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November 24, 2021

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

The Honorable Scott K. Saiki,
Speaker, and
Members of The House of Representatives
Thirty-First State Legislature
Hawaii State Capitol, Room 431
Honolulu, Hawaii 96813

Dear President Kouchi, Speaker Saiki, and Members of the Legislature:

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

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

Sincerely,

Douglas Murdock (Nov 26, 2021 16:32 HST)

DOUGLAS MURDOCK
Chief Information Officer
State of Hawai'i

Attachment (1)

Hawaii Unemployment Insurance Modernization (HUI Mod) Project

Department of Labor and Industrial Relations (DLIR)

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

For Reporting Period: **October 2021**

Draft Submitted: 11/8/2021

Final Submitted: 11/19/2021

PUBLIC CONSULTING GROUP

Solutions that Matter

Overview

- Executive Summary
- IV&V Findings and Recommendations
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Executive Summary

The HUI Mod Project is no longer on track for go-live in October 2022 and should re-baseline the schedule to account for increases in project scope related to the Employer Portal, as well as upcoming changes for Localization and Identity Proofing. Project activities are behind schedule across scoping, development, testing, and data conversion activities for all workstreams. Testing activities remain delayed which means that code quality remains unknown. The Project has also experienced resource constraints which have delayed Tax scoping and development activities. This month, the IV&V team opened eight (8) new risks, including six (6) High priority risks.

Aug 2021	Sept 2021	Oct 2021	Category	IV&V Observations
M	M	H	Project and Schedule Management	Activities across all workstreams are being delayed due a number of factors including resource constraints (**#27**), environment availability, lack of planning documents, and unexpected issues causing user stories to get deferred to future Sprints. Together, these create a risk (**#28**) that the current schedule is not feasible and go-live will be delayed. SSO understands the concerns and plans to reallocate experienced resources to the Project to get activities back on track, with a special emphasis on Employer Portal and Tax activities.
M	H	H	Requirements Management	The scoping activities for the Tax and EP workstreams remain behind schedule **(#12)** and were not able to meet previously adjusted deadlines, and therefore this area remains a High priority. EP development sprints continued but it is not clear how many user stories were deferred from those Sprints as a result of user stories not being ready, or how the Project will be able to accommodate those user stories in later iterations. The Project increased the number of Tax scoping sessions to three per week to get back on track last month, but those sessions have not been effective in helping the Project catch up. Additionally, a new risk **(#29)** was identified which indicates additional scope may be needed to account for Technical Debt and configuration activities which may extend the schedule.
M	M	H	Design and Development	Tax development did not start as planned this period due to lack of available developers on the SSO side (**#31**). Benefits Sprints 6 – 7 completed this period but stories continue to get deferred and no details have been shared on SSO testing or post sprint validation by DLIR. SSO continues to look at ways to improve Sprint reporting to include additional details which will be more beneficial once the associated testing can begin.

Executive Summary (cont'd)

Aug 2021	Sept 2021	Oct 2021	Category	IV&V Observations
M	H	H	Testing	DLIR's access to the test environment is inconsistent and has prevented meaningful testing and post sprint validation from occurring. There remains a backlog of tests to execute from Benefits Sprints 1 – 7 which will need to be completed in parallel to the test activities for upcoming Sprints 8 – 9 next month which raises the risk that the Benefits Testing schedule will not be met (**#32**). The quality of the Sprints delivered to date is also still unknown since demos and testing have not occurred (**#33**). These issues highlight the importance of completing the Test Management Plan **(#24)** which was expected by 9/15 and has now been delayed to 11/5. The Plan will be a critical asset to describe how testing will be conducted throughout the Project and what resources and preparation are needed.
M	M	M	Data Management	Data Conversion activities continued this month and data validation activities began which is a key step in determining the data quality and effectiveness of the conversion approach. The Project plans to create a dashboard to track conversion and validation activities against the expected total number of tables and data to be converted. This will help identify areas of focus and schedule adjustments that may be needed. The project also continues to draft the Data Migration Plan and expects to have a version available in October.
L	L	L	Security	The Project has identified additional funding opportunities from the USDOL to incorporate an identity verification and fraud prevention solution into the project and is exploring those options. During the September reporting period, demos were conducted by LexisNexis, TransUnion and ID.me to demonstrate each solution's capabilities, ease of use, and viability with integrating with the Project's solution and current State of Hawaii security infrastructure. .
L	L	L	Organizational Change Management	The Project continues to hold biweekly working sessions with DLIR stakeholders from all affected program areas which is useful to communicate status, share upcoming processes, and gain buy-in from staff. Staff remain engaged and active participants in these sessions.
L	L	L	Knowledge Transfer	Activities have not yet started but are planned in the project schedule and will be monitored.

