OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

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February 25, 2019

The Honorable Ronald D. Kouchi,
  President, and
  Members of The Senate
Twenty-Ninth State Legislature
Hawaii State Capitol, Room 409
Honolulu, Hawaii 96813

The Honorable Scott K. Saiki,
  Speaker, and
  Members of The House of Representatives
Twenty-Ninth 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 (IV&V) reports to the Legislature within ten days of receiving it, please find attached the report the Office of Enterprise Technology Services (ETS) received for the State of Hawaii Department of Accounting and General Services (DAGS) and ETS' HawaiiPay Project.

In accordance with HRS section 93-16, this report may be viewed electronically at http://ets.hawaii.gov (see "Reports").

Sincerely,

DOUGLAS MURDOCK
Chief Information Officer
State of Hawai'i

Attachment (2)

HawaiiPay Project
Department of Accounting and General Services (DAGS)

IV&V Monthly Status Report - **FINAL**

For Reporting Period: December 1 – 31, 2018

Draft submitted: January 17, 2019
Final submitted: February 12, 2019

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Overview

- Executive Summary
- IV&V Findings and Recommendations
- IV&V Status
- Appendices
  - A – IV&V Findings Log & Priority Ratings
  - B – Standard IV&V Inputs
  - C – IV&V Details

Executive Summary

All indications currently point to a successful Group 3 go-live and January 4 payroll run. The project has successfully mitigated may risks/issues and IV&V has subsequently closed 3 risks/issues during this reporting period. IV&V remains concerned with potential challenges related to the introduction of new W2's (and other new end of year processes), user provisioning (security) concerns, and final turnover of the system to the state.

Oct	Nov	Dec	Category	IV&V Observations
(M)	(M)	(M)	Communications Management	The project continues to increase efforts for effective communications to Group 3. HIP and UH help desk seem to have made good efforts to mitigate the risk of user confusion due to the UH Multi-Factor Authentication (MFA) rollout occurring in parallel with Group 3 go-live. However, IV&V continues to track the risk that Project communications to external entities could prove ineffective. Most recently the project has reported that, despite attempts to increase understanding of new payroll processes to Group 3 stakeholders, some stakeholders seem to struggle (at times) to fully understand them. For example, Group 3 continues to make change requests to outbound interfaces without a full understanding of the purpose and downstream impacts of outbound interfaces they consume.
(L)	(M)	(L)	Contract Management	The project has recently shifted responsibility for requirements tracking and validation from DAGS Contract division to the HawaiiPay team. DAGS contracts office will play an advisory role in confirming contract requirements have been met. Hence, IV&V is reducing this category risk to a Low.

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Executive Summary (cont'd)

Oct	Nov	Dec	Category	IV&V Observations
(M)	(M)	(L)	Cost and Schedule Management	The Project and UH/DOE have made considerable progress toward mitigating readiness risks. All indications currently point to a successful Group 3 go-live and January 4 payroll run. UH/DOE have stepped up efforts to collaborate with the project to resolve any outstanding outbound interface and any remaining issues. The Project continues to prove adept at quickly fixing bugs and quickly identifying and resolving issues before they impact project schedule and cost. While the realization of readiness risks did impact the project, the project team was able to execute mitigation steps (mostly through late night and weekend work) to avert delays to the revised Group 3 schedule. IV&V remains concerned with potential challenges related to UH challenges with outbound interfaces, payroll functional team staffing challenges, and new W2 and end of year processing requirements, that could impact project cost and schedule. While risk remains in this area, given the progress made, the risk exposure has been reduced to Low..
(L)	(M)	(L)	Human Resources Management	Project help desk capacity planning, metrics tracking, and other efforts, seems to have proved successful as help desk statistics indicate user needs are being effectively and efficiently addressed despite increased Group 3 call volume. The project team seems to have mitigated yearend activity team capacity concerns mostly through weekend and late night work. IV&V continues to monitor concerns over some payroll functional team staffing challenges but has reduced this category risk to a Low.
(L)	(L)	(L)	Knowledge Transfer	The project continues to make progress toward operational awareness and readiness for turnover. Efforts are being made by the state to identify tasks required for payroll and individual assignment of payroll duties. Similar SI efforts are progressing for Phase 1 closure as well as Phase 2 planning, and the SI is continuing focused turnover sessions with state technical resources.
(L)	(L)	(L)	Operational Preparedness	IV&V completed an assessment that focused on the overall readiness for Group 3. IV&V did not discover any critical issues or concerns with the processes and methodologies the project utilized to be prepared for the Group 3 Go Live.

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Executive Summary (cont'd)

Oct	Nov	Dec	Category	IV&V Observations
L	L	L	Organizational Change Management	The project continues to be proactive with their OCM communications but still has little control over Group 3 OCM communication/activities. IV&V has logged a preliminary concern as UH has decided to produce their own customized pay statements which could contradict HIP pay statements and confuse users as well as introduce a legal risk to the state. Ineffective execution of OCM by departments could lead to customer/employee frustration, excessive HIP help desk calls, and ultimately reflect negatively on the project.
M	M	M	Project Management and Organization	The project team proved effective in overcoming the challenges of limited resources to effectively support/manage year-end tasks through detailed planning and working long hours (including weekends). The decision to implement an ECMB is currently on hold until DAGS leadership appointment is confirmed (both Comptroller and CIO). PMO has made significant progress toward planning for W2 changes and effective OCM communications to minimize employee confusion over W2 format changes.
M	M	M	Quality Management	IV&V remains concerned that outbound (from HIP to UH/DOE) interface validation continues be a challenge for UH/DOE who seem to struggle to provide timely responses to project provided test file validation activities. Unclear if DOE/UH will require further interface changes going forward. IV&V noted a lack of controls that would help to ensure that the data being submitted by departments is complete. IV&V recommends that the project work closely with the departments to implement processes that will help to ensure the interface data is complete and processed as planned.

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Executive Summary (cont'd)

Oct	Nov	Dec	Category	IV&V Observations
L	L	L	Requirements Management	The project has recently shifted responsibility for requirements tracking and validation from DAGS Contract division to the HawaiiPay team. DAGS contracts office will play an advisory role in confirming contract requirements have been met.
H	H	H	Risk Management	Though the project can assure that individual departments will not be able to access other departments data, IV&V remains concerned that adequate and appropriate controls, related to the segregation of duties, the protection of assets as well as the prevention of fraud, are not in place for the HawaiiPay solution. For example, IV&V remains concerned that DOE user permission requests seem excessive and not in keeping with segregation of duties and the principle of least privilege. The lack of formal security controls continues to leave the project powerless to deny requests for excessive permissions that could expose private data (PII) and increase the risk of fraud and identity theft. IV&V recommends that controls be implemented that are designed to prevent end users from completing systems transactions that are not in the best interest of the State.

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IV&V Findings and Recommendations

For this reporting period, PCG has identified a total of 11 open findings (3 issues, 7 risks, 1 preliminary concern). Of the open findings, 3 are related to Quality Management. IV&V has closed 3 findings in this reporting period. The following graphs breakdown the risks by status, type, and category/priority.

