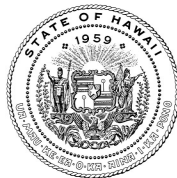JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA

KEITH A. REGAN
COMPTROLLER
KA LUNA HO'OMALU HANA LAULĀ

CHRISTINE M. SAKUDA
CHIEF INFORMATION OFFICER
LUNA 'ENEHANA

STATE OF HAWAI'I | *KA MOKU'ĀINA O HAWAI'I*
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | *KA 'OIHANA LOIHELU A LAWELAWE LAULĀ*

OFFICE OF ENTERPRISE TECHNOLOGY SERVICES | *KE'ENA HO'OLANA 'ENEHANA*

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, Hawai'i 96813

The Honorable Nadine K. Nakamura
Speaker and Members of the
House of Representatives
Thirty-Third State Legislature
State Capitol, Room 431
Honolulu, Hawai'i 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 Hawai'i, Department of Labor and Industrial Relations (DLIR) Hawai'i Unemployment Insurance Modernization (Hui Huaka'i) Project
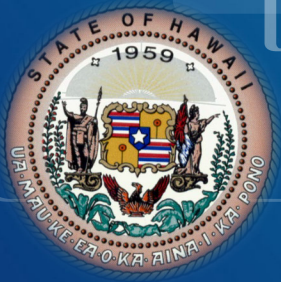
In accordance with HRS section 93-16, this report may be viewed electronically at http://ets.hawaii.gov (see "Reports").

Sincerely,

Christine M. Sakuda
Chief Information Officer
State of Hawai'i

Attachments (2)

HUI Huaka'i Project

Department of Labor and Industrial Relations (DLIR)

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

For Reporting Period: **[December]**

Draft Submitted: January 9, 2025

Final Submitted January 17, 2025

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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 currently classified as low-risk with a Green status. In December, the project successfully completed the RTM initiative, which enhanced the level of detail in the project schedule. This schedule was re-baselined on December 31, 2024, and reflects a Schedule Performance Index (SPI) of 0.93.

The Hawaii UI PMO has been instrumental in the success of the project by organizing effective daily and weekly meetings, ensuring deliverables are completed on time, and creating a PMO office that fosters collaboration with vendors and stakeholders. The HUI Huaka'i Project performs well in key areas such as data conversion, requirements gathering, organizational change management (OCM), and security. These areas are holding productive meetings and demonstrating measurable progress.

At the end of the month, the UI Solution Vendor submitted an updated project management plan, which includes stakeholder management, change and scope management, and resource management plans, along with the revised baseline schedule. These documents are under review and have not yet been approved by the Hawaii UI PMO. It is anticipated that these project areas will change from yellow to green after a document review determines they meet best practice standards and are approved by the Hawaii UI PMO.

IV&V focused attention on the Requirements Traceability Matrix (RTM) and did an in-depth analysis against the UI Solution Vendor-provided traceability framework. There is a clear parent-child relationship from Epics to Features to Requirements, but the observed gaps in feature-to-requirement traceability (154 unlinked features) indicate there could be a misalignment between the intended framework and actual implementation.

The IV&V team reported three (3) preliminary concerns, three (3) issues, and five (5) risks, which are detailed in the IV&V Findings and Recommendations section of this report.

The IV&V team submitted the monthly report in December and received multiple project documents that are under review, including:
* Project Management Plan (PMP)
* Stakeholder Management Plan
* Resource Management Plan
* Scope Management Plan
* Change Management Plan
* Project Schedule

Key Risks

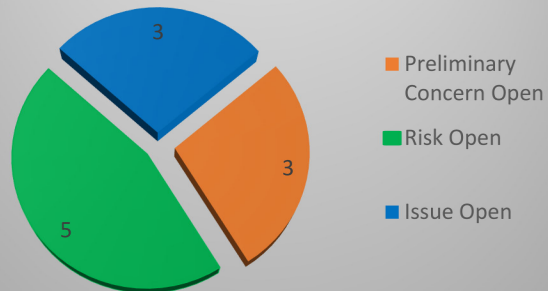| Category	Risk/Issue	Impact	Recommended Mitigation
Project Status	• Overall status is Green but key management areas are Yellow • RTM, Schedule, PMP, and other foundational documents delivered 12/31/2024 and are pending approval	• High risk of project management effectiveness degrading in some areas	• Fast-track approval of PMP and Schedule
Requirements Management	• RTM initiative in progress but IV&V analysis identified traceability gaps	• May affect scope clarity and deliverable quality	• Mitigate identified gaps
Resource Planning	• Resource Management Plan pending approval	• Resource constraints may impact the timeline	• Fast track approval of the Resource Management Plan • Align staffing with milestones
Project Schedule	• Project Schedule delivered and baselined 12/31/2024 and is pending approval	• New schedule reports SPI	• Approve project schedule