Executive Summary

Open IV&V Findings by Category and Priority

IV&V Findings and Recommendations

H Project Schedule and Management

#	Key Findings	Criticality Rating
27	**New Risk – Vendor Resource Management Unable to Meet Scheduled Activities**: Vendor resource management has not been able to meet the Project's needs, with the limited availability of resources from SSO and Netacent having an impact on the project schedule. Resources are dealing with competing priorities which has caused delays in development activities for Tax and Employer Portal. For instance, during the October 2021 reporting period, a key resource for the Collections/ Overpayments module was replaced, as DLIR SMEs were concerned about the approach used for user story authoring activities, and meetings not being structured, causing significant delays in scoping activities.	H
28	**New Risk – Project May Not Meet the October 2022 Go-Live date Due to Delayed Activities and Increases in Project Scope:** The Original Go-Live date may not be feasible given the complex increases in project scope due to Employer Portal, Localization, and Identity Proofing. These each will require significant resources and time yet the schedule has not been re-baselined since the Project started. In addition, the Project has already faced delays across many aspects of the project including scoping, development, data conversion and testing activities for all workstreams. The STG environment continues to remain unstable, which has prevented post sprint validation activities from taking place. Currently, the Project is behind by seven (7) Sprints for Benefits Testing and five (5) Sprints for Employer Portal. As noted in risks **#12 and 29,** further delays in Tax and Employer Portal scoping and development activities will continue to create downstream delays, which may lead to a domino effect causing delays on future related activities and a strain on the project schedule.	H
7	**Increased Risk – Use of Multiple Schedule Tracking Locations May Lead to Confusion**: SSO is tracking project progress in DevOps instead of the Smartsheets tool identified in the Time Management Plan, which has made it difficult for Project leadership to understand project progress and schedule variance at any given point. • *10/31: Both DLIR and SSO PMs continue to make updates to the schedule on Smartsheets. During this reporting period, there was a disconnect between user stories accounted for in DevOps and in Smartsheets for the Benefits module.*	M

IV&V Findings and Recommendations

H Project Schedule and Management

#	Key Findings	Criticality Rating
13	**Lowered Risk – DLIR Resource Management Needs Clarity**: Resource needs for reviews and information gathering has been disjointed, often with a lack of lead time which has resulted in individuals not being available or prepared for meetings and reviews. There is a risk that downstream activities will take longer than expected or end up blocked because resources are not available. • *10/31: The risk priority has been lowered as DLIR SMEs are more prepared and participate more actively in the user story authoring meetings. As Testing and post sprint validation activities have not occurred as planned, IV&V will continue to monitor this risk as there are concerns that the DLIR SMEs may be more actively involved after testing activities begin. The Technical lead was not onboarded during the week of 10/11 as noted in the last reporting period, and is expected to join the Project in November.*	L
25	**Increased Risk – Regression Testing Not Accounted for in the Project Schedule**: The current Project Schedule does not have time built into it for regression test related activities. Regression testing will be an important mitigation to ensure current development does not impact previous development (see Risk #26), and activities to set up, configure, and manage regression testing may add time to the schedule. • *10/31: IV&V understands that the Project plans to conduct regression testing, and details will be included by the SSO team in the Test Management Plan. However, as noted in the last reporting period, regression testing has not been accounted for in the Project Schedule on Smartsheets.*	L
8	**Closed Risk – Vendor Resource Assignments are Unclear**: The project schedule has tasks that are not assigned to individual resources, which could lead to misallocation of resources and potential project delays. • *10/31: This risk is being closed as issues with vendor resource management are being tracked in risk # 30.*	L

