations
(n/a[2])	Most of IV&V's observations are preliminary concerns requiring additional evidence and/or scrutiny. Some of these concerns relate to the availability and transferability of necessary licenses to the ASI, access to the HP Application Lifecycle Management (ALM) tool, environmental concerns, and whether Unisys staff were asking process-related questions. IV&V relayed a preliminary concern that the ASI (Unisys) was developing a "hero dependent" culture whereby the knowledge and proficiency was retained in specific individuals rather than documented for all team members; and the corresponding risk to M&O performance should specific individuals leave the project. Based on interviews with Unisys, the project is mitigating these potential risks by having multiple Speridian team members, and by having both Unisys and Speridian staff attend KT sessions. This preliminary concern was subsequently closed by PCG.

[2]Note: Finding and Recommendation status for the M&O to ASI Transition will be included in the standalone ASI Transition Assessment report.

IV&V Findings and Recommendations
Benefits Eligibility Solution (BES)

Jul	Aug	Sep	IV&V Observations
n/a	L	L	The BES project kicked off in August 2018. DDI will commence in October 2018 with JAR sessions. A number of Deliverable Expectation Documents (DEDs) were delivered to DHS in August 2018. IV&V was not included in the review process, but has requested the DEDs for review. Initially, PCG attributes this oversight to project start-up coordination disconnects, and will continue to observe the BES project to assure that IV&V is properly included and involved.

Risk Assessment Priority Rating Legend							
n/a	Not Applicable	L	Low – The current risk to overall project quality is low	M	Medium – This category presents a risk to overall project quality	H	High – This category presents a substantial risk to overall project quality and requires immediate attention

IV&V Status

IV&V Engagement Status

IV&V Engagement Area	Status	Comments
IV&V Budget	🟢	
IV&V Schedule	🟡	The IV&V schedule is slightly compressed due to the shortened time frame for the ASI Transition Assessment and the overlap with the BES project. IV&V is mitigating this risk by infusing the team with additional IV&V analysts temporarily.
IV&V Deliverables	🟡	The new cadence for monthly status reports and CIO debriefings is being refined. The ASI M&O Transition Assessment will be required sooner than anticipated due to the shortened ASI transition time frame.
Centers for Medicare and Medicaid Services (CMS) IV&V Progress Reports	🟢	BES DDI actively begins in October 2018. The first quarterly CMS Eligibility and Enrollment (E&E) IV&V Progress Report is expected at the end of December 2018.
CMS Milestone Reviews	n/a	The first CMS Milestone Review date has not yet been determined.
IV&V Staffing	🟢	IV&V has infused the team temporarily with additional IV&V analysts to respond to the shortened time frame for the ASI transition.
IV&V Scope	🟢	

Engagement Rating Legend						
n/a	Not Applicable	L	Green – The engagement area is within acceptable parameters	M	Yellow – The engagement area is somewhat outside acceptable parameters.	H	Red – This engagement area poses a significant risk to the IV&V project quality and requires immediate attention

IV&V Activities

- IV&V activities completed in monthly reporting period:
    - Draft Transition Report - ESI M&O
    - ASI Transition observations
    - Conducted interviews with key ASI stakeholders
    - Reviewed in progress transition deliverables and provided feedback to DHS

- IV&V work in progress in monthly reporting period:
    - Attend ESI project meetings (see Additional Inputs pages for details)
    - Attend ASI onboarding activities and KT sessions (see Additional Inputs pages for details)

- Planned IV&V activities for next reporting period:
    - Assessment of ASI transition activities
    - Transition Report – ASI M&O
    - Attend BES JAR sessions
    - Review BES artifacts and deliverables

Deliverables Reviewed

Deliverable Name	Deliverable Date	Version
KOLEA ASI Turnover Overview/Knowledge Transfer Plan		V 2.1

Additional Inputs

- Informal Interviews:

    - BIAS, Chris Lam – SharePoint governance – 9/12
    - Unisys, Kalyan Raman – Unisys Transition Planning – 9/19

- Meetings Attended/Observed:

    - M&O Governance – ESI Knowledge Sharing with Unisys – 9/4
    - KOLEA ASI Transition Kick-Off – 9/11
    - BES Project / Unisys Orientation Session – 9/13
    - MQD Business Process Knowledge Transfer Meetings (9/4, 9/5, 9/7)
    - Mail Services Re-Architecture Project Charter Review Meeting
    - Weekly BIAS Project Status Report Out Meetings - recurring
    - Weekly BIAS Platform M&O Status and Whiteboard Meetings - recurring
    - Weekly Change Advisory Committee (CAC) Meetings - recurring
    - Weekly BIAS Platform M&O Scheduling meetings - recurring
    - Weekly Platform Security Meetings - recurring
    - Weekly DHS OIT Project Meetings – recurring (series started on 9/18)
    - KOLEA ASI Turnover Weekly Status Meeting – recurring

Additional Inputs

- KT Sessions Attended/Observed:

    - KOLEA Application Overview – 9/14
    - SOA/Interfaces – 9/18
    - Liferay Transition – 9/19
    - Tier 2 Help Desk and Change Management – 9/19
    - Configuration Management – 9/20
    - Oracle Business Intelligence Enterprise Edition (OBIEE – Reporting) – 9/25
    - Batch Job Operations – 9/26

- Project Artifact Inputs:

    - Unisys Best And Final Offer (BAFO) Proposal
    - KT Session Slides
    - Meeting agendas and minutes
    - Windows Upgrade Charter
    - Consent Management Charter
    - Consent Management High Level Architecture
    - Platform Vendor RFQ

Appendices

Appendix A – Risk Identification Report

- The complete Risk Identification Report (or Log) for the ESI Transition Assessment is included with PCG's draft ESI Transition Assessment Report.

- The complete Risk Identification Report (or Log) for the ASI Transition Assessment will be included with PCG's draft ASI Transition Assessment Report.

- No Risks or Issues have been formally identified to date for the BES DD&I project.

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Appendix B – 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
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
IAR	Initial Assessment Report
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
IV&V	Independent Verification and Validation

Appendix B – Acronyms and Glossary

Acronym	Definition
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	State of Hawaii Office of Information Technology
PAR	Periodic Assessment Report
PMBOK®	Project Management Body of Knowledge
PMI	Project Management Institute
PMO	Project/Program Management Office
QA	Quality Assurance
QM	Quality Management
RFP	Request for Proposal
RMP	Requirements Management Plan
RTM	Requirements Traceability Matrix
SEI	Software Engineering Institute
SLA	Service-Level Agreement
SME	Subject Matter Expert
SOA	Service Oriented Architecture
SOW	Statement of Work, Scope of Work
VVP	Software Verification and Validation Plan
XLC	Expedited Life Cycle

Appendix C – Project Background

Systems Modernization Projects

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

- ESI or Platform Vendor – provides the shared technology and services required for multiple Application DDI 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 enhancing the currently implemented Medicaid E&E Solution (BES Project) 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.

Appendix C – IV&V Project Background

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

IV&V is responsible for:

- Evaluating efforts performed by the Projects (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 vendors 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