Open Risks/Issues by Finding Type

- Issue: 3, 27%
- Risk: 7, 64%
- Preliminary Concern: 1, 9%

Legend:
- Issue
- Preliminary Concern
- Risk
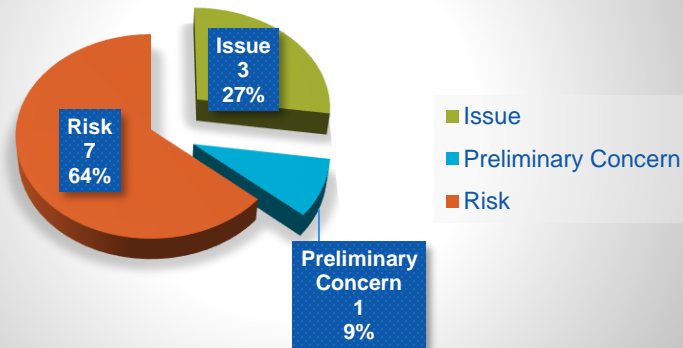
Risk Status Summary

- Open, 11, 33%
- Closed, 15, 46%
- Closed but monitoring, 7, 21%

Legend:
- Closed
- Closed but monitoring
- Open
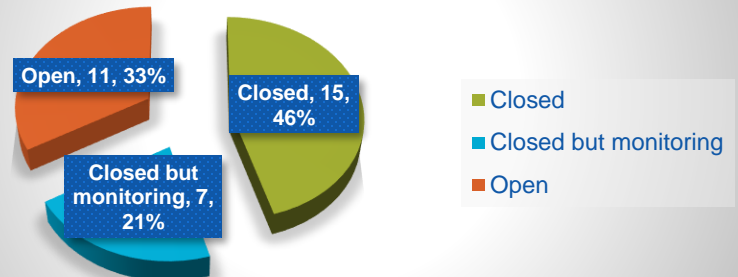
Open Risks/Issues by Category/Priority

Category	Value
Risk Management	1 (High)
Quality Management	3 (Low)
Project Organization & Management	1 (Low), 1 (Medium)
Organizational Change Management	1 (Low)
Knowledge Transfer	1 (Medium)
Cost and Schedule Management	1 (Low)
Contract Management	1 (Low)
Communications Management	1 (Low)

Legend:
- High
- Low
- Medium

Axis: 0, 0.5, 1, 1.5, 2, 2.5, 3

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IV&V Findings and Recommendations (cont'd)

Summary of IV&V Open Risks/Issues Criticality

Category		Finding Title	Criticality
Communications	Risk	**27 – Communications to external entities may be ineffectual**	Low
Contract	Risk	**2 - Non-functional contract requirements not tracked**	Low
Cost & Schedule	Issue	**22 – Lack of departmental readiness could impact project budget/schedule**	Low
Knowledge Transfer	Issue	**23 - Lack of detailed turnover plan**	Med
Risk Management	Risk	**31 - Lack of adequate formal controls related to user access and segregation of duties**	Hi
Project Organization & Management	Risk	**30 - Strategy for data management not finalized**	Low
	Risk	**32 - End of year processing complexity**	Med
Quality Management	Risk	**19 - Inadequate interface development and testing coordination**	Low
	Issue	**25 - Insufficient data validation, checks and balances**	Low
	Risk	**26 - DHRD users' access to shared tables could result in corrupt payroll data**	Low

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Note: P. Concern = Preliminary Concern

IV&V Findings and Recommendations (cont'd)

Communications Management M

#	Key Findings	Criticality Rating
27	**Risk - Communications to external entities may be ineffectual:** While IV&V has observed good efforts by the project to provide reasonable levels of communications to external entities (departments, TPA, banks, etc.), some communication have been misinterpreted or mishandled and have not produced their intended result.	Low

Recommendations	Progress
• Enact overt and persistent efforts to address communications that have proven to be ineffective and with organizations that have known communication challenges.	In progress
• Over-communicate important messages as well as messages that are likely to be missed. For example, multiple emails can be sent to reiterate important messages or restate them in increasingly simple or overt terms.	In progress
• Reassess existing communications and provide further clarification to external entities to ensure clear understanding and provide guidance on future communications.	In progress

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IV&V Findings and Recommendations (cont'd)

Contracts Management (L)

#	Key Findings	Criticality Rating
2	**Risk - Non-functional contract requirements not tracked**: When non-functional requirements are not proactively monitored as the project progresses, there is increased potential that contract performance gaps may be identified too late in the project's timeline resulting in schedule delays or unmet contract requirements. The Requirements Traceability Matrix (RTM) does not include non-functional requirements and the project does not regularly report on contract performance metrics.	Low

Recommendations	Progress
• Create a checklist of non-functional contract requirements to be satisfied in order to actively monitor and measure progress, and close-out the contract	In progress
• Escalate communications issues between DAGS Contracts office and HawaiiPay	Complete
• Project team assume responsibility for requirements validation and request DAGS contracts office play an advisory role in confirming contract requirements have been met	Complete

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IV&V Findings and Recommendations (cont'd)

Cost and Schedule Management (L)

#	Key Findings	Criticality Rating
22	**Risk** - **Lack of departmental readiness could impact project budget/schedule**: Departments transitioning to the Hawaii Information Portal (HIP) as part of the HawaiiPay project are expected to perform readiness activities and meet specified milestone deadlines. If any department does not transition to HIP by their designated rollout date, the HawaiiPay project schedule and budget could be negatively impacted.	Low

Recommendations	Progress
• Ensure readiness deadlines/milestones are clearly communicated to appropriate stakeholders on a regular basis.	In progress
• Document missed readiness deadlines, communicate the possible consequences of missed deadlines clearly to department leaders in a timely manner to help ensure leadership is not surprised and has ample opportunity to respond and manage the risks.	In progress
• Consider implementing a strategy of over-communication for departments that may have communication challenges.	In progress
• Coordinate regular readiness discussions between HawaiiPay and departments that may have readiness challenges.	In progress

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IV&V Findings and Recommendations (cont'd)

Knowledge Transfer L

#	Key Findings	Criticality Rating
23	**Issue - Lack of detailed turnover plan**: The lack of a transition plan can lead to poor transition planning, important turnover activities can get missed, and can lead to stakeholder confusion since they are left ill-equipped to effectively maintain the system once the vendor has left the project.	Medium

Recommendations	Progress
• Request the SI utilize detailed checklists for turnover to ensure an effective turnover to the state and that nothing is overlooked.	In progress
• The state immediately draft and take ownership of a turnover plan and request the SI review and offer guidance.	In progress
• Assign turnover tasks to individuals and require task signoff by task owners once they validate tasks have been effectively completed.	In progress
• Utilize readiness checkpoints and key performance indicators (KPI's) to monitor readiness effectiveness and report to project leadership. KPI's can be utilized to assure a timely and effective system turnover as well as provide project leadership an opportunity to shore up efforts when turnover efforts are not achieving expected results.	In progress
• Request the SI update relevant documents to ensure an effective turnover to the state for M&O.	In progress