IV&V Findings and Recommendations

H Project Schedule and Management

Recommendations	Status
• Losing key resources during the critical stages of the project can be detrimental to the completion and success of project activities. IV&V understands that additional developers from SSO will be onboarded to assist with Tax and Employer Portal development activities, as well as a key technical resource from the Data Conversion team will be leading the Collections/ Overpayments meetings. The Project should finalize details on resource allocation and to ensure activities in other modules of the Project (such as Data Conversion) are not impacted. The Project should also ensure it is effectively conducting Knowledge Transfer sessions with new resources who will be stepping in.	In Progress
• The Project should ensure there is a mitigation plan in place to meet the revised timelines for all delayed activities in the schedule, as the Project is now expected to consume some of the contingency in the future, causing a strain on the schedule. The IV&V team recommends exploring alternative options to re-baseline the Go-Live date which takes into account the expanded scope, and appropriately adjusts the schedule and budget based on DLIR's priorities. It has been observed that a significant increase in seasonal claims are usually observed during the November – March time period and going live during this window should be avoided if possible.	In Progress
• The Project should ensure the schedule in Smartsheets accounts for all user stories that require development and is consistent to the data that is shown in DevOps, including the state of each activity and whether it is complete or not.	In Progress
• The Project should consider adding slack to the Project Schedule to account for regression test-related activities. Regression tests can help validate the quality of the application, provide a feedback cycle for newly developed features, and identify any adverse effects and mitigate them at the earliest.	Not Started

IV&V Findings and Recommendations

H Project Schedule and Management

Recommendations	Status
• The Project should actively monitor activities typically conducted by the technical lead, who was offboarded during the September reporting period, to ensure no bottlenecks start to form and there are no impacts to future activities. IV&V understands that the DLIR Project Management team is utilizing a RACI chart to ensure effective communication and required information is shared ahead of time. IV&V will continue to monitor this risk.	Completed
• Resource assignments continue to be missing for Train the Trainer, Deployment Preparation, Go-Live, Stabilization, Maintenance & Operations. IV&V will continue to monitor the Project Schedule to ensure resources are assigned. The Project should assign individual resources to all tasks to ensure there is clarity of ownership.	Closed

IV&V Findings and Recommendations

H Requirements Management

#	Key Findings	Criticality Rating
12	**Risk – Delay in Employer Portal and Tax Scoping Activities May Impact Development Schedule:** The Tax and Employer Portal modules are large scope activities that have not been incorporated into the Project Schedule. The IV&V team understands that the initial plan was for activities to occur in parallel for both Benefits and Tax modules. Associated sprint activities were planned to start in July 2021 for EP but have been pushed out to August 2021, and Tax will start in October 2021. There is a risk that there is insufficient time to complete these activities prior to go-live. • *10/31: The risk remains High as the Project did not meet the revised timelines identified in the last reporting period and the projected new finish dates have been pushed out to late October and early November for user story authoring activities. The following scoping activities for Tax were pushed out from the initial timeline of 10/22 identified in the Project schedule on Smartsheets: New Employer registration, Acquisitions, Status Determination, Receipt Entry, Report Filing, Wages, Collections, Create Assignment without Emp ID. In addition, the Project also did not meet the target dates for the following Employer Portal scoping activities: Employer portal Login, Employer Portal external links, Employer Portal Account Inquiry and Employer Portal Forms. There is a risk that the new dates identified in the schedule will not also not be met, due to the risk associated with Tax DevOps sessions for user story authoring also not being very effective. During this reporting period, Tax DevOps sessions were increased to three times a week. However, there is a concern associated with the sessions not being effective, as there continues to be a disconnect between Netacent and SMEs from DLIR on requirements gathering, which has contributed to delays in scoping activities and eventually will impact development.*	H

IV&V Findings and Recommendations

H Requirements Management

#	Key Findings	Criticality Rating
29	**New Risk – Additional Scope for Technical Debt and Configuration User Stories May Impact Schedule:** The Project has not accounted for additional scoping activities identified as part of the Benefits, Tax, and Employer Portal modules. As part of Benefits, for instance, there are user stories related to technical debt and configuration that have not been included in the schedule on Smartsheets but will require development activities. This additional effort will be needed for the Project to effectively assign resources and to ensure future plans for completion are accurate. Additionally, there may be an overlap between user stories in Tax and Employer Portal that needs to be resolved to determine the true level of effort needed for each workstream. There is a concern that if these user stories are not double-counted, there would be additional user stories that need to be scoped, which would require the Project to plan for resources. This additional scope across the three modules should be planned and accounted for in the schedule to prevent potential delays in downstream activities.	H
30	**New Risk – Lack of Requirements Traceability Matrix May Lead to Missed Activities:** The Project should create and update a cohesive Requirements Traceability Matrix (RTM) that provides clarity on how user stories progress from scoping into sprint development and eventually into testing. The RTM can help effectively identify any missing requirements and additional effort that needs to be accounted for in the schedule.	L