Changes Since Last Period

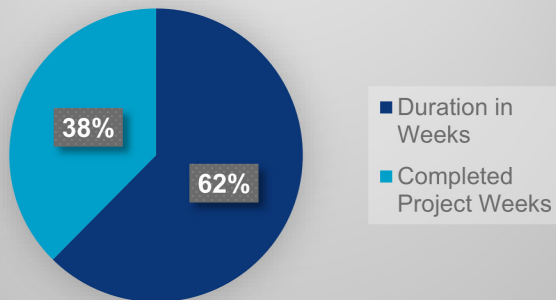| Category	November Status	December Status	Notable Changes
Project Management	Yellow	Yellow trending Green	UI Solution Vendor delivered Project governance documents
Requirements Management	Yellow	Yellow trending Green	RTM updated to include all requirements
Resource Planning	Yellow	Yellow tending Green	Resource management plan was delivered
Project Schedule	Yellow	Yellow trending Green	Schedule was delivered and baselined
UI Solution Vendor delivered a Project Management Plan that included the Stakeholder, Change, Scope, Quality, and Resource Management Plan on December 31, 2024. Additionally, the RTM was updated, and the schedule was revised and baselined.			

Executive Summary

IV&V identified (11) eleven findings that include two (3) preliminary concerns, three (3) issues, and five (5) risks) for this reporting period. Findings, Risks and Issues, Project Cost, and Scope Completion are represented below.

Findings by Type

- Preliminary Concern Open
- Risk Open
- Issue Open

Solution Scope Completion

- Duration in Weeks
- Completed Project Weeks

Open Risks/Issues by Category/Priority

Category	Value
Project Organization…	1
Data Conversion/Management	1
Scope	1
Software Development	2
Schedule	1
Cost and Schedule…	1
Contract Management	1
Requirements Management	1
Project Organization &…	1
Human Resource Management	1

Medium

Executive Summary

| Month	Expenditure	Cumulative Expenditure	Project Award Amount ($46.5 M)
April	$ 536,437.50	$ 536,437.50	$ 46,500,000.00
May	$ 301,375.00	$ 837,812.50	$ 46,500,000.00
June	$ 125,000.00	$ 962,812.50	$ 46,500,000.00
July	$ 293,854.15	$ 1,256,666.65	$ 46,500,000.00
August	$ 1,625,000.00	$ 2,881,666.65	$ 46,500,000.00
September	$ 439,062.45	$ 3,320,729.10	$ 46,500,000.00
October	$ 2,408,548.00	$ 5,729,277.10	$ 46,500,000.00
November	$ -	$ 5,729,277.10	$ 46,500,000.00
December	$ 577,980.46	$ 6,307,257.56	$ 46,500,000.00