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IV&V Findings and Recommendations (cont'd)

Risk Management   H

#	Key Findings	Criticality Rating
31	**Risk - Lack of adequate formal controls related to end user provisioning and segregation of duties:** The project currently lacks sufficient project security policies to guide, among other things, departmental user permissions. Controls currently exist to ensure departments only have access to their employee's data and the project has made efforts to warn departments about the risks of granting excessive permissions to their users. However, since there is no enforced PoLP policy, the project is currently granting all departmental access requests.	High

Recommendations	Progress
• Create/implement a HIP administrative user agreement for administrative users who are responsible for determining permissions for departmental users. The agreement should assure that administrative users clearly understand their additional responsibilities, security best practices, guidelines, PoLP, segregation of duties, and risks involved with giving users excessive permissions.	In progress
• Formally notify department leadership of requests that appear to be excessive and assure clear understanding of the risks involved; request departments rollback permissions that seem excessive	In progress
• Recommend implementation of controls designed to prevent end users from completing systems transactions that are not in the best interest of the State (see detailed recommendations for risk #31 in the Findings Log)	In progress

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IV&V Findings and Recommendations (cont'd)

Project Management & Organization (M)

#	Key Findings	Criticality Rating
30	**Risk - Strategy for data management not finalized:** Without a finalized data management strategy, data policies and inter-agency agreements may not adequately address the needs of all entities with responsibilities for governing data which may result in ineffective data management and remediation processes.	Low
32	**Risk - End of year processing complexity:** Payroll related end of year processing typically involves a significant number of activities to close out the year. Now that group 3 rollout has been moved to December, the project will be faced with performing unforeseen end of year processes that include combining legacy and HIP data to produce W2 and other reports. Project resources will be further constrained by the additional burden of a major Group 3 release that has already proven to be time consuming and problematic.	Medium

Recommendations	Progress
• Early extensive detailed planning utilizing a consolidated schedule that includes CRT and state activities	In progress
• Work with appropriate DAGS governance processes to develop an over-arching strategy for data management across the departments	In progress
• Work with impacted departments to codevelop and implement data management policies in support of the HawaiiPay solution	In progress

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14

IV&V Findings and Recommendations (cont'd)

Quality Management (M)

#	Key Findings	Criticality Rating
19	**Risk - Inadequate interface development and testing coordination:** The lack of a functioning process and signoff to coordinate both parties regarding the development and comprehensive end to end testing of interfaces may cause unnecessary risk. IV&V has observed many process improvements for coordinating and tracking interfaces in Group 2.	Low
25	**Issue - Insufficient data validation, checks and balances:** Data validation processes and procedures to ensure data accuracy are insufficient and have resulted in data errors during payroll processing.	Low
26	**Risk - DHRD users' access to shared tables could result in corrupt payroll data:** Inadequate controls to manage access to update payroll data by both DHRD and Payroll Division users could result in payroll data corruption.	Low

Recommendations	Progress
• Establish a communications plan and signoff procedure that ensure all parties clearly understand interface testing expectations and signoff that they have the capacity to complete the testing, document defects, re-test and signoff that the interface is fully functional.	In progress
• Establish enhanced validation processes to ensure interface updates are thoroughly validated prior to applying updates to production system data. Validations could include queries to validate all the business rules have been met, i.e. all key data is present, all required dependent data elements are present and contain valid values, etc.	In progress
• Explore methods to secure critical payroll data that DHRD does not need permissions to edit.	In progress

IV&V Status

The activities that PCG performed to inform the IV&V report for the current period are listed below. Upcoming activities are also included. For specifics, see Appendix B – IV&V Standard Inputs.

- IV&V Project Milestones

Milestone / Deliverable Description	Baseline Due Date	Draft Submitted	Final Submitted	Approvals / Notes
IV&V Management Plan (IVVP)	4/6/18	3/18/18	3/29/18	Approved
IV&V Work Plan (Schedule)	4/6/18	3/18/18	3/29/18	Approved
Initial IV&V Assessment	5/9/18	5/18/18	6/8/18	Approved
June IV&V Monthly Status Report (MSR)	5/30/18	7/10/18	7/31/18	Approved
Deployment Audit Report – Grp 2	7/20/18	8/5/18	8/23/18	Approved
IV&V Management Plan (IVVP) Update (v. 3.0)	n/a	8/15/18	8/22/18	Approved
July IV&V Monthly Status Report (MSR)	8/10/18	8/17/18	9/4/18	Approved
End of Go Live Implementation Milestone Report – Grp 2	8/24/18	9/28/18	10/31/18	Approved
August IV&V Monthly Status Report (MSR)	10/5/18	9/7/18	9/10/18	Approved
September IV&V Monthly Status Report (MSR)	10/5/18	10/5/18	10/9/18	Approved
October IV&V Monthly Status Report (MSR)	11/7/18	11/7/18	11/19/18	Approved
November IV&V Monthly Status Report (MSR)	12/7/18	12/5/18	12/13/18	Approved
Deployment Audit Report – Grp 3	12/21/18	12/24/18	1/7/19	
IV&V Management Plan (IVVP) Update (v. 4.0)	TBD			
End of Go Live Implementation Milestone Report – Grp 3	1/18/19	1/18/19		
Final IV&V Monthly Status Report	TBD			
Lessons Learned & Final Recommendations Report	TBD			

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IV&V Status (cont'd)

- **IV&V activities performed during the reporting period:**

  - Attended Monthly Payroll & TLM Modernization Project Executive meeting
  - Attended PCAB meeting
  - Attended Daily Scrums
  - Attended RIO-D meeting
  - Attended HawaiiPay State/CRT Project meeting
  - Project Team Risk Review sessions
  - October IV&V Monthly Status report deliverable and review
  - Attended UH/HawaiiPay meetings
  - Attended DOE/HawaiiPay meetings

- **IV&V next steps in the coming reporting period:**

  - IV&V Monthly Status Report
  - Group 3 Go-Live Implementation Audit report

Appendix A – IV&V Criticality Ratings

This appendix provides the details of each finding and recommendation identified by IV&V. Project stakeholders are encouraged to review the findings and recommendations log details as needed.

See definitions of Criticality Ratings below:

Criticality Rating	Definition
H	A high rating is assigned if there is a possibility of substantial impact to product quality, scope, cost, or schedule. A major disruption is likely and the consequences would be unacceptable. A different approach is required. Mitigation strategies should be evaluated and acted upon immediately.
M	A medium rating is assigned if there is a possibility of moderate impact to product quality, scope, cost, or schedule. Some disruption is likely and a different approach may be required. Mitigation strategies should be 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.

