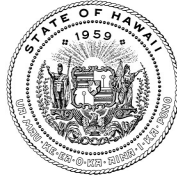JOSH GREEN, M.D.
GOVERNOR
KE KIAʻĀINA

KEITH A. REGAN
COMPTROLLER
KA LUNA HOʻOMALU HANA LAULĀ

CHRISTINE M. SAKUDA
CHIEF INFORMATION OFFICER
LUNA ʻENEHANA

STATE OF HAWAIʻI | *KA MOKUʻĀINA O HAWAIʻI*
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | *KA ʻOIHANA LOIHELU A LAWELAWE LAULĀ*

OFFICE OF ENTERPRISE TECHNOLOGY SERVICES | *KEʻENA HOʻOLANA ʻENEHANA*

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

January 31, 2025

The Honorable Ronald D. Kouchi
President of the Senate
and Members of the Senate
Thirty-Third State Legislature
State Capitol, Room 409
Honolulu, Hawaiʻi 96813

The Honorable Nadine K. Nakamura
Speaker and Members of the
House of Representatives
Thirty-Third State Legislature
State Capitol, Room 431
Honolulu, Hawaiʻi 96813

Aloha Senate President Kouchi, Speaker Nakamura, and Members of the Legislature:

Pursuant to HRS section 27-43.6, which requires the Chief Information Officer to submit applicable independent verification and validation (IV&V) reports to the Legislature within 10 days of receiving the report, please find attached the report the Office of Enterprise Technology Services received for the State of Hawaiʻi, Department of Labor and Industrial Relations (DLIR) Hawaiʻi Unemployment Insurance Modernization (Hui Huakaʻi) Project

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

Sincerely,

Christine M. Sakuda
Chief Information Officer
State of Hawaiʻi

Attachments (2)

HUI Huaka'i Project

Department of Labor and Industrial Relations (DLIR)

IV&V Monthly Status Report – **[Final]**

For Reporting Period: **[October]**

Draft Submitted: November 5, 2024

Final Submitted

PUBLIC CONSULTING GROUP

Solutions that Matter

Overview

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

Executive Summary

The HUI Huaka'i Project is in a low-risk <mark>Green</mark> *status but has some project areas, Project Management, Cost and Schedule Management, Resource Management and Scope Analysis, in Yellow. This is due to the lack of a detailed schedule, a finalized project management plan and related documents, an approved resource management plan, and scheduled document deliverables being late. Currently, the project is in requirement-gathering sessions for tax, benefits, and appeals.*
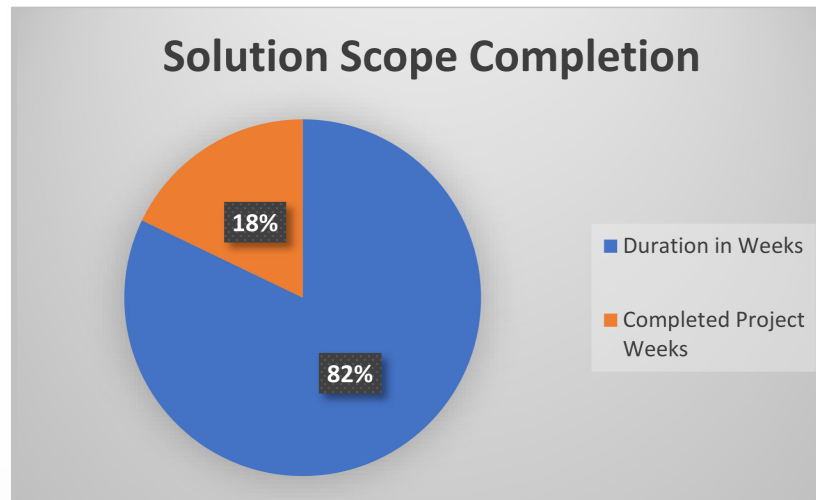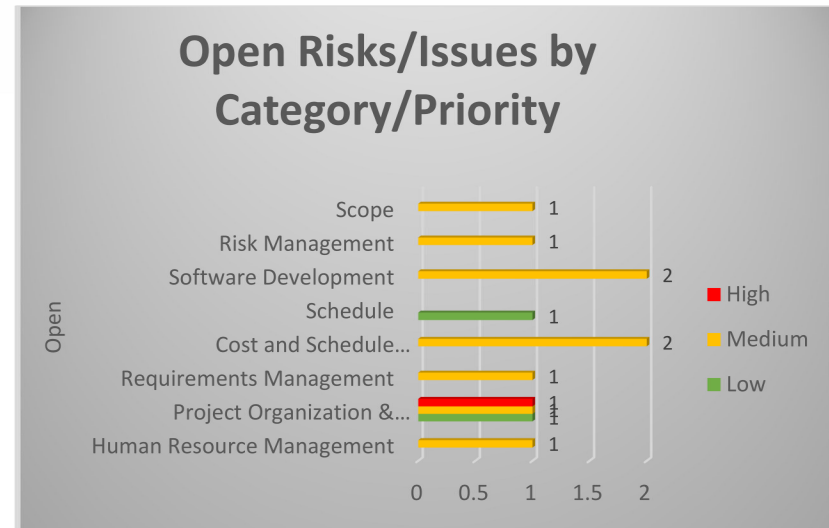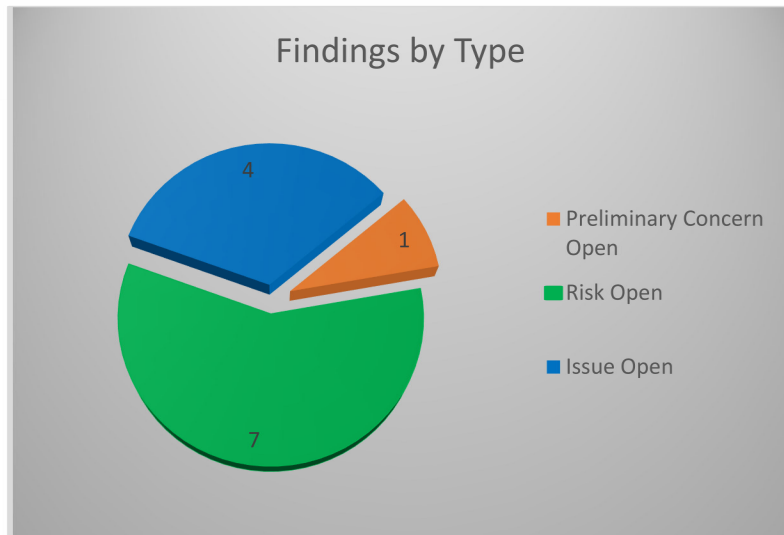
The IV&V team reported one (1) preliminary concern, (4) issues, and seven (7) risks detailed in the IV&V Findings and Recommendations section of this report.