Cumulative Expenditures vs. Project Award Amount
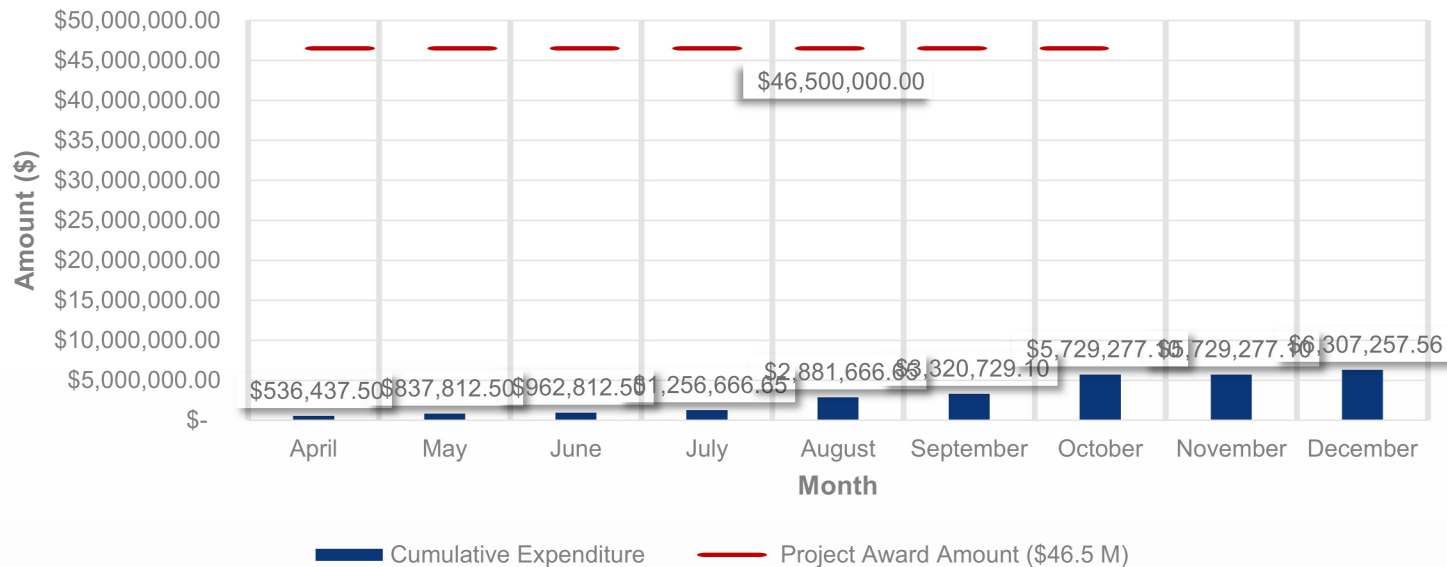
STANDARD REPORT SECTIONS

Solutions that Matter

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Project Organization and Management

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	M	M	Project Organization Management	Project Organization Management is Yellow but trending Green with the following **Observations:** UI Solution Vendor delivered a Project Management Plan that included the Stakeholder, Change, Scope, Quality, and Resource Management Plan on December 31, 2024. Additionally, the RTM was updated, and the schedule was revised and baselined. IV&V is in the process of reviewing the updated documents. **IV&V Recommends:** • Creating a consistent meeting schedule. • Distributing agendas 24 hours before the meetings. • Finalizing schedule details. **Related Open Findings:** **Finding #10** – Misalignment of Elicitation Session Agendas **Initial Observation # 29** – Meeting Mismanagement

Cost and Schedule Management

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	M	M	Cost and Schedule Management	Cost and Schedule Management is Yellow but is trending Green with the following **Observations**: The UI Solution Vendor delivered an updated, baselined version of the schedule on December 31, 2024, in conjunction with the RTM, Project Management Plan, and other foundational documents. IV&V is in the process of reviewing the schedule and other foundational 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. • Updating the Project Schedule to include the number of personnel and their appropriate skill levels. • Highlighting tasks that are on the critical path 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 – **Closed due to submitted change request 11/28/2024**

Requirements Management

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	M	M	Requirements Management	Requirements Management is Yellow but is trending Green with the following **Observations**:

Requirements Management is Yellow but is trending Green with the following **Observations**:

The schedule has been updated to include greater granularity for the requirements initiative. During this reporting period, IV&V observed continued progress with the Benefits team, where the number of features lacking links to existing requirements has further reduced to 51 out of 254 total features. This indicates sustained improvement in addressing traceability issues. However, the Tax team now has 103 out of 166 features without links to requirements, an increase since the last reporting period.

In addition, IV&V reviewed the project's Requirements Traceability Matrix (RTM) against the vendor-provided traceability framework. While the chart depicts a clear parent-child relationship from Epics to Features to Requirements, the observed gaps in feature-to-requirement traceability (154 unlinked features) highlight a misalignment between the intended framework and actual implementation.