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Appendix B – IV&V Standard Inputs

> *This appendix identifies the artifacts and activities that serve as the basis for the IV&V observations.*

To keep abreast of status throughout the HawaiiPay project, IV&V regularly:

- **Attends the following meetings**
    - Daily Scrum
    - Weekly State/CRT (Joint) Project Meeting
    - Weekly Risks-Issues-Opportunities-Decisions (RIOD) Meeting
    - Bi-Weekly Project Change Advisory Board (PCAB)
    - Monthly Payroll & TLM Modernization Project Executive Meeting

- **Reviews the following documentation**
    - HawaiiPay - Executive Committee Agendas
    - State/CRT (Joint) Meeting Notes
    - State Project Schedule (in Smartsheet)
    - Risks-Issues-Opportunities-Decisions (RIOD) Workbook
    - CherryRoad BAFO and Contract

- **Utilizes Eclipse IV&V® Base Standards and Checklists**

PCG Eclipse IVV
Checklists

Appendix C – IV&V Details

- 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 IV&V 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.

Note: This report is a point-in-time document with findings accurate as of the last day in the reporting period.

Id	Title / Summary	Finding Description	Analysis and Significance	Recommendation	Updates	Category	Type	Priority	Status	Closure Reason	Closed Date	Risk Owner
2	**Non-functional contract requirements not tracked**	If CherryRoad's contract is not actively monitored and tracked, specifically for non-functional requirements, as the project progresses, contract performance gaps may be identified too late in the project's timeline which could result in a schedule delay or unmet contract requirements.	The Requirements Traceability Matrix (RTM) does not include non-functional requirements and the project does not have a separate mechanism for tracking contract performance. The project processes $0 change orders and, therefore, relies on the Change Advisory Board (CAB) to monitor changes to functional requirements. It is unclear how and when non-functional requirements are being met.	• Create a checklist of non-functional contract requirements that CherryRoad must satisfy in order to close-out the contract and actively monitor progress - perhaps begin with the SI's Attachment 8 - Technical Requirements to identify those non-functional requirements to be validated by the state outside of the project's Implementation Tracker. • Project team should take charge of validation.	12/12/19 - The project has shifted responsibility for requirements tracking and validation from DAGS Contract division to the HawaiiPay team. Hence, IV&V is reducing this risk from Medium to Low. 11/28/18 - While a December Group 3 go-live seems to be progressing well, IV&V is still recommending contingency planning to manage any disruption to go-live that could necessitate a schedule and contract extension. IV&V is still unable to determine requirements tracking status as communication challenges between the project and the DAGS Contracts division continue. As contract closure draws near, the project may have challenges validating fulfillment of requirements before contract closure and the SI may have little time to respond to gaps in meeting requirements to the projects satisfaction. 10/31/18 - DAGS Contracts Division is responsible for tracking project requirements. However, IV&V has been unable to get status on requirements tracking as there seems to be communication challenges between the project and the Contracts division. Contracts Division has been unresponsive to some project requests for information, some requests were made over 2 months ago. Recommend project escalate these requests to DAGS leadership. 9/26/18 - No progress. 8/31/18 - IV&V met with the DAGS Contract Lead in August and the project provided IV&V with a spreadsheet created by DAGS contract unit in May 2018 entitled "PR T18 compare to P03 final - incl R5R6R7" which demonstrates the state's efforts in tracking and validating contract requirements separate from the project's design, development, and implementation teams. However, this spreadsheet has not been updated since May 2018 and appears to only include reporting requirements. It is unclear if any of these reporting requirements are considered non-functional. IV&V is awaiting a response from DAGS contracts office. 8/9/18 - While initially the SI reported that non-functional requirement were being carefully tracked by the DAGS contracts office, IV&V has not been provided evidence that this is happening. IV&V is awaiting response from DAGS contracts office. 7/26/18 - CRT provided Attachment 8 - Responses to Technical Requirements - Oracle Confidential file to demonstrate their tracking for non-functional requirements which are not included in the Implementation Tracker.	Contract Management	Risk	Low	Open			Michael
19	**Inadequate interface development and testing coordination**	The lack of a functioning process and signoff to coordinate both parties regarding the development and comprehensive end to end testing of interfaces may cause unnecessary risk.	It is unclear if each party responsible for the complete end to end testing of an interface has the capacity and capability to complete detailed testing. There does not appear to be any method for the project to get assurance that the testing is planned and executed as needed. To date, there seems to be a low volume of feedback from TPAs and approval of TPA readiness lacks rigorous evaluation from the project. For example, contacts for interfaces need to be confirmed as having the appropriate IT skills and availability to perform the required tasks in the project's timeline.	• Establish a communications plan and signoff procedure that ensure all parties clearly understand the expectation related to interface testing and signoff that they have the capacity to complete the testing, document defects, re-test and signoff that the interface is fully functional. • Establish enhanced validation processes to ensure interface updates are thoroughly validated prior to applying updates to production system data.	12/31/18 - Outbound (from HIP to UH/DOE) interface validation continues be a challenge for UH/DOE. Despite project efforts to mitigate this risk, UH/DOE were remise to provide timely responses to project provided test file validation activities. Unclear if DOE/UH will require further interface changes going forward. However, all indications point to a successful inbound interface validation and testing, therefore, IV&V is lowering this risk to a Low. 11/30/28 - IV&V noted that an enhanced process to ensure all the interface processes were refined and the results tested by all appropriate parties, was implemented. This enhanced process helped to ensure that all parties involved were focused on the same key issues. 10/31/18 - A number of issues regarding key interfaces for group 3 remain open. The project noted that DOE has passed functional tests on some of the inbound interfaces, but further testing remains necessary for others. 9/30/18 - CRT has sought to increase the quality of interfaces through full volume in/outbound interface testing, improved interface mechanics, and created sandbox environment for testing.so departments don't have to wait for the next parallel to retest. 9/26/18 - Interface specifications, testing, validation, and defect resolution continues to improve. However, a limited number interface issues continue to crop up. For example, the FAMIS interface has proven to be especially problematic with recurring failures; recent failures stem from missing UAC codes. The project is working with CRT to manage these problems and resolve FAMIS interface issues. Other interfaces have been problematic due to their inherent complexity. For example, HHSC interfaces are run through multiple systems (HIP, ETS mainframe, and DOH) before they are finally consumed by HHSC. CRT has had difficulty mimicking mainframe processing that to produce output the mimic legacy data, but has made recent progress to resolve these issues. Still other interfaces, like EUTF, have proven problematic due to EUTFs limited ability to correct their SSNs due to limitations of their antiquated systems. Finally, the role of interface problem reporting, escalation of defects to CRT, and logging of defects to ServiceCloud (help desk ticketing system) continues to performed HawaiiPay PM which is not typically a PM responsibility. 8/31/18 - IV&V noted that additional resources have been assigned to assist with interface development and testing for DOE and UH. The deployment of these resources appears to have had a	Quality Management	Risk	Low	Open			Ken