The IV&V team submitted the monthly report in October, completed the review of (5) project documents: Project Schedule, Project Management Plan, Resource Management Plan, Testing Master Plan, and the Decision Log, and provided feedback.

The IV&V team will continue to attend requirement sessions, review project documentation and ADO boards, and make recommendations.
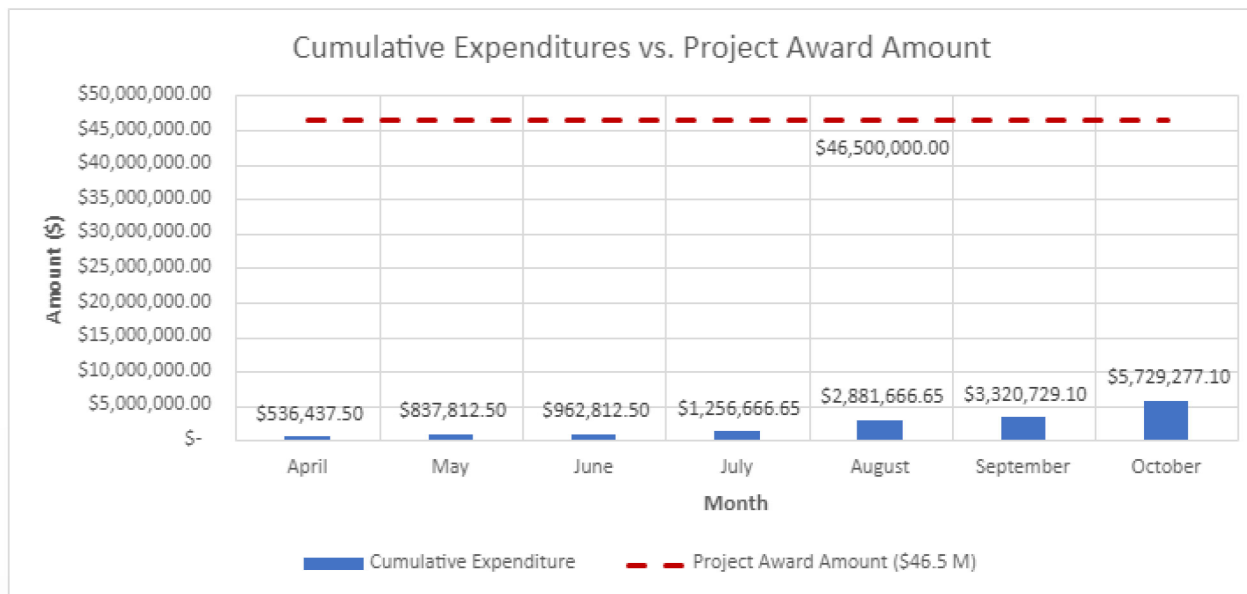
Executive Summary

IV&V identified (12) twelve findings (one (1) preliminary concern, four (4) issues, and seven (7) risks) for this reporting period. Findings, Risks and Issues, and Scope Completion are represented below.

Findings by Type

- Preliminary Concern Open: 1
- Risk Open: 7
- Issue Open: 4

Open Risks/Issues by Category/Priority

Category	Count	Priority
Scope	1	Medium
Risk Management	1	Medium
Software Development	2	Medium
Schedule	1	Low
Cost and Schedule...	2	Medium
Requirements Management	1	Medium
Project Organization &...	1	High
	1	Low
Human Resource Management	1	Medium

Legend: High (red), Medium (yellow), Low (green)

Solution Scope Completion

- Duration in Weeks: 82%
- Completed Project Weeks: 18%

Executive Summary

HUI Huaka'i Project expenditures to the contract vendor are represented below.

Month	Expenditure	Cumulative Expenditure
April	$ 536,437.50	$ 536,437.50
May	$ 301,375.00	$ 837,812.50
June	$ 125,000.00	$ 962,812.50
July	$ 293,854.15	$ 1,256,666.65
August	$ 1,625,000.00	$ 2,881,666.65
September	$ 439,062.45	$ 3,320,729.10
October	$ 2,408,548.00	$ 5,729,277.10

Executive Summary

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	M	Project Organization Management	Project Organization Management is Yellow with the following **Observations:** Foundational documents such as the Project Management Plan (PMP) and the Project Schedule have not been finalized. While the project schedule has been baselined, it doesn't have the details that are needed to report Schedule Performance (SPI), Scope Management, or Earned Value Management (EVM). IV&V reviewed the Project Management Plan (PMP) and provided feedback on 10/31/2024 with the following observations • The PMP did not include a Project Team Training plan, Security Plan, or Vendor Management Plan due 10/22/2024, 10/28/2028, or 10/30/2024, respectively. • The Decision Log has not been used to record project decisions. • No Product Owner is identified. IV&V has observed improvements in the misalignment of elicitation session agendas. These agendas are now centrally stored in a repository, a positive step towards improving organization and accessibility. However, challenges persist with aligning the agendas with actual meeting content. **IV&V Recommends:** • Including more information on staffing requirements in all project phases. • Completing the Project Team Training Plan, Security Plan, and Vendor Management Plan. • Incorporating the use of the Decision Log. • Identifying the Product Owner **Related Open Findings:** **Finding #10** – Misalignment of Elicitation Session Agendas **Finding #23** - Lack of post-meeting notes/action items **Finding # 27** – Late document deliverables

Executive Summary

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	M	Cost and Schedule Management	Cost and Schedule Management is Yellow with the following **Observations**: The final project schedule was delivered on September 6, 2024, and the Hawaii UI PMO reported in the Project HUI Huaka'i Weekly Project Status Meeting on October 2, 2024, that the schedule is approved. IV&V reviewed the project schedule and determined that the schedule lacks sufficient details to provide accurate project health reporting. The Hawaii UI PMO has facilitated multiple meetings with the UI Solution Vendor to work on revising the schedule to provide more details to be able to provide the required reporting. The Project Team Training Plan, Security Plan, UIS Implementation Plan, and Vendor Management Plan, due 10/22/2024, 10/28/2028, 10/28/2024, and 10/30/2024, respectively, have not been delivered according to the schedule. The UI Solution Vendor stated that they will submit a change request to change the deliverable dates for the late documents. **IV&V Recommends:** • Thoroughly reviewing and validating the project schedule with the project team and stakeholders. considering resource availability, constraints, and potential risks. • Obtaining stakeholder approval and setting the schedule as the baseline, i.e., the official project plan, once the schedule is approved. • The Project Schedule is missing the number of personnel and their appropriate skill level. • All tasks that are on the critical path should be highlighted in a different color • Assigning resources to the detailed tasks. **Related Findings:** **Finding #21 -** Enhancing Project Clarity: Identifying Critical Tasks in the Project Schedule **Finding #22 –** Incomplete Project Schedule **Finding #27 –** Late document deliverables