Further analysis of requirements-to-feature relationships confirmed that most requirements are linked to at least one feature, with only five requirements lacking any link. This discrepancy suggests that while traceability exists from a requirements perspective, unlinked features are not being accounted for within the RTM, raising critical concerns about scope control and governance:

IV&V Recommends:

- Prioritize the investigation of unlinked features to determine their origin and whether they represent optimization efforts, new scope, or governance gaps.
- Update the RTM to align with the actual project scope, ensuring all features and requirements are accurately tracked.
- Strengthen governance processes to align the RTM's framework with practical implementation, preventing scope creep and reinforcing traceability.
- Implement regular audits of traceability from both requirements-to-features and features-to-requirements perspectives to identify and address gaps early.
- Reinforce resource planning and accountability by finalizing the RTM and ensuring it serves as a reliable tool for scope and resource management.

Related Findings:
Finding #4 – Traceability Concerns in Requirements Traceability Matrix and Azure DevOps Feature Items

System Architecture and Design

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. A change request was submitted, and the new delivery date is January 31, 2025.

Testing (Sprint, Unit, System Integration, UAT)

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 December, IV&V completed its review of the solution vendor's Master Test Plan and provided observations to HI. While the plan establishes a foundational framework for testing activities—covering objectives, methodologies, defect management, and reporting metrics—it lacks critical components necessary for a comprehensive and actionable strategy. Gaps include missing detailed test schedules, regression testing strategies, system integration, and stress testing procedures and defined acceptance criteria for integration testing. The plan also omits key elements such as change management processes, training requirements, a glossary, and a test script inventory. Additionally, insufficient detail is provided on traceability, risk management, performance testing, environment and infrastructure specifications, and interface testing. These deficiencies compromise alignment with IEEE 29119 standards and the project's quality objectives. Testing cycles continue to operate regularly, and the project team is presenting working software on schedule. **IV&V Recommends:** • Add comprehensive schedules, estimates, and milestones for all testing activities. • Clearly define roles and responsibilities for test activities and decision-making. • Expand traceability processes to ensure alignment between system and software requirements. • Include a section on change management and a version control history. • Identify and document risks, along with mitigation strategies. • Establish quality control measures and metrics for all testing phases, not just UAT.
L	L	L	Operational Preparedness	**There are no updates for this period.**

Data Conversion/Management

[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 effectively. Data Conversion efforts, which currently focus on finalizing the Data Dictionaries (DDs), have completed the reviews for the Mainframe and Supplemental DDs (Web Admin, ICON, and Sides). The project is commencing the Transformation phase of the Data Conversion. The Data Cleansing vendor leverages SAP Information Steward to establish optimal business rules that ensure high-quality data for HI DLIR's modernization efforts. A monthly Data Scorecard is produced, detailing the results of data that failed the defined cleansing rules. Each table is assigned a score from 0 to 10 based on the number of data points that failed. Any discrepancies are reviewed collaboratively with the HI DLIR UI Team to refine rules or implement necessary cleansing actions. According to the January 2nd 2025 Data Scorecard (data scores for December 2024), all tables with reported scores fall within the range of 9.8 to 10. The project manages Data Dictionary tasks using a Conversion Traceability Matrix in Excel, while Data Cleansing tasks are tracked through sprint boards in Azure DevOps (ADO), which IV&V currently cannot access. IV&V found the Data Conversion Plan document to be generally adequate. However, IV&V expects the next iteration to provide more detail on key areas such as user training, communication, downtime, and potential business disruptions. **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.

Security, Training/Knowledge Transfer, Interfaces, Quality Management

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	L	Security	Security is Green with the following **Observations:** Security Requirements Gathering is in progress.
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 submitted a change request to change the deliverable due date to 1/31/2025.
L	L	L	Interfaces	**There are no updates for this period.**
L	L	L	Quality Management	**There are no updates for this period.**

Software Development

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 project continues to operate without a defined source code quality threshold, which poses risks to both short-term productivity and long-term system stability. The development team has started using SonarQube, a code quality inspection tool, which is a positive development. Sprint Retrospectives remain absent, with only Sprint Review sessions conducted. Agile ceremonies, while still relatively brief, have shown improvement with more meaningful discussions observed during Sprint Planning and other sessions. Despite this progress, the absence of a source code quality threshold and Sprint Retrospectives limits opportunities for process improvement and team collaboration. • The Benefits team continues to show improvement in aligning planned and actual sprint activities, with actual completions consistently close to planned goals in recent sprints. For the Tax team, variability persists, with some sprints achieving lower-than-planned actual completions. The total requirements have increased to 1722, with 257 requirements completed, demonstrating progress but leaving a substantial gap. The Product Backlog has grown significantly to 888 user stories, while completed stories remain at 77, highlighting the need to improve development throughput. On a positive note, validated tasks in the sandbox environment have risen, indicating ongoing progress toward functional testing and release. **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 #24** - Source code quality threshold **Finding #26** - Sprint Retrospectives