Id	Title / Summary	Finding Description	Analysis and Significance	Recommendation	Updates	Category	Type	Priority	Status	Closure Reason	Closed Date	Risk Owner
22	**Lack of departmental readiness could impact project budget/schedule**	Departments transitioning to the Hawaii Information Portal (HIP) as part of the HawaiiPay project are expected to perform readiness activities and meet specified milestone deadlines. If any department does not transition to HIP by their designated rollout date, the HawaiiPay project schedule and budget could be negatively impacted.	Departments transitioning to HawaiiPay have each been assigned to one of three rollout groups and the project's budget and planned coordination activities allow for little to no flexibility in group rollout dates. The HawaiiPay project contract and budget is currently limited to the three rollout groups, departments who have not transitioned by the final rollout group will need to find alternative means for producing payroll outside of HIP. While details of the impact of any department not transitioning to HawaiiPay in their planned group is unclear, there will likely be a negative impact to DAGS and the HawaiiPay project schedule and budget. Any department unable to transition to HIP would likely either request extended use of the existing DAGS mainframe or seek non-DAGS payroll alternatives. If departments are allowed to continue on the mainframe payroll system, the planned benefits of moving off this antiquated and problematic system may not be fully realized. DAGS would then be faced with having to plan for and acquire additional resources for maintaining two payroll systems (HIP and the mainframe system). Departments that opt out of DAGS payroll services altogether would have little time to plan for, procure and implement their own payroll system. Further, DAGS, and/or the HawaiiPay project team, will likely have limited time and resources to assist departments with any alternative as they will be in the midst of HawaiiPay group implementation. IV&V was informed that additional funding for the project will likely not be approved by the state legislature, therefore expansion of HawaiiPay contract scope to accommodate departments that are unable to meet readiness deadlines may not be possible.	• Ensure readiness deadlines/milestones are clearly communicated to department leaders. • Provide clear expectations regarding readiness activity deadlines and important milestones to each department. • Document missed readiness deadlines, communicate the possible consequences of missed deadlines clearly to department leaders in a timely manner to help ensure leadership is not surprised and has ample opportunity to respond and manage the risks. • Consider implementing a strategy of over-communication for departments that may have communication challenges. • Coordinate regular readiness discussions between HawaiiPay and departments that may have readiness challenges.	12/31/18 - While the realization of this risk (mostly due to DOE/UH missteps) did impact the project and require a significant level of project team effort (including late night and weekend work) to respond to missteps, the project team mitigation steps to avert delays to the revised Group 3 schedule proved successful. It appears the primary readiness risk is related to outbound interface validation/testing which is being tracked in Risk #19. IV&V is lowering this risk to a Low. 11/28/18 - UH leadership remains concerned with previous parallel results that identified some inaccuracies. However, the project is making good progress towards quickly fixing bugs and documenting expected variation in payroll numbers. Unclear if UH leadership fully understands false positives (known variances) which are not a reflection of system problems and this seems to have created a lack of confidence in the system accuracy. 11/28/18 - UH has made the decision to implement Multi Factor Authentication (MFA) and will require their payroll users to enroll in MFA before they can access HIP. MFA implementations can be challenging, especially for non-technical users. Combining rollout of MFA with their transition to HIP could increase UH readiness risks. The project has advised against UH combining MFA with HIP go-live. 10/31/18: The project has made good efforts to implement IVV recommendations, still, UH/DOE continues to have challenges with complying with project instructions. UH/DOE do not fall under the authority of the SOH Executive branch and therefore cannot be compelled to follow project directives. The project remains concerned with UH lack of responsiveness to project communications and that UH pre-go-live employee payroll communications have yet to be broadly distributed. Unclear why UH system interface concerns have only recently been communicated to the project, leaving the project little time to assist with resolving their issues before go-live in December. While DOE/DAGS communications have improved, DOE continues to make requests of the project that seem to distract from go-live activities; DAGS has now set clear boundaries with DOE on what the project can and cannot assist with given their constrained capacity due to go-live activities. 10/17/18 - UH and DOE not able to provide a functional pass for all integration testing. The project has made multiple attempts to clarify functional pass criteria for both UH and DOE. Contingency plan to mitigate the risk of lack of departmental outbound interface testing/validation is for the project to perfor+G23m their own detailed logic review and to treat all post-go-live outbound interface problems as defects and troubleshoot as time permits. 9/26/18 - Some UH single sign on (SSO) issues remain unresolved. The project has reported that UH continues to be unresponsiveness at times to project communications. IV&V will continue to monitor. 9/26/18 - Despite project requests to review all HawaiiPay related DOE employee communications before distribution, DOE has not always done so. DOE employees have reported some of these inaccurate communications to HawaiiPay help desk. DOE has stated they have corrected these communications. More recently, the project	Cost and Schedule Management	Issue	Low	Open			Michael
23	**Lack of detailed turnover plan**	The lack of a detailed turnover plan may lead to insufficient planning and execution of important turnover activities which could lead to stakeholder confusion and cause a delay in project closure or transitioning of system support responsibilities to appropriate state staff.	Turnover plans typically describe the detailed activities involved in transitioning a new system to the new owners, usually in the form of detailed checklists that assign accountability to individuals responsible for ensuring activities get done and are validated. Turnover plans are typically utilized to ensure that important transition details are not overlooked and are effectively coordinated. Turnover plans can also be used an effective communication tool to stakeholders to ensure there is full understanding of turnover activities, roles, and responsibilities. Proper awareness of turnover plans and activities provided early on to stakeholders can go a long way toward managing stakeholder expectations and triggering important discussions, help manage expectations and support effective resource planning. Commonly reported system turnover challenges include stakeholders being caught unaware of activities, roles, and responsibilities they were expected to perform. Typically, turnover activities involve a multitude of activities carried out by multiple groups and stakeholders. Coordination of these activities can be a significant challenge; ensuring turnover effectiveness can be even more challenging. Ensuring proper understanding by state personnel of each process the SI has been performing for the past several months/years requires careful planning. Ensuring they are fully equipped to not only maintain and enhance the system but are also fully able to troubleshoot problems when critical system incidents occur (e.g. when the system goes down) can be even more challenging without a detailed plan. The SI is typically responsible for producing a transition plan deliverable, however, this deliverable was not a contractual deliverable for HawaiiPay.	• Request the SI utilize detailed checklists for turnover to ensure an effective turnover to the state and that nothing is overlooked. • The state immediately draft and take ownership of a turnover plan and request the SI review and offer guidance. • Assign turnover tasks to individuals and require task signoff by task owners once they validate tasks have been effectively completed. • Utilize readiness checkpoints and key performance indicators (KPI's) to monitor readiness effectiveness and report to project leadership. KPI's can be utilized to assure a timely and effective system turnover as well as provide project leadership an opportunity to shore up efforts when turnover efforts are not achieving expected results. • Request the SI update relevant documents to ensure an effective turnover to the state for M&O.	12/31/18 - The project continues to make progress toward operational awareness and readiness for turnover. Efforts are being made by the state to identify tasks required for payroll and individual assignment of payroll duties. Similar SI efforts are progressing for Phase 1 closure and Phase 2 planning as well as focused turnover sessions with state technical resources. 11/28/2018 - The project has created production checklists that should assist turnover to new resources, but it remains unclear who production tasks will be turned over too. The project is currently supplementing Payroll operations staff as needed due to recent staff departures. The project has an informal plan in place to continue to support payroll operation shortfalls. The project also has an informal turnover plan but has not assigned staffing to the defined roles. The Project does intend to create a more comprehensive turnover plan. 10/17/18 - Project will seek to revise the B05 (M&O support) deliverable to include technical requirements as well as create a document library with technical architecture documentation and plan for additional turnover training sessions. Architecture has been documented and knowledge transfer has begun. The project acknowledges that functional team and interface support need additional knowledge transfer from the SI. Project currently has an end of year activity checklist as well as production payroll checklist. 9/30/18 - As the number of activities required for end-of-year and group 3 go-live activities mount, turnover activities are more likely to be put off, deprioritized, or ignored. Post implementation roles remain unclear, though, the technical track lead is in the process of planning some post-implementation resource reallocation and roles and responsibilities, however, there are currently no plans for documenting them. Further, it is still unclear if current key project resources will be available for M&O activities, including the Functional Track Lead that has played a pivotal role during system implementation. 8/31/18 - The project seems to be realizing more and more that details of M&O activities still need to be worked out. Recently, the project was faced with a production defect that could have been avoided had someone been assigned to monitor the batch file logs and if measures had been in place to ensure batch processes are run in the proper order. The project will address this gap at the next RIOD meeting to clarify this role and define this operational process in more detail to ensure, for example, log files are checked and batch files are run in the appropriate order. IV&V will continue to recommend documenting these processes in detail as part of a turnover plan document created by the	Knowledge Transfer	Issue	Medium	Open			Michael