Executive Summary

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	L	Requirements Management	Requirements Management is Green with the following **Observations**: • There are anomalies with the traceability and linking of the Requirements Traceability Matrix to Feature items in Azure DevOps • Inconsistent use of status tracking fields across requirements gathering teams in the ADO. **IV&V Recommends:** • Including application demonstrations to provide context to requirements sessions would provide valuable context for staff and may benefit OCM • Establishing a standardized process for tracking user story statuses in ADO across all teams, ensuring that both the "Requirement State" and "State" fields are used consistently. **Related Findings:** **Finding #4** – Traceability Concerns in Requirements Traceability Matrix and Azure DevOps Feature Items **Finding #11** – Pace of Requirement Completion – **Closed 9/26** **Finding #18 –** Inconsistent Use of Status Fields in ADO Boards for Benefits and Tax Teams

Executive Summary

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	L	System Architecture and Design	System Architecture and Design is Green with the following **Observations:** An Initial System Design Document was due on 10/23/2024 and has not been delivered. IV&V expects this document to be prioritized in the next reporting period. The UI solutions vendor reported in a meeting on 10/28 that they intended to submit a change request to extend the deadline for this deliverable. *In July, IV&V reviewed and provided recommendations on the Implementation Strategy document, versions 1 and 2. Overall, the Implementation Strategy document creates a good framework for their approach and future documentation. High-level strategy and objectives were provided, and the expectation was that more detailed plans and information would be contained in the Go Live Playbook. Until the Go Live Playbook is finalized, IV&V cannot validate many of its observations and findings. Several recommendations were made for inclusion in the Playbook.* *IV&V Recommends:* • *Include physical posture for user readiness in the Go Live Playbook or future documentation.* • *The Go Live Playbook or Implementation plan should include information regarding operational readiness.* • *Inclusion of an implementation strategy checklist.*

Executive Summary

2 Months Prior	Prior Month	Current Month]	Category	IV&V Observations
L	L	L	Testing (Sprint, Unit, System, Integration, UAT)	Testing (Sprint, Unit, System, Integration, UAT) is Green with the following **Observations:** In October, testing activities are progressing, with SME validation kicked off on 10/30. This kickoff presented the tools that SMEs will use, with their first opportunity to do exploratory testing in the Sandbox environment. The Master Test Plan draft was delivered and is currently being refined based on initial feedback from IV&V.
L	L	L	Operational Preparedness	**There are no updates for this period.**

Executive Summary

[2 Months Prior]	[Prior Month]	[Current Month]	Category	IV&V Observations
L	L	L	Data Conversion / Management	Data Conversion / Management is Green with the following **Observations:** The weekly Data Conversion and Data Cleansing meetings are progressing well. Data Conversion activities continue to be focused on completing the Data Dictionaries (DDs). The review of the Mainframe and Sides Data Dictionaries (DDs) is complete, and the review of the Web Admin DD is in progress. The Data Cleansing vendor is defining optimal business rules to ensure high-quality data for HI DLIR's modernization initiatives. Using SAP Information Steward, a powerful tool for data profiling, monitoring, and policy management, they execute data rules and provide a data quality scorecard each month. The project manages Data Dictionary tasks through a Conversion Traceability matrix maintained in Excel. Data Cleansing tasks are managed through sprint boards in Azure DevOps (ADO). IV&V currently lacks access to the Data Cleansing Sprint Boards and anticipates that the Data Cleansing vendor will grant them access. However, the UI Solution vendor is not going to provide IV&V access to the Data Conversion Boards in favor of using the Conversion Traceability matrix. IV&V has lowered the priority from "High" to "Low". IV&V reviewed the Final version of the Data Conversion Strategy document and had similar comments to versions 1 and 2. Overall, IV&V found the strategy document to be sufficient and expects some areas, such as error tracking and staffing, to be elaborated upon in future documentation such as the Data Conversion Plan. **IV&V recommends:** • A rollback plan and process are included in future documentation. • Including a project schedule detailing data conversion processes in future documentation. • Creating a risk to the project for the lack of legacy data documentation, such as a data dictionary. • Including legacy data source information in future documentation. • Including a more in-depth training approach for conversion procedures and activities in future documentation. • Defining a Business Glossary early in an IT project, such as during data conversion, to establish a foundation for clear communication, consistent documentation, and accurate requirements. It minimizes misunderstandings, reduces risks, and promotes efficiency, setting the project up for success from the start. While defining a Business Glossary is not always the primary focus of the conversion process itself, integrating one into the data conversion phase can enhance overall data management. It is a strategic and beneficial practice. **Related Findings:** • **Finding #19** Defining a Business Glossary during the early phases of the project

Executive Summary (cont'd)

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	L	Security	Security is Green with the following **Observations:** The Security Plan was not delivered on the scheduled date of 10/28/2024. The UI Solution Vendor stated that they would submit a change request to adjust the schedule date.
L	L	L	Training / Knowledge Transfer	Training / Knowledge Transfer is Green with the following **Observations:** The Team Training Plan was not delivered on the scheduled date of 10/28/2024. The UI Solution Vendor stated that they will be submitting a change request to adjust the scheduled date.
L	L	L	Interfaces	**There are no updates for this period.**
L	L	L	Quality Management	**There are no updates for this period.**

Executive Summary

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	L	Software Development	Software Development is Green with the following **Observations:** • The UI project has not set a source code quality threshold. The absence of a source code quality threshold in tools like SonarQube can lead to several significant issues, potentially impacting both short-term productivity and long-term system stability. • There are no Sprint Retrospectives at the end of each development sprint. • The current agile ceremonies are very brief, which can lead to several drawbacks. While brevity can be advantageous, it's crucial that ceremonies like Sprint Planning facilitate meaningful dialogue and effective collaboration. If discussions are overly short, transparency around team progress and challenges may decrease, negatively affecting collaboration. • During some requirement sessions, it has been observed that the vendor does not share notes and post-meeting action items. This could lead to missed action items, missed communication, and a lack of tracking of accomplished work from previous meetings. IV&V Recommends: • Based on Scrum Alliance guidelines, additional questions should be asked to ensure the proper execution of a Scrum meeting and Sprint Planning meetings. • As a guideline, IV&V recommends the durations for key Scrum events for 2-week Sprints based on PMBOK Best Practices (refer to Finding #20). • Using a source code quality threshold. • Implementing Sprint Retrospectives to enhance team collaboration, continuously improve development processes, and ultimately increase the project's success. **Related Findings:** **Finding #19** – Defining a Business Glossary during the Data Conversion Phase **Finding #20**– Insufficient sprint planning and coordination could lead to inefficient development processes, poor system designs, and project delays. **Finding #24** - Source code quality threshold **Finding #26 -** Sprint Retrospectives