Human Resources Staffing Management

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
M	M	M	Human Resources Staffing Management	Human Resources Staffing Management is Yellow trending Green with the following **Observations:** During this reporting period, the project has submitted the latest version of the Resource Management Plan, and IV&V will review and provide feedback. In December, the UI Solution Vendor added two developers and a software engineer to the project. **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 resource training is identified and scheduled. **Related Findings**: **Finding #3** – Monitor and Track Project Resourcing

Scope Analysis

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
M	M	M	Scope Analysis	Scope Analysis is Yellow but trending Green based on the following **Observations:** During this reporting period, conflicting information was observed regarding the RTM in the latest HUI status report. While the RTM is reported to be "in progress" as it will remain throughout the SDLC, the same report claims that "the RTM now includes all current known requirements." Additionally, the schedule and RTM were delivered on 12/31 and are under review by IV&V. IV&V anticipates that with a finalized schedule and RTM, the ability to accurately measure project scope and health will significantly improve in the next reporting period. However, the Testing schedule remains ambiguous, with only a general list of planned sprints available. Recent observations from IV&V raise concerns about potential scope creep and project governance, which IV&V will continue to monitor (see Finding #4). **IV&V Recommendations:** • Provide detailed Testing schedules, including milestones and deliverables, to support accurate measurement of testing progress and scope completion. • Establish a clear and consistent definition of RTM status to avoid conflicting reporting and ensure stakeholder alignment. 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 would be available for November reporting. IV&V has not seen these metrics. **Related Findings:** **Finding #28** – Incomplete Scope Limiting IV&V Reporting Capabilities

Contract Manaement, Communication Management

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
L	L	L	Contract Management	Contract Management is Green but is trending Yellow 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. The UI Solution Vendor has not provided an updated mitigation plan to address the Vendor Improvement Action Plan, and there were no follow-up meetings in December. Follow-up on a Vendor Improvement Plan ensures both the PMO and the Solution Vendor agree on what needs to improve. Additionally, it is important to monitor performance to ensure performance is improving and not degrading further. **IV&V Related Findings**: **Initial Observation #30:** UI Solution Vendor PIP follow-up
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. There is no finalized Stakeholder Management Plan. **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.

Risk and Issue Management

2 Months Prior	Prior Month	Current Month	Category	IV&V Observations
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 project is maintaining a Risk Register and a Decision Log as separate artifacts, which IV&V is going to review. **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. • Combining the Risk Register and Decision Log into a single RAID Log for better efficiency and tracking. • 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.

Technical Architecture

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.

OCM Activities	Date
The OCM Team December accomplishments included: • Posting intranet project updates • A holiday BYO Bento Session that included food, games, and prizes. Attendees learned more about the project through quizzes and other games. • Collecting change impacts and creating dashboards for the change management matrix.	December 2024

IV&V Findings and Recommendations
(M) 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
(M) 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)

12/23/2024
IV&V has observed mixed progress during this reporting period. A centralized repository for agendas, meeting minutes, and session recordings is being consistently utilized, as discussed during a tax RTM session. This represents a positive step towards standardization and accessibility. However, significant gaps remain, as 7 out of 11 monitored sessions lacked agendas, and 7 sessions had no meeting minutes, according to the central repository folders. Notably, the final week of monitoring demonstrated improvement, with agendas and meeting minutes present for all sessions and alignment between the agenda and actual meeting discussions was observed.