Id	Title / Summary	Finding Description	Analysis and Significance	Recommendation	Updates	Category	Type	Priority	Status	Closure Reason	Closed Date	Risk Owner
25	**Insufficient data validation, checks and balances**	Data validation processes and procedures to ensure data accuracy are insufficient and have resulted in data errors during payroll processing.	Insufficient data validation processes and procedures resulted in system errors including inaccurate paychecks and reports. Recently HawaiiPay ran (legacy) payroll for two pay periods in a row that included a significant number of incorrect deductions for UH employees. The state reported that already constrained HawaiiPay mainframe IT staff were in the midst of preparations for a major software release when the Janus supreme court ruling came down with no allowable timeframe to implement system changes, requiring an immediate update, creating additional activities to make the next payroll run. Errors may have been avoided if proper data validation processes and procedures (checks and balances) had been in place that could have caught the errors prior to the payroll run. Extensive efforts were required to manage and resolve the errors and reimburse affected employees. Many validation activities are performed manually with limited or no automated support. Overreliance on manual validation processes not only increase error rates but also increase the risk associated with over-allocating key resources (see risk #5, "Impact of project resource attrition"), risk #4, "Group 2 and 3 planning and execution activities overlap", and risk #6, "Insufficient project resources").	• Revisit existing data validation processes and procedures (automated and otherwise) to identify which should be implemented/enhanced and prioritized based on criticality and impact to payroll processing and stakeholder confidence. Once identified, an implementation plan can be created and implemented based on available resources to mitigate this risk. • Automated data validation support can not only increase data accuracy but also reduce the level of effort of manual processes for already constrained project resources. • Explore the feasibility of having the agencies and TPA's validate the final payroll run data before payroll is run.	12/31/18 - All indications point to a successful and timely Group 3 go-live where this risk was successfully mitigated. In the end, the projects decision to implement additional contingency testing, as well as the projects attention to and improvement of the automation of validations and checks and balances, significantly improved Group 3 data/payroll accuracy. SI prepared multiple queries and data compares to assist the functional team with validation/data analysis. The project has also made efforts to explore the feasibility of having agencies/TPA's validate final payroll run data and have received feedback that this may not be feasible due to privacy concerns. 11/28/18 - SI has implemented an additional 30-35 data validation support scripts that should help increase data validation efficiency as well as checks and balances. 10/31/18 - CRT provided DOE with a file match/update process showing element by element changes which should assist with better validation of their data. IV&V will lower this risks rating to a "low" as the project has made good progress toward improving validation. 9/26/18 - CRT has made good progress towards automating some data validation processes that have increased the overall quality of incoming data. For example, a process was created to better validate UH/DOE inbound HR data, that allows them to send targeted HR files that CRT processes and sends UH/DOE error details so they can troubleshoot/cleanup. This will likely improve conversion as well as parallel testing error rates as HR data has been the source of many parallel test failures. 8/31/18 - Seems like several recent defects identified this month could have been either prevented or identified early enough in the process through the use of validation techniques (user input validation, onscreen user interface instructions, or validation queries) to minimized negative effects as well as minimize level of effort to correct errors. 7/31/18 - Opened as a new issue. To mitigate future UHPA interface errors, the project has implemented a manual validation process that must be performed every pay period. This is intended to in place until all employees are migrated off the mainframe (i.e., Group 3 deployment).	Quality Management	Issue	Low	Open			Ken
26	**DHRD users' access to shared tables could result in corrupt payroll data**	Inadequate controls to manage access to update payroll data by both DHRD and Payroll Division users could result in payroll data corruption.	DHRD had access and the privileges to make a change which could have corrupted payroll data since there are no agreed upon controls for managing the shared payroll data. In this instance, the error was caught by Central Payroll before it could impact a production payroll run. Making uncontrolled changes to core payroll data can lead to inaccurate paychecks, loss of data integrity, and time wasted spent tracing the source of data corruption. The project has already reported an instance where DHRD users modified Job data tables which would have generated inaccurate or missing paychecks if the error had not been discovered before payroll processing. Further, it is unclear if efforts to train DHRD users to avoid data corruption have been effective or if DHRD had fully participated in HawaiiPay training efforts. The project is currently in the process of exploring options for controlling edits to key tables to prevent payroll data corruption.	• Explore methods to secure critical payroll data that DHRD does not need permissions to edit. • If securing the data via permissions is not a viable option, recommend engaging DHRD leadership to come up with a plan to effectively train DHRD users to avoid corrupting payroll data. Additionally, explore methods to audit impactful DHRD edits and establish appropriate checks and balances to ensure corrupt data does not impact payroll. • Provide documentation to DHRD users (or "cheat sheets") that provide clear guidance when editing sensitive tables that could impact payroll. • Immediately establish a cross divisional governance working group to define and document process and data sharing governance (including rules, guidelines, executive decision making processes, and user guides). These could be outlined in an MOA, agreed to and signed by both DAGS and DHRD.	12/31/18 - The state technical team is currently making efforts to plan for permission changes to address the DHRD access risk (as well as other permissions issues) post-implementation (post Group 3 go-live); SI is assisting with refinements to the security/permissions model. DHRD currently utilizes a significant number of customized roles that could pose a security and long-term M&O risk due to the difficulty in maintaining (and controlling access given by) multiple custom roles. The SI is working with the state to develop a permissions/security model that supports these efforts. 11/28/18 - The project conducted an additional training session for DHRD and is planning to reduce some DHRD permissions over time as they may have some permissions they do not need. 10/25/18 - There is still no clear agreement on data governance between DHRD and HawaiiPay (e.g. who can change what). Also, many users have non-standard (custom) profiles which could lead to users inadvertently getting access to data they shouldn't and lead to data corruption. Still, IV&V will reduce this risk status to "Low" as DHRD has demonstrated a better understanding of and better control over changes that could impact payroll and HawaiiPay has made efforts to monitor DHRD changes. Further, the project is close to standing up a Enterprise Configuration Management Board (ECMB) that will include DHRD as participants, and intends to leverage this group to address data governance and other controls to help further mitigate this risk. 9/26/18 - The project is currently exploring better methods to mitigate including utilizing granular	Quality Management	Risk	Low	Open			Michael