Executive Summary

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	M	M	Human Resources Staffing Management	Human Resources Staffing Management is Yellow with the following **Observations:** The UI Solution Vendor does not have an approved Resource Management Plan, making it difficult to assess whether the assigned project resources are adequate to complete the scheduled work. Lack of resources can create delays in project work and deliverables, and currently, four (4) project deliverables are behind schedule. The UI Solution Vendor has stated that they will be creating a change request to adjust the deliverable dates. During the October reporting period, IV&V reviewed the updated Resource Management Plan and had the following observations: • Incorporate potential risks and scheduling conflicts into the planning process to ensure accurate scheduling and avoid resource allocation issues. • The current plan outlines the roles and responsibilities of some resources/subcontractors, but not all. To improve clarity, it is suggested to consolidate this information in one section. **IV&V Recommends:** • Finalizing the Resource Management Plan. • Review the resource allocation timeline to ensure it aligns with project milestones and confirm that any required training for resources is identified and scheduled. • Adding additional resources if appropriate. **Related Findings**: **Finding #3** – Monitor and Track Project Resourcing
L	L	M	Scope Analysis	Scope Analysis is Yellow based on the following **Observations:** IV&V is unable to analyze or report on report on scope as it requires: • Calculating the estimated percentage of RTM scope implemented, • Estimating the percentage of testing completion for the current scope, and • Listing dates and explanations for any scope changes. IV&V and the project currently lacks these details, including a finalized RTM and detailed testing dates, hindering the ability to provide a meaningful analysis. The Hawaii UI PMO reported that they are working with the UI Solution Vendor to be able to provide metrics for project scope and health analysis and metrics will be available for November reporting. **Related Findings:** **Finding #28** – Incomplete Scope Limiting IV&V Reporting Capabilities

Executive Summary (cont'd)

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	L	Contract Management	Contract Management is Green with the following **Observations:** The HUI Huaka'i Project gave UI Solution Vendor a Vendor Improvement Action Plan early in the project to establish a common understanding of the State's expectations. Additionally, they established a weekly review process to ensure the vendor remediated issues. Delivering a Vendor Improvement Action Plan early in the project clearly establishes the vendor's expectations so that small problems don't become larger issues as the project progresses. The Hawaii UI PMO held two meetings in October to monitor progress on the UI Solution Vendor PIP. **IV&V Related Findings**: **Finding #16:** Project Vendor on a PIP
L	L	L	Communication Management	Communication Management is Green with the following **Observations:** In September, IV&V reviewed the Communications Plan. The documents were measured against standards, including CMMI-DEV, PMBOK, and ISO/IEC. The Communications Plan is a comprehensive guide for communicating information, detailing what to share, when, with whom, and how. The plan identifies stakeholders and describes the creation of a quadrant graph as a stakeholder register, capturing details such as engagement, influence, and impact levels. Additionally, the plan outlines methods for reporting project status, issues, risks, and mitigation strategies. **IV&V Recommends:** • The Project develops a Stakeholder Management Plan to identify and prioritize stakeholders, ensuring their needs and expectations are effectively addressed to enhance communication and increase project success. • While the Communications Plan outlines performance measurement, IV&V suggests implementing tools such as variance analysis and forecasting methods to further assess project performance.

Executive Summary

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	L	Organizational Change Management	Please see the Organization Change Management Slide.
L	L	L	Risk & Issue Management	Risk and Issue Management is Green with the following **Observations**: The UI project team has bi-weekly Risk Management Meetings on Fridays. The Risk Management Plan was measured against standards such as the PMBOK. IV&V has reviewed the Final Risk Management Plan, which now incorporates several of IV&V's earlier recommendations. IV&V has provided additional feedback through a document review checklist. The Risk Management Plan does not include creating and maintaining a RAID log for the project, which is a key tool in effective risk management and overall project management. **IV&V Recommends:** • Defining all relevant inputs and outputs in the risk management process in an appendix. • Considering risks at two levels (i.e., individual and overall) within the project. • Detail the five steps of the vendor's risk management framework and include all relevant inputs and outputs for each step. • Incorporating stakeholder risk appetite and thresholds into the plan. • Outlining the communication plan for risk management. • Create and maintain a RAID Log

Executive Summary

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	L	Risk Management	• A section that lists the tools and software used for risk management is included. • Including a section that outlines the training requirements for the project team on risk management practices and initiatives. • The UI project start using a RAID log immediately and follow Best Practices for its maintenance.

Executive Summary

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	L	Technical Architecture	**There are no updates for this period.**

Organizational Change Management

The current OCM meetings are running smoothly without any issues. The Bento sessions continued with sessions for Employee Registration on 10/2 and Basic Claimant and Claim Functionality on 10/23. Stakeholder Analysis Report Target document completed and reviewed by UI PMO.

OCM Activities	Date
• Employer Registration	10/2/24
• Basic Claimant and Claim Functionality	10/23/24

IV&V Findings and Recommendations
Ⓜ Project Organization Management

The following slides list the findings in each category (focus area) that IV&V tracks throughout the project. Criticality ratings are provided by category and finding. Findings are itemized and described, including the impact on the project and recommendations for mitigating risk. A separate findings log spreadsheet can be referenced as supporting documentation to provide greater detail on each IV&V finding.
Findings will include Issue Analysis (Open/Closed Issues), Risks/Concerns/Observations/Deficiencies, and Recommendations for Remediation.

#	Key Findings	Criticality Rating
10	Risk – **Misalignment of Elicitation Session Agendas:** *IV&V observed that the agendas provided for the elicitation/requirements sessions are not consistently provided and not consistently accurate. This often leads to misalignment with the actual discussions during the meetings. Participants are instructed to prepare by reading and familiarizing themselves with the user stories and features to be discussed. However, the sessions often diverge from the prescribed agenda.* *Additionally, the meeting minutes, while accurately reflecting the discussions that took place, need to match the agenda distributed beforehand. This inconsistency hinders participants' engagement, leading to inefficiencies and a lack of productive engagement.* *Analysis and significance:* *As a result of inconsistent and inaccurate agendas, participants are unable to adequately prepare for sessions, leading to ineffective discussions and a lack of productive engagement. The discrepancies between the meeting minutes and the agenda further exacerbate these inefficiencies, potentially hindering the progress of elicitation activities.*	Medium

Recommendations	Status
*Recommendations found on the following slide**	

IV&V Findings and Recommendations
Ⓜ Project Organization Management

Recommendations	Status
IV&V Recommends: 1. Ensuring that meeting agendas are closely followed during Elicitation sessions to provide structure and allow participants to prepare and engage effectively. 2. Communicate any changes to the agenda in advance to give participants ample time to adjust their preparations. 3. Implement feedback to gather participant input on meeting effectiveness	Open

Update(s)

9/26/2024
During this reporting period, IV&V observed similar issues with the misalignment of agendas and meeting minutes. Over a four-week period, IV&V observed that of the 14 user stories listed in the agenda, 0 were discussed during the sessions. The meeting minutes reported 15 different user stories that were discussed. Additionally, one week of agendas and meeting minutes uploaded to the repository and emailed out were for the incorrect week.