11/20/2024
During this reporting period, the tax requirements elicitation sessions paused for two weeks to accommodate a project-wide Requirements Traceability Matrix (RTM) initiative across all functional areas. Agendas for the new RTM initiative meetings lack detail, and there is no clarity on where agendas, meeting minutes, and action items are being documented or stored. The RTM sessions folder within the SharePoint for tax currently only contains meeting recordings.
IV&V recommends establishing a documented and consistent process across all functional areas for recording and sharing meeting agendas, minutes, and action items. This process should also define where these documents are stored and ensure accessibility for all project stakeholders.

IV&V Findings and Recommendations
Ⓛ Data Conversion/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. 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). 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.	Medium

IV&V Findings and Recommendations
(L) Data Conversion/Management

#	Key Findings	Criticality Rating
	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. 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. 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. The project has not yet initiated the development of a Business Glossary. The PMO believes that the Glossary of Terms provided in the Request for Proposal (RFP) is sufficient for the current stage of the project. (*Recommendations found on the following slide**)	Medium

IV&V Findings and Recommendations
(L) Data Conversion/Management

#	Key Findings	Criticality Rating
	However, the IV&V team highlights that a Glossary of Terms and a Business Glossary serve distinct purposes, particularly in the context of data management. IV&V expresses concern that postponing the creation of a comprehensive Business Glossary could lead to increased rework in later stages of the project. This delay may result in teams facing inefficiencies, including frequent clarifications of terminology, verification of mappings, and correction of errors caused by ambiguity. The project commenced data conversion and data cleansing activities in June 2024, and these activities are ongoing. 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.	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

Update(s)
12/31/2024   The project has not made any progress with defining a Business Glossary.   The PMO considers the Glossary of Terms in the RFP adequate for the project's current phase. However, the IV&V team emphasizes the distinct roles of a Glossary of Terms and a Business Glossary in data management. IV&V remains concerned that delaying the creation of a comprehensive Business Glossary may lead to inefficiencies and rework later, including frequent clarifications, mapping verifications, and error corrections due to ambiguity.

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

Ⓛ 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

Recommendations	Status

Establishing a source code quality threshold using tools like SonarQube involves defining measurable, enforceable standards for code quality, security, and maintainability. IV&V recommends:
1. Focus on metrics that matter most to the DLIR UI project. These metrics could be code smells, bugs, vulnerabilities, code coverage and technical debt.
2. Define quality gates that must be passed before code is merged or released. Examples of recommended thresholds are
      a) Bugs: No critical or blocker bugs.
      b) Vulnerabilities: No critical or blocker vulnerabilities.
      c) Code Coverage: Minimum of 80% or based on the project's needs.
      d) Code Smells: Defined maximum count or percentage per module.
      e) Duplications: Less than 5% code duplication.
3. Integrate SonarQube or similar tools with your CI/CD pipeline (e.g., Jenkins, GitHub Actions, Azure DevOps) and make quality gate failures block code merges or deployments to enforce compliance.
4. Use dashboards to track code quality trends over time and share reports with the team and management to demonstrate improvements or identify areas needing attention.
	Open

Update(s)
12/31/2024 The development team has started using SonarQube. However, the project has not made any progress with defining a source code quality threshold. IV&V is concerned that the lack of a source quality threshold could lead to increased

IV&V Findings and Recommendations

Ⓛ Software Development

Update(s)
defects, technical debt, critical security vulnerabilities reaching production, inefficient code, performance issues, and reduced development velocity.
11/30/2024 The project has not yet established a quality threshold, as the current focus is on gathering requirements.

IV&V Findings and Recommendations
Ⓛ 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	Status
Recommendations found on the following slide*	Open

IV&V Findings and Recommendations

L **Software Development**

Recommendations	Status
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. *Updates found on the following slide**	Open

IV&V Findings and Recommendations

(L) **Software Development**

Update(s)
12/31/2024 The project is yet to incorporate Sprint Retrospectives at the end of every development sprint. IV&V is concerned that the absence of sprint retrospectives at the end of each sprint could result in missed opportunities for continuous improvement, increased frustration and low morale among team members, misalignment and poor communication within the team, reduced product quality and customer satisfaction, and missed opportunities for innovation and learning.