Id	Title / Summary	Finding Description	Analysis and Significance	Recommendation	Updates	Category	Type	Priority	Status	Closure Reason	Closed Date	Risk Owner
27	**Communications to external entities may be ineffectual**	While IV&V has observed good efforts by the project to provide reasonable levels of communications to external entities (departments, TPA, banks, etc.), some communication have been misinterpreted or mishandled and have not produced their intended result.	The project has experienced two different occasions of bank sending inaccurate communications to its state employee members. As part of Group 1 preparations, one credit union sent a letter to all their state employee members describing HawaiiPay changes, even though changes were only applicable to Group 1 employees. During Group 2 preparations, American Savings Bank (ASB) sent a similar errant letter to all of their state employee members when, in fact, only Group 2 employees would be impacted. The project has also noted instances where departmental leadership was unaware of their staff's activities and communications with HawaiiPay. This can create confusion and lead to poor leadership decisions that could negatively impact the project as well as distract HawaiiPay leadership as they manage misunderstandings. Failure to provide overt, persistent, and clear communications to key stakeholders can lead to confusion, frustration, and misunderstanding for external entities with inherent communication challenges and can inadvertently result in a loss of confidence in the project.	• Enact overt and persistent efforts to address communications that have proven to be ineffective and with organizations that have known communication challenges. • Over communicate important messages as well as messages that are likely to be missed. For example, multiple emails can be sent to reiterate important messages or restate them in increasingly simple or overt terms. • Reassess existing communications and provide further clarification to TPA's to ensure clear understanding and provide guidance on future communications. • Provide template letters to TPA's that provide clear communications that TPA's can modify to meet their needs. • Obtain agreements with each department on the process for HawaiiPay to review all HawaiiPay related communications sent to employees. • Insist departments and banks forward all of their HawaiiPay related state employee communications to HawaiiPay for review prior to sending.	12/31/18 - All indications point to a successful and timely Group 3 go-live where this risk was sufficiently mitigated by the project. In the end, project efforts to mitigate this risk seem successful as enrollment participation met expectations and did not pose a significant risk to the perception of project success. Help desk capacity was sufficient to manage the increased number of questions due to any external entity communication missteps. IV&V has downgraded this risk to a Low. 12/21/18 - Though the project seems to have made every reasonable attempt to bring understanding of new payroll processes to Group 3 stakeholders, some seem to (at times) struggle to fully understand them, despite repeated explanations. 11/28/18 - As go-live draws near, UH/DOE seem to have stepped up employee HawaiiPay communications. UH has instituted enrollment drives and their project-led train-the-trainer events have been well attended. UH has created a web site for employees with HawaiiPay instructions which has been reviewed and validated by the project for accuracy. Shane team (Leanne/Mark) to work on this 10/31/18 - Unclear if UH will be conducting enrollment drives as they have not been transparent with their OCM/employee go-live communications plans. As the December go-live draws near, the project may be unable to plan for the required level of support to assist UH in preparing for enrollment drives due to lack of UH feedback. UH failure to provide their employees with timely and accurate enrollment and go-live instructions could lead to confusion and increase enrollment errors at go-live, which could reflect negatively on the project. IV&V will continue to monitor. 10/24/18 - The project has reached agreement with DOE for providing train the trainer support to DOE to assist with enrollment drives and accurate communications to DOE employees. Still, the project remains concerned that DOE has either misconstrued or ignored project guidance on DOE employee pre-go-live communications. 10/18/18 - The project plans to assist central payroll with periodic training and Q&A webinars to assist departmental payroll users and ensure thorough understanding of new processes and system functionality. This should go a long way towards good OCM (reducing confusion and user errors that could impact payroll) and should increase user adoption and positive perceptions of HawaiiPay. 10/3/18 - DOE has requested the project review of DOE communications material they are preparing to	Communications Management	Risk	Low	Open			Michael
30	**Strategy for data management not finalized**	Without a finalized data management strategy, data policies and inter-agency agreements may not adequately address the needs of all entities with responsibilities for governing data which may result in ineffective data management and remediation processes.	The project has received feedback from other agencies, notably DHRD, regarding data permissions and processes that need to be implemented or enforced which may or may not be in line with the project's vision or approach. The implementation of the enterprise payroll solution, HIP, warrants enterprise-wide policies and governance of the system, it's data, and it's outputs.	- Work with appropriate DAGS governance processes to develop an over-arching strategy for data management across the departments - Work with impacted departments to codevelop and implement data management policies in support of the HawaiiPay solution.	12/31/18 - DAGS leadership decision to implement an ECMB is currently on hold until DAGS leadership appointment is confirmed (both Comptroller and CIO). The ECMB proposal that was submitted by the project includes a draft administrative directive for a Data Governance Committee. 11/28/18 - Despite project leadership efforts to institute the ECMB, department leadership has indicated they may not be ready to participate at this time. 10/24/18 - ECMB plans have progressed. This committee is the first step towards change management governance as well as improving data governance. 9/26/18 - The project has initiated plans to create an Enterprise Change Management Board (ECMB) which is intended to shore up governance on many levels including data management. ECMB is awaiting comptroller approval. 8/31/18 - The project initiated a monthly meeting with Payroll and HR SMEs across departments to share information regarding system updates, identify lessons learned, establish best practices, and provide status on project's progress. This forum is likely to help identify data management requirements for inclusion in the project's strategy development efforts with DAGS governance.	Project Organization & Management	Risk	Low	Open			Michael