No actions to resolve have been taken this reporting period.

10/23/2024
During this reporting period IV&V observed additional issues and no measurable improvement in this area. These are the observations made over a three-week period:
During a review of recent elicitation sessions, the following issues were identified:
- One week had no agenda sent out for scheduled meetings.
- One day occurred where no meeting minutes were provided following the session.
- The two remaining agendas provided were identical, with only the dates changed, listing the same seven user stories for discussion across three weeks.
Despite these agendas, only one of the seven user stories listed was actually discussed, with 17 unique user stories discussed across the three-week period.
IV&V is escalating this concern to a risk.

IV&V Findings and Recommendations
(M) Project Organization Management

#	Key Findings	Criticality Rating
19	Risk – **Defining a Business Glossary during the data conversion phase**: *Not defining a Business Glossary during the data conversion phase can lead to several disadvantages.* A Business Glossary is a comprehensive repository that defines key business terms, concepts, and relationships within an organization and has clear definitions for data. It provides clear and consistent definitions to ensure that everyone in the organization understands and uses the same terminology in the same way. Developing and documenting standard data definitions reduces ambiguity and improves communication. The project commenced data conversion and data cleansing activities in June 2024, and these activities are ongoing. Work is yet to commence on defining a Business Glossary. While defining a Business Glossary is not always the primary focus of the conversion process itself, integrating one into the data conversion phase can enhance overall data management. It is a strategic and beneficial practice. A Data Dictionary and a Business Glossary are integral to effective data management, supporting communication, consistency, and governance from different but complementary perspectives. A Business Glossary defines business terms to ensure common understanding across the organization. It's business-centric, with a focus on meaning and usage. A Data Dictionary defines data elements in a technical context, detailing data types, structure, and constraints. It's data-centric, with a focus on the specifics of data storage and management. Business glossaries have the following objectives: 1. Foster a shared understanding of key business concepts and terminology. 2. Minimize the risk of data misuse caused by inconsistent interpretations of these concepts (continued on the next slide)	Medium

IV&V Findings and Recommendations
Ⓜ Project Organization Management

#	Key Findings	Criticality Rating
	3. Improve alignment between technical assets and the business organization by bridging naming conventions Not defining a Business Glossary during the data conversion and data cleansing phase can lead to several disadvantages: 1. Miscommunication: Without a shared understanding of terminology, team members may interpret data differently, leading to confusion and errors. 2. Inconsistent Data: Variations in terms can result in inconsistencies in data mapping and conversion, compromising data quality. 3. Increased Errors: Ambiguities in definitions may lead to mistakes in data extraction, transformation, and loading processes. 4. Inefficiency: Team members may spend extra time clarifying terms and resolving misunderstandings instead of focusing on critical tasks. 5. Stakeholder Disagreement: Different stakeholders may have varying interpretations of terms, leading to conflicts and delays in decision-making. 6. Poor User Adoption: If end users encounter unclear or inconsistent terminology in the converted data, it may hinder their ability to effectively use the new system. 7. Difficulty in Compliance: Regulatory or compliance requirements may be harder to meet without clear definitions, increasing the risk of non-compliance. (continued on the next slide) 8. Limited Data Governance: A lack of a business glossary can weaken data governance efforts, making it challenging to maintain data integrity and accountability. (continued on the next slide).	Medium

IV&V Findings and Recommendations
(M) Project Organization Management

#	Key Findings	Criticality Rating
	9. Longer Training Time: New users may require more extensive training to understand the data, as they lack a reference point for definitions. 10. Compromised Reporting and Analytics: Inconsistent terminology can lead to inaccurate reporting and analysis, impacting strategic decision-making. (*Recommendations found on the following slide**) Based on Best Practices (in the *DAMA - DMBOK 2nd edition*), establishing a Business Glossary is necessary. It helps ensure clarity, consistency, and effective communication throughout the data conversion and data management processes.	Medium

Recommendations	Status
IV&V recommends defining a Business Glossary early in an IT project as it provides a foundation for clear communication, consistent documentation, and accurate requirements. It minimizes misunderstandings, reduces risks, and promotes efficiency, setting the project up for success from the start. Incorporating a Business Glossary during data conversion and cleansing not only ensures the success of the project but also lays the groundwork for ongoing data quality, governance, and effective communication within the organization.	Open

IV&V Findings and Recommendations
ⓛ Software Development

#	Key Findings	Criticality Rating
20	**Risk – Having agile ceremonies that are too brief can lead to several disadvantages:** *Insufficient sprint planning and coordination could lead to inefficient development processes, poor system designs, and project delays.* There is currently a lack of depth in the questions asked during the Daily Scrum. Standard questions that address understanding of what was completed the previous day and whether any issues need to be addressed are missing. This could lead to missed issues and work not being completed within the project schedule, which could result in missed deadlines and extended timelines. IV&V has noted that at least in one meeting, no developers attended the meeting. Brevity can be beneficial but it's important to ensure that agile ceremonies, e.g., Sprint Planning, allow for meaningful dialogue and effective collaboration. If discussions are too brief, transparency regarding team progress and challenges may diminish, impacting collaboration. After reviewing the UI Solution Provider's RFP Response Without OF11-acacent_RFPRespone_WithoutOF11_Redated.pdf page 45, it is shown that the UI Solution Provider explains what happens while utilizing a hybrid approach but does not convey the practice of a hybrid approach. Based on the Scrum Alliance, some basic questions such as: • What did you do yesterday to support the team's progress toward the sprint goal? • What will you do today to support the team's progress toward the sprint goal? • Are there any impediments blocking your progress or the team's progress toward the sprint goal? (continued on the next slide)	Medium

IV&V Findings and Recommendations

L Software Development

#	Key Findings	Criticality Rating
	Having agile ceremonies that are too brief can lead to several disadvantages: 1. Inadequate Discussion: Key topics may be rushed, preventing thorough discussion and leading to unresolved issues. 2. Lack of Engagement: Team members may feel pressured to speak quickly, resulting in less meaningful participation and lower engagement. 3. Missed Insights: Important insights or feedback may be overlooked if there isn't enough time to delve into details. 4. Poor Decision-Making: Quick decisions may be made without sufficient information or input, increasing the risk of errors. 5. Increased Frustration: Team members may feel frustrated if they can't fully express their thoughts or concerns, potentially leading to dissatisfaction. 6. Incomplete Action Items: There may not be enough time to clearly define action items or follow-ups, leading to confusion about responsibilities. 7. Limited Team Cohesion: Brief ceremonies can hinder relationship building, reducing team cohesion and trust over time. 8. Higher Risk of Misalignment: Brief meetings may fail to ensure that everyone is on the same page regarding goals and priorities.	Medium