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)
12/31 –The UI Solution Vendor submitted an updated RTM with an updated, baselined schedule on December 31, 2024. IV&V is in the process of reviewing the updated documents. **11/30 -** The UI Solution Vendor is expected to share an updated schedule version by the end of November. The UI Solution Vendor has been working on a mitigation plan to report accurate overall project performance in conjunction with the RTM and product roadmap. The plan was originally scheduled for delivery on 11/08/24 but was later pushed to 11/15/24. However, the mitigation plan was not shared by either of these dates, and no new delivery date has been set. **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

Ⓜ **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

Update(s)
12/31/2024 The UI Solution Vendor submitted an updated RTM with an updated, baselined schedule on December 31, 2024. IV&V is in the process of reviewing the updated documents. **12/23/2024** During this reporting period, according to the project's Decision Log, the schedule is slated to be re-baselined on 12/31, which will assist in resolving this risk and provide IV&V and the project more transparency in reporting. IV&V hopes to analyze this schedule and have more comments in the following reporting period. **11/18/2024** During this reporting period, IV&V observed efforts to update the project schedule, but it remains unfinished. IV&V will continue to monitor. Throughout November, the UI Solution vendor has been working on a mitigation plan and a schedule. Project Report 11/3 stated that the Mitigation plan would be delivered on 11/8. Project Report 11/10 stated that a mitigation plan would be delivered on 11/15. Project Report 11/17 did not mention a mitigation plan but stated that the schedule would be delivered on 11/30. Project Report 11/24 did not mention a mitigation plan but stated the schedule would be delivered on 11/30.

IV&V Findings and Recommendations

(M) **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

(M) **Requirements Management**

12/23/2024
During this reporting period, IV&V observed continued progress with the Benefits team, where the number of features lacking links to existing requirements has further reduced to 54 out of 254 total features. This indicates sustained improvement in addressing traceability issues. However, the Tax team now has 102 out of 166 features without links to requirements, an increase since the last reporting period.

In addition, IV&V reviewed the project's Requirements Traceability Matrix (RTM) against the vendor-provided traceability framework. While the chart depicts a clear parent-child relationship from Epics to Features to Requirements, the observed gaps in feature-to-requirement traceability (154 unlinked features) highlight a misalignment between the intended framework and actual implementation.

Further analysis of requirements-to-features relationships confirmed that most requirements are linked to at least one feature, with only five requirements lacking any link. This discrepancy suggests that while traceability exists from a requirements perspective, unlinked features are not being accounted for within the RTM, raising critical concerns about scope control and governance:

Unlinked Features: The absence of parent-child relationships for these features contradicts the RTM's framework, undermining the integrity of the traceability matrix.
Scope Creep: The unlinked features may reflect uncontrolled scope expansion, risking inefficient resource allocation and increased project delays.
Resource Planning and Accountability: Without a mature RTM and clearly defined scope, the project cannot plan or allocate resources effectively, creating risks for project delivery and resourcing.

Additionally, the 12/14/2024 Project HUI Huaka'i Weekly Status Report claims "full traceability" between requirements and user stories, deviating from the earlier project stance that traceability would be determined by requirements linked to features. IV&V found this claim to be inaccurate, as several requirements lack links to active user stories, and the inverse issue of unlinked features persists.

Updates continued on the following slide*

IV&V Findings and Recommendations

(M) **Requirements Management**

12/23/2024
Update continued:

Recommendations:
- Prioritize the investigation of the 154 unlinked features to determine their origin and whether they represent optimization efforts, new scope, or governance gaps.
- Update the RTM to align with the actual project scope, ensuring all features and requirements are accurately tracked.
- Strengthen governance processes to align the RTM's framework with practical implementation, preventing scope creep and reinforcing traceability.
- Implement regular audits of traceability from both requirements-to-features and features-to-requirements perspectives to identify and address gaps early.
- Reinforce resource planning and accountability by finalizing the RTM and ensuring it serves as a reliable tool for scope and resource management.

IV&V will continue to monitor the RTM initiative and reassess traceability compliance as further changes occur.

11/22/2024
Update Description:
The project's new RTM initiative, launched during this reporting period, is actively creating and updating additional features and requirements. This effort is resulting in a comprehensive overhaul and reevaluation of the entire RTM. Consequently, IV&V is unable to effectively evaluate and update traceability within the RTM at this time. While this initiative demonstrates alignment with PMBOK guidelines in areas such as "Manage Quality" and "Plan Risk Responses," significant misalignments remain, particularly concerning the maturity and timing of the RTM:

Delayed RTM Finalization (Scope Management): According to PMBOK's "Plan Scope Management" (5.1) and "Validate Scope" (5.5) processes, a finalized Requirements Traceability Matrix (RTM) should exist early in the project to ensure alignment between requirements and deliverables. The lack of a finalized RTM at this advanced stage of the project indicates gaps in project planning and execution, which undermine the project's ability to accurately track and manage scope.