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31	**Lack of adequate formal controls related to end user provisioning and segregation of duties**	The project currently lacks sufficient project security policies to guide, among other things, departmental user permissions. While the HIP User Access Request form references a pdf that describes roles and based on user duties, the project seems to lack the authority to deny departmental requests for excess permission requests and permissions that are not in keeping with segregation of duties. Typically, state and/or departmental security policies will offer guidance for project security policy development that guide system permissions, roles, rules and governance. For example, if state/departmental/system policy supports the principle of least privilege (PoLP) and segregation of duties, the project would have the basis for denying requests for excess permission requests. Controls currently exist to ensure departments only have access to their employee's data and the	Without thorough state/departmental security policies and procedures, the project could lack sufficient guidance in creating project security policies/procedures. Without documented state/departmental/project PoLP policies, the project may not have sufficient authority to deny excessive departmental access requests. Departments users could be given higher levels of access than they need, which could lead to unnecessary exposure of PII data as well as identity theft, fraud, unfavorable audit reviews, and inadvertent corruption of data.	- Create/implement a HIP administrative user agreement for department administrative users who are responsible for determining permissions for departmental users. The agreement should assure that administrative users clearly understand their additional responsibilities, security best practices, guidelines, PoLP, and risks involved with giving users excessive permissions. - Formally notify department leadership of requests that appear to be excessive and assure clear understanding of the risks involved; request departments rollback permissions that seem excessive - Recommend implementation of controls designed to prevent end users from completing systems transactions that are not in the best interest of the State. These control objectives should include: • Controls that, where possible, prevent unauthorized access to system functionality that would violate standards and or policy related to adequate segregation of duties. This would include a matrix that outlines HawaiiPay user roles that conflict with the control objective. • A mechanism or process to identify user provisioning requests that include conflicting roles. • Definition of permissible variances to this control objective, which outline not only the criteria required to allow a variance, but also a process or workflow to ensure the variance is known and approved by agency leadership. • A secondary detective control that could identify, behaviors not in line with the expected activity for which the variance was originally granted i.e. reports listing transactions that seem unusual, unnecessary or inappropriate.	12/31/18 - It appears DOE intends to revoke excessive permissions but it remains unclear how extensive these reduced permissions will be. IV&V continues to recommend an annual audit process and quarterly reviews to drive departments to compliance with best practices to reduce security risks. ETS annually engages an external firm to perform a security audit, which could be leveraged to motivate departments to shore up excessive permissions. 11/28/18 - The Project intends to request DOE roll back any excessive permissions once Group 3 go-live is complete. The project making plans to develop fraud detection queries. 10/31/18 - The project received state CISO confirmation that the state does not have a PoLP policy. State CIO and CISO has drafted a memo to DOE to acknowledge understanding of segregation of duties and PoLP. However, the memo does not seem to make it clear that several DOE permission requests seem excessive and seem to violate these principles. The project has made some progress in raising user awareness of security and privacy concerns by adding segregation of duties policy guidance to their security access request form and will consider adding similar language to the systems login/splash page. The project has also drafted an NDA that will require signature from all payroll users. DAGS responsibilities regarding protection of assets or prevention of fraud remain unclear. 9/30/18 - DOE user permission requests seem excessive and not in keeping with segregation of duties and the principle of least privilege. The projects lack of formal security controls has left the project powerless to deny requests that could expose private data (PII) and increase the risk of fraud and identity theft. Some DOE users may be given unnecessarily access to DOE employee SSN's and banking information.	Risk Management	Risk	High	Open			Michael
32	**End of year processing complexity**	Payroll related end of year processing typically involves a significant number of activities to close out the year. Now that group 3 rollout has been moved to December, the project will be faced with performing unforeseen end of year processes that include combining legacy and HIP data to produce W2 and other reports. Project resources will be further constrained by the additional burden of a major Group 3 release that has already proven to be time consuming and problematic. Project will implement a combined CRT/state project plan going forward.	Combining data from legacy and HIP for end of year processing/reporting increases the complexity of year-end processing. This untested process and other end-of-year activities occurring in parallel with Group 3 rollout activities during the holiday season could lead to project resources becoming quickly overwhelmed, degrade the overall quality of these activities, and increase the risk of mistakes/errors. Often, when new processes are introduced, staff will struggle to understand the entire scope of the change, become confused over the timing of activities or who is responsible, and may overlook important training requirements. IV&V has already identified risks that could be exacerbated by this situation, including insufficient project resources, overreliance on key resources, and excessive number of manual go-live processes.	- Introduce extensive resource allocation management into project planning activities - Explore addition of contracted resources or reallocation of other DAGS divisional resources to support the project team - Carefully track DAGS resource vacation plans and assess/manage impacts to project activities - Pilot run of year-end activities - Early extensive planning utilizing a consolidated schedule that includes CRT and state activities - Automate relevant year-end activities that currently require manual processing	12/31/18 - The SI has created a separate environment for year-end processing and have run unit tests to validate configuration. The project currently has a cleanup exercise planned to validate year-end balances and have already identified 200 employees with possible discrepancies. OCM efforts are underway which include employee and payroll user communications, a revised W2 mock up (published to their web site), new W2 instructions that will be printed on the backside of the W2, and other communications regarding the new W2 format. Comptroller is planning on sending memorandums to all departments to address changes to the W2 as well as the new W2 processes. 11/28/18 - SI has made plans to address possible performance concerns due to the increased activity from the start of enrollment (ESS). The project sent communications to request current payroll users execute high volume transactions on days other than go-live period. The project has got an early start on year end activities (e.g. year-end tax balances clean up). The SI has begun detailed planning year-end activities. 10/31/18 - While the project has accepted (and IV&V has subsequently closed) risk #28 (Lack of Sufficient Resources), IV&V will continue to monitor and address this risk as it pertains to this year-end processing risk (#32). IV&V continues to monitor for project progress with regard to detailed plans for year-end processing as well as additional automation of tasks that currently require manual processing. 10/24/18 - Despite their constrained capacity, project mainframe programmers may need to take vacation before end of year (because of use it or lose it vacation policy) which could impact project. The project relies on these 2 programmers for critical year-end project tasks. The project is exploring options that could allow them to take their vacation without losing it post-go-live. 10/24/18 - DAGS has prepared and will send a memo to departments this week that details and sets expectations for end-of-year processing activities, in an effort to help mitigate this risk. 10/1/18 - Two options are being evaluated by the SI to address combining legacy and HIP data to issue W2s and produce year-end-reporting: 1) Close in legacy and import data in HIP or 2) Close both systems. SI is preparing a proof of concept to test options viability. SI will lead process discussions with users to understand their checklist of what needs to be done and will perform multiple test cycles for the chosen model. The project will update production and cutover plans with required year-end activities and associated reporting.	Project Organization & Management	Risk	Medium	Open			Michael

Id	Title / Summary	Finding Description	Analysis and Significance	Recommendation	Updates	Category	Type	Priority	Status	Closure Reason	Closed Date	Risk Owner
33	UH intends to produce their own customized pay statements which could contradict HIP pay statements and confuse users as well as introduce a legal risk to the state.	Despite project and State Attorney General advisement, UH has decided to continue offering their employees an alternative pay statement that calculates earnings based on fiscal year instead of calendar year. HIP pay statements calculate total earnings based on calendar year. The project has requested review of data UH will use to produce their custom pay statements. This will be the first time state employees will be offered 2 pay statements.	Multiple UH pay statements could create confusion among UH employees which could increase project help desk call volume. Legal exposure to the state could increase as employees could use the UH generated pay statements to inflate their earnings.	• Explore providing targeted communications (only visible to UH users) on the ESS site and/or HIP pay statements. • Project team continue to pursuit open dialog with UH to not only discuss alternatives to customized pay statements but also UH directed employee OCM communications to assure understanding of the reason for differences.		Organizational Change Management	Preliminary Concern	Low	Open			Michael

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