Recommendations	Status

IV&V recommends, based on Scrum Alliance guidelines and PMBOK Best Practices, that
 1. For Sprint Reviews, the meeting organizer verify adequate stakeholder representation at the start of the meeting to ensure a comprehensive sprint review.
 2. Additional questions should be asked to ensure the proper execution of a Scrum meeting and Sprint Planning meetings. As a guideline,
 3. The following durations for key Scrum events for 2-week Sprints:
     a. Sprint Planning, up to 4 hours.
     b. Daily Scrum, 15 minutes. (continued on the next slide)
	Open

IV&V Findings and Recommendations
L Software Development

Recommendations	Statu
c. Sprint Review, 2-4 hours. d. Sprint Retrospective, up to 1.5 hours. These timeboxes are recommended to keep the events efficient and focused, ensuring the team spends most of their time on value-adding work while still having enough time for planning, inspection, and adaptation.	Open

IV&V Findings and Recommendations
(L) Software Development

#	Key Findings	Criticality Rating
24	Preliminary Concern – **Source code quality threshold:** *The absence of a source code quality threshold in tools like SonarQube can potentially impact both short-term productivity and long-term system stability.* During the Benefits Sprint Planning meeting on 10/10/2024, 1. The UI Solution Vendor confirmed they will use tools like SonarQube for code quality inspection and review. 2. However, UI PMO personnel confirmed that the project has not set a source code quality threshold. Setting a quality threshold in SonarQube or similar tools establishes a benchmark that enforces clean, secure, and maintainable code, reducing long-term risks and facilitating sustainable growth. The absence of a source code quality threshold in tools like SonarQube can lead to several significant issues, potentially impacting both short-term productivity and long-term system stability, for example, 1. Technical debt accumulation that leads to hard-to-maintain codebases, requiring more time and effort to fix issues later on. 2. Increased Defects and Bugs: Defects may proliferate, eventually requiring extensive testing and debugging, especially as the project scales. 3. Security Vulnerabilities: Critical vulnerabilities may reach production, posing serious security risks and potentially leading to costly breaches. 4. Reduced Code Maintainability: Source code without quality checks can lead to productivity issues and a slowdown in development velocity. 5. Lack of Accountability: Developers may skip best practices, leading to inconsistencies across the codebase. Quality thresholds promote accountability among developers. (continued on the next slide)	Medium

IV&V Findings and Recommendations

L **Software Development**

#	Key Findings	Criticality Rating
	6. Performance Issues and Poor User Experience: Unchecked code can lead to inefficient, resource-heavy code. This can affect performance, responsiveness, and user satisfaction, especially in resource-sensitive environments.	Medium

IV&V Findings and Recommendations
(L) **Software Development**

#	Key Findings	Criticality Rating
26	Issues – **Sprint Retrospectives**: *The absence of a Sprint Retrospective in an agile IT project can have several negative impacts.* A Sprint Retrospective is one of the key ceremonies in Scrum and other agile frameworks, focused on continuous improvement. It is an agile meeting held at the end of each sprint to allow the team to reflect on their performance, discuss what went well, identify areas for improvement, and agree on actionable changes for future sprints. Currently, the UI project lacks Sprint Retrospectives at the end of each development sprint. Some of the primary consequences of absence of a Sprint Retrospective in an agile IT project are: 1. Missed Opportunities for Continuous Improvement. 2. Increased Frustration and Low Morale of team members. 3. Lack of Team Alignment and Communication. 4. Reduced Product Quality and Customer Satisfaction. 5. Missed Innovation and Learning. Retrospectives are essential for fostering continuous improvement, ensuring agile processes are truly iterative and adaptive. Without a Sprint Retrospective, an agile IT project risks becoming static and inefficient, with reduced quality, team cohesion, and customer satisfaction.	Medium

Recommendations	Statu
*Recommendations found on the following slide**	Open

IV&V Findings and Recommendations

(L) Software Development

Recommendations	Statu
IV&V recommends: 1. Introducing regular Retrospectives: Schedule a Sprint Retrospective at the end of each sprint to give the team dedicated time to reflect on the sprint's successes, challenges, and areas for improvement. 2. Setting clear goals for retrospectives: Define specific objectives for retrospectives, such as improving processes, enhancing team communication, or identifying technical obstacles. 3. Encouraging open and constructive feedback: Foster a safe environment where team members feel comfortable sharing their thoughts and concerns. 4. Using structured formats: Adopt retrospective formats that guide discussions, like "Start, Stop, Continue" or "What Went Well, What Didn't, What Can Be Improved." These structures help keep discussions focused and actionable. 5. Assigning action items: Document key takeaways and assign clear action items with owners and deadlines. Follow up on these items in subsequent retrospectives to ensure improvements are implemented. 6. Involving stakeholders: Occasionally, involve key stakeholders to gain additional perspectives. 7. Leveraging Retrospective Tools: Use tools like Jira, Miro, or MURAL's retrospective feature to streamline and record feedback. 8. Making retrospectives consistent: Consistently holding retrospectives builds a rhythm and habit within the team, making continuous improvement a natural part of the development process. 9. Encouraging small, iterative Improvements: Small adjustments or incremental changes often lead to sustained improvements and are easier to adopt. 10. Monitoring the impact: Track whether changes from retrospectives improve team velocity, quality, or collaboration. Reviewing the impact helps refine the process and shows the value of retrospectives to the team.	Open

IV&V Findings and Recommendations
Ⓜ Project Schedule and Cost Management

#	Key Findings	Criticality Rating
21	Risk—Enhancing Project Clarity: Identifying Critical tasks in the Project Schedule: To maintain schedule clarity, all critical tasks on the project schedule should be explicitly identified using a clear and consistent method (e.g., highlighting). By explicitly identifying critical tasks using a clear and consistent method, the Project Manager can ensure everyone involved is aware of the most important tasks, leading to better prioritization, communication, and, ultimately, a higher chance of project success. The project schedule should follow proper formatting to ensure all stakeholders understand the critical path and are aligned.	Low

Recommendations	Status
IV&V recommends: • All tasks that are on the critical path be highlighted in a different color.	Open

Update(s)
10.28 - IV&V understands that the UI Solution Vendor has hired a resource to work on the schedule. They continue to refine their schedule to add more detail and have reported that they will have an updated version the week of 11/11/25.