Updates continued on the following slide*

IV&V Findings and Recommendations

(M) **Requirements Management**

11/22/2024

Update Continued:

Inadequate Monitoring (Monitoring and Controlling): PMBOK's "Monitor and Control Project Work" (4.5) emphasizes the importance of consistent oversight of critical project deliverables, including the RTM. The absence of a finalized and stable RTM highlights insufficient monitoring of traceability, which has led to recurring issues with incomplete links between requirements and features.

Lack of Proactive Risk Mitigation (Risk Management): PMBOK's "Plan Risk Responses" (11.5) stresses early identification and mitigation of risks, such as incomplete or corrupted traceability. The ongoing RTM initiative appears reactive rather than proactive, addressing problems that should have been identified and resolved earlier in the project lifecycle.

Resource Planning and Accountability (Resource Management): According to PMBOK's "Manage Team" (9.5) and "Develop Team" (9.4) processes, accountability for critical deliverables like the RTM should be established early on, and team members should have the necessary resources and training to execute effectively. The continued delay in RTM completion suggests deficiencies in resource planning, training, and team oversight.

IV&V Recommendation: To address these misalignments, IV&V recommends prioritizing the finalization of the RTM and establishing firm deadlines to bring traceability into compliance with project requirements and PMBOK best practices. Additionally, IV&V advises reinforcing stakeholder engagement, conducting a retrospective to identify process gaps, and implementing a proactive monitoring framework to prevent further delays.

IV&V will continue to monitor progress on the RTM initiative and reassess traceability compliance once the process stabilizes.

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)

12/31/2024
The project submitted the latest iteration of the Resource Management Plan to IV&V on 12/24/2024, and IV&V will review it.

11/30/2024
The project has added a part-time Project Manager (PM) and an additional Benefits Subject Matter Expert (SME). It is also planning to onboard another Tax SME and is in the process of hiring a junior Business Analyst (BA), a new Project Analyst for the Project Management Office (PMO), and a new Technical Lead. Additionally, the project has received approval for 5,000 contractor hours with the vendor, Guidehouse, for any required work. While these are positive developments for strengthening State-side resources, IV&V remains concerned that insufficient resources from the solution vendor could introduce significant risks.
(*continued on the next slide*)

IV&V Findings and Recommendations
Ⓜ Human Resource Staffing Management

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. 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

(M) *Scope Analysis*

Update(s)
12/23/2024 During this reporting period and the latest HUI status report, they report that the RTM is both in progress, as it will remain throughout the entire SDLC, and also completed, that "the RTM now includes all current known requirements." According to the Project Decision Log, the schedule and RTM are slated to be finalized by 12/31. Recent observations from IV&V raise concerns about scope creep and project governance, which IV&V will continue to monitor (see Finding #4). **11/18/2024** As of 11.18, a finalized RTM and Testing schedule remain to be finalized. IV&V is unable to calculate these project reporting metrics effectively at this time. IV&V will continue to monitor.

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 a slight impact on 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:
December 2024 Project HUI Huaka'i Weekly Status Reports
Project Management Plan
CATCH and HI DLIR Cleansing Meeting Agendas for the weekly meetings in December 2024.
Data Cleansing meeting notes (sent by email) for the weekly meetings in December 2024
Ongoing UI Data Conversion_Weekly.docx
Development (Appeals) Features Backlog - Boards (azure.com)
Development (Benefits) Team Epics Backlog - Boards (azure.com)
DLIR Traceability Matrix Team Epics Backlog - Boards
Appeals Requirements Sessions agendas and Meeting Notes
Benefits Requirements Sessions agendas and Meeting Notes
Project Schedule
Data Conversion Plan
Test Master Plan
Test Strategy Document, V2
Decision Log
HI DLIR Data Scorecard 1.2.25
RAID Log

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.

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