IV&V Findings and Recommendations
(M) Project Schedule and Cost Management

#	Key Findings	Criticality Rating
22	Risk—**Incomplete Project Schedule** The HI DLIR project, initiated on March 12, 2024, lacks a complete schedule for stakeholders to reference despite being well into the development and requirements-gathering phases. Without a solidified schedule, tracking progress effectively is challenging. Stakeholders cannot accurately measure project velocity or monitor burndown rates. The inconsistency is evident in the current schedule, specifically requirements gathering, where all child items for requirements sessions are assigned the same 210-day duration. IV&V would expect these items to have distinct start and stop dates, levels of effort (LOE), and dependencies outlined. Representing the entire requirements-gathering effort as a single block of time is inaccurate and could mislead stakeholders about project progress and workload distribution. Due to the lack of a detailed project schedule, stakeholders are likely to face challenges in accurately assessing the project's progress and identifying potential delays. This can result in poor resource management, missed deadlines, and potential project scope creep.	Medium

Recommendations	Status
IV&V recommends: • Developing and finalizing a detailed project schedule. • Regularly updating the project schedule to reflect the actual progress and changes. • Using the schedule as a source of truth to measure and report on project velocity and burndown rates to better manage project performance. • Reevaluate requirements gathering tasks in relation to the project schedule.	Open

IV&V Findings and Recommendations

(M) ## Project Schedule and Cost Management

#	Key Findings	Criticality Rating
24	Issue—During requirement sessions it has been observed there is a lack of notes and post meeting actions items being shared from the vendor. This could lead to missed action items, miss communication and lack of tracking of accomplished work from previous meetings.	Low

Recommendations	Status
Ensure after every meeting notes and any action items be sent to the meeting participants for review.	Open

IV&V Findings and Recommendations

L **Requirements Management**

#	Key Findings	Criticality Rating
4	***Issue** –* **Traceability Concerns in Requirements Traceability Matrix and Azure DevOps Feature Items:** *IV&V identified anomalies with the traceability and linking of Requirements Traceability Matrix items to Feature items in Azure DevOps. During the review of the tax backlog features, IV&V found that 91 out of 149 Tax Features had no link to an existing Requirement. Several features were identified with the same title as an existing Requirement but were not linked (e.g., T1.71 is not linked to a feature, yet there is a feature with the same title within the tax backlog that isn't linked, such as Feature #39125). Numerous work items in Azure DevOps displayed related items listed as "Work item not found or no permission." Lack of traceability and proper linking can lead to incomplete or inaccurate tracking of project requirements and features. Potentially corrupted links may hinder project progress and cause delays. Misalignment between requirements and features could result in unmet project objectives.*	Medium

Recommendations	Status
IV&V recommends conducting a thorough review of all related items in Azure DevOps to identify and correct any corrupted or missing links. Additionally, IV&V recommends establishing a routine audit process to ensure ongoing traceability and proper linking of requirements to features. If needed, additional training or guidance to team members on the importance of maintaining accurate and consistent links between requirements and features in Azure DevOps could be helpful.	Open

Update(s)
*Updates found on the following slide**

IV&V Findings and Recommendations

Ⓛ Requirements Management

Update(s)

9/26/2024 –
During this reporting period, IV&V executed a similar analysis for the Benefits RTM and found that of the total 248 features, 125 lack a link to an existing requirement in the RTM. IV&V recommendations remain the same to review the RTM and address traceability concerns.

8/26/2024 –
IV&V reviewed the tax backlog again and found that two more features have been added to the backlog, bringing the total to 151 tax features. Of these, 92 features still need a link to an existing requirement, further exacerbating the traceability concerns. Limited progress has been identified with this risk. According to the 20240901 Project HUI Huaka'i Weekly Status Report, the UI Solution Vendor has partnered with a subcontractor to supplement in the areas of Requirements Gathering. Recommendations remain consistent.

10/23/2024 –
During this reporting period, IV&V executed another analysis for both Benefits and Tax backlogs and found:
- Tax has a backlog total of 163 features, of which 99 lack a link to an existing requirement. This domain has had no measurable change.
- Benefits has a backlog of 248 features, of which 78 lack a link to an existing requirement. This is an encouraging 20% increase of features linked to an existing requirement in the RTM since the last reporting period, showing improvement.

Due to the lack of measurable progress in the Tax domain over the course of four reporting periods, IV&V is raising this risk to an issue.

IV&V Findings and Recommendations

Ⓛ Requirements Management

#	Key Findings	Criticality Rating
18	**Preliminary Concern – Inconsistent Use of Status Fields in ADO Boards for Benefits and Tax Teams:** *The Benefits and Tax teams are utilizing different fields and categories to track the status of their user stories in Azure DevOps (ADO). Specifically, the Benefits team is using both the "Requirement State" and "State" fields, sometimes in combination, to track the progress of user stories. In contrast, the Tax team appears to be using these fields differently or some fields not at all. This inconsistency may result in discrepancies in project reporting. For instance, several user stories on the Benefits ADO board were found with a "State" field marked as "Review," while the "Requirement State" field was marked as "Done." Alternatively, in the Tax ADO board, a Requirement State field of a user story may be marked as "Done", but the State field displays as "New". These discrepancies raise concerns about the accuracy of project status reports if the teams continue to use their ADO boards inconsistently.* *As a result of inconsistent usage of status fields across the Benefits and Tax teams in ADO, there is a potential for inaccurate reporting on project progress and user story statuses. This lack of uniformity could lead to miscommunication, misinterpretation of project status, and potential delays in addressing issues, as stakeholders may not have a clear and accurate picture of project progress. This could result in degraded quality of project tracking and oversight, potentially leading to missed deadlines or unrecognized project risks.*	Low

Recommendations	Status
Recommendations found on the following slide*	**Closed 10/28**

IV&V Findings and Recommendations

(L) Requirements Management

Recommendations	Status
IV&V recommends establishing a standardized process for tracking user story statuses in ADO across all teams, ensuring that both the "Requirement State" and "State" fields are used consistently. Conduct training sessions for both the Benefits and Tax teams to align their usage of ADO fields. Implement regular reviews of ADO board usage to ensure compliance with the standardized process. Update project reporting procedures to reflect any changes in ADO board usage and ensure accuracy.	**Closed 10/28/2024**

Update(s)
Close this finding as of 10/28/2024: During this reporting period, additional information was acquired to clarify the vendor's use of these fields. IV&V found that these two fields are used for two different workstreams. The requirements state fields reflects how BA's interact with State SMEs in the context of requirements gathering activities. The State field represents it's status in the development lifecycle. As this has been clarified, IV&V finds this to be satisfied and is no longer considered a concern.

IV&V Findings and Recommendations
(M) Human Resource Staffing Management

#	Key Findings	Criticality Rating
3	Risk – ***Monitor and track project resourcing:*** *It is the nature of IT projects that resources can be onboarded/offboarded during the project's duration. Onboarding/offboarding impacts project areas such as team dynamics, project momentum, and productivity.*	Medium

Recommendations	Status
IV&V recommends that the HUI Huaka'i project • Monitor and track project resourcing as resources are onboarded/offboarded and the impact onboarding/offboarding has on areas such as team dynamics, team morale, project momentum, productivity, re-assignment of responsibilities, and knowledge transfer (KT). • Provides a Resource Management Plan.	Open

Update(s)
10/31/2024 - IV&V has reviewed the UI Solution Vendor's Resource Management Plan. DLIR/UI has hired three Unemployment Insurance Subject Matter Experts (SMEs)—a Benefits UI SME, a Tax UI SME, and an Appeals UI SME—along with a Behavioral Insights Analyst. IV&V remains concerned that the lack of sufficient resources in other areas may introduce several risks, such as reduced productivity and efficiency, quality compromises, employee burnout, and delayed time-to-market.
09/30/2024 - The project has added three (3) new contractors that are going to initially assist with Appeals Requirements Gathering. IV&V is concerned that the lack of sufficient resources in other areas, may introduce several risks: 1. Delays in Project Timeline: Key tasks may remain incomplete, resulting in overall project delays. 2. Resource Shortages: A lack of manpower could overburden existing team members, negatively impacting productivity and quality. 3. Scope Creep: Struggling to meet original goals may lead to scope changes that complicate timelines and budgets. 4. Lower Quality Deliverables: Insufficient skills and expertise may compromise the quality of work, affecting project success. (*continued on the next slide*)

IV&V Findings and Recommendations
(M) Human Resource Staffing Management

Update(s)
5. Increased Risk of Burnout: Existing staff may face burnout from increased workloads, leading to turnover and further resource challenges. 6. Stakeholder Dissatisfaction: Delays or poor-quality outcomes can frustrate stakeholders, potentially damaging relationships and trust.
08/31/2024 - The UI Solution Vendor is updating the Resource Management Plan. IV&V has not reviewed the final Resource Management Plan.

IV&V Findings and Recommendations
(M) *Scope Analysis*

#	Key Findings	Criticality Rating
28	Risk – ***Incomplete Scope Limiting IV&V Reporting Capabilities:*** *IV&V cannot conduct a meaningful analysis of project scope due to missing data in several critical areas. Specifically, IV&V lacks:* *- An estimated percentage of RTM scope implemented,* *- The estimated percentage of testing completion for the current scope,* *- Dates and explanations for any scope changes.* *Without a finalized RTM and detailed testing dates, IV&V is unable to calculate these metrics. This data gap impedes a comprehensive assessment of project scope and health. The Hawaii UI PMO has indicated they are collaborating with the UI Solution Vendor to supply the necessary metrics, which are expected to be available for November reporting.* *As a result of insufficient RTM and testing information, IV&V cannot generate accurate estimates or track project scope effectively, likely resulting in an incomplete understanding of project progress and quality. This may lead to undetected scope issues or delayed identification of project health risks, potentially degrading project management effectiveness and stakeholder confidence.*	Medium

Recommendations	Status
IV&V recommends that the HUI Huaka'i project • Monitor and track project resourcing as resources are onboarded/offboarded and the impact onboarding/offboarding has on areas such as team dynamics, team morale, project momentum, productivity, re-assignment of responsibilities, and knowledge transfer (KT). • Provides a Resource Management Plan.	Open

IV&V Findings and Recommendations
Ⓛ Risk & Issue Management

#	Key Findings	Criticality Rating
25	Issue – **RAID (Risks, Actions, Issues and Decisions) Log:** *The absence of a RAID log can have several significant and potentially costly impacts.* The Risk Management Plan does not mention the creation and maintenance of a RAID log for the project. The RAID log is a key tool in effective risk management and overall project management. This document is a central repository that helps project teams systematically capture, track, and address four crucial elements: Risks, Actions, Issues, and Decisions. The absence of a RAID log can affect everything from project timelines to overall success. Without a structured way to track Risks, Actions, Issues, and Decisions, the project team may face the following challenges: 1. Increased Risk Exposure. 2. Lack of Accountability for Actions 3. Inefficient Issue Management. 4. Decisions Get Lost or Revisited Unnecessarily. 5. Poor Communication and Lack of Transparency. 6. Diminished Accountability and Documentation. 7. Potential for Project Failure or Delay.	Medium

Recommendations	Status
The RAID log is essential to project success, providing a centralized, structured approach to managing potential risks, key actions, issues, and critical decisions. Without a RAID log, the UI project is prone to inefficiency, unexpected challenges, and a lack of alignment, which can severely hinder performance and outcomes. (continued on the next slide)	Open

IV&V Findings and Recommendations

Ⓛ Risk & Issue Management

Recommendations	Status
IV&V recommends the UI project start using a RAID log immediately and follow these Best Practices: 1. Regular RAID log updates. 2. Prioritization: prioritize issues based on impact and likelihood to focus on critical items. 3. Assign clear ownership for each RAID item to ensure accountability. 4. Record details like potential impact, mitigation strategies, status, and resolution efforts.	Open

IV&V Findings and Recommendations
(M) Project Schedule and Cost Management

#	Key Findings	Criticality Rating
27	Risk – **Document Deliverables are late.** *The Project Team Training Plan, Security Plan, UIS Implementation Plan, and Vendor Management Plan, due 10/22/2024, 10/28/2028, 10/28/2024, and 10/30/2024, respectively, have not been delivered according to the schedule.*	Medium

Recommendations	Status
IV&V recommends that the UI Solution Vendor: • Submit a change request to reschedule late deliverables • Adjust the project schedule • Deliver the project documents as soon as possible	Open

Appendix A – IV&V Criticality Ratings

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 evaluated and implemented as soon as feasible.
L	A low rating is assigned if there is a possibility of slight impact to product quality, scope, cost, or schedule. Minimal disruption is likely and some oversight is most likely needed to ensure that the risk remains low. Mitigation strategies should be considered for implementation when possible.

Appendix B – IV&V Standard Inputs

Artifacts reviewed during the reporting period:
October Project HUI Huaka'i Weekly Status Reports
Project Management Plan
CATCH and HI DLIR Cleansing Meeting Agendas for the weekly meetings in October 2024.
Data Cleansing meeting notes (sent by email) for the weekly meetings in September 2024
Ongoing UI Data Conversion_Weekly.docx
Development (Appeals) Features Backlog - Boards (azure.com)
Development (Benefits) Team Epics Backlog - Boards (azure.com)
Project Schedule
Resource Management Plan
Test Master Plan
Decision Log
Data Conversion Plan

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.

Solutions that Matter