IV&V Findings and Recommendations

H Requirements Management

Recommendations	Status
• The schedule on Smartsheets should be updated to reflect the delays and revised timelines for scoping based on discussions during the Tax DevOps sessions. The Project should complete all scoping activities for Tax and Employer Portal to meet the revised timelines identified in the schedule. The Project should have dependencies built in the schedule, where development sprints are tied to the scoping of user stories.	In Progress
• The project should align on a plan to ensure the Tax DevOps sessions are more efficient. It is recommended that Netacent share an agenda prior to the meeting and execute to it, to ensure there is sufficient lead time for DLIR SMEs to be prepared for meetings. The Project should also follow a documented process to share updates on progress, action items and roadblocks, that can be revisited during the meetings as required. It is also recommended that the Project re-evaluate the schedule in two weeks to validate the effectiveness of the Tax DevOps sessions and identify additional corrective measures if needed, to ensure prevent further delays to Tax and Employer Portal development activities.	In Progress
• The additional scope for technical debt and configuration activities should be planned and accounted for in the schedule to prevent potential delays in downstream activities.	In Progress
• The Requirements Traceability Matrix (RTM) should be created and consistently updated during the course of the Project and reflect changes based on scoping, development and testing activities. SSO may have an RTM solution in place already for EP which can be extended to the other workstreams.	Not Started

IV&V Findings and Recommendations

H Design and Development

#	Key Findings	Criticality Rating
31	New Risk – **Delay in Tax Development Activities May Impact Schedule:** Tax development activities have not progressed as planned due to the limited availability of vendor developers as they continue to deal with competing priorities. According to the revised timelines identified in the previous reporting period, only Sprint 0 for Tax has been completed. Subsequent sprints are behind schedule and will not meet the planned dates. The Project should align on a plan to ensure resources are available for activities to take place in a timely manner. As noted in the previous reporting period and in **Risk #29**, the Project should also determine if there is an overlap between user stories in Tax and Employer Portal, as this could lead to additional scoping and development activities that need to be accounted and planned for in the schedule.	H
21	**Risk – Limited clarity on user stories completed in each Sprint:** The progress of user stories completed in each sprint is not clearly discussed during PM meetings and reports, and it is uncertain which stories were completed vs deferred in a given sprint. For example, during the sprint planning sessions on 07/27, there were discussions around potentially moving two user stories from Sprint 1 to Sprint 2, but it was not clear on which stories or what their complexity was. • *10/31: Sprints 1-7 for (out of a total of 26) for Benefits, and Sprints 1-5 (out of a total of 8) for Employer Portal have been completed, but testing at the end of each sprint has not taken place. There is a concern associated with user stories in subsequent sprints being dependent on the completion of the ones that have been deferred, which could cause further delays in the project schedule.*	M

IV&V Findings and Recommendations

H Design and Development

Recommendations	Status
• The Project should build dependencies into the schedule, where development sprints are tied to the scoping of user stories. The Project should also align on a plan to ensure resources from SSO are available for Tax development activities to take place to prevent further delays to the schedule. This may include adding new resources to the team or reallocating senior resources from other efforts who can help the Project catch up to the planned schedule and velocity of user story development.	In Progress
• As suggested in the previous reporting period, the Project should follow a documented process to share the status and updates on user stories that have been completed and deferred to future sprints, and the complexity of those user stories. As testing activities begin, it is recommended that SSO also share details on pass/fail rate, number of defects generated, and mitigation strategies with a revised due date. The Project should track the progress of user stories in one location, and a periodic snapshot with updates after every sprint can help provide better visibility to the management team. This can also help the Project monitor and track the progress of user stories, and ensure future plans are realistic. It can also help avoid a common trap where complex user stories are deferred to the final sprints and the Project is not able to maintain the same user story completion velocity which could lead to downstream delays. There is also a need for the Project to account for all user stories that require development, in the schedule on Smartsheets.	In Progress

IV&V Findings and Recommendations

H Testing

#	Key Findings	Criticality Rating
32	New Risk – **Benefits Testing Schedule May not be Met**: DLIR Basic Functionality Testing for Benefits was initially scheduled to start on 09/22, and while a revised target date of 11/05 has now been identified for Testing to start, there are additional concerns with the data in the STG environment not being ready, which has prevented testing from taking place. The Project is currently behind by seven (7) Sprints for Benefits Testing and five (5) Sprints for Employer Portal. The Project should align on a plan for DLIR SMEs to catch up on testing activities. Any further delays in testing will continue to create downstream delays, that will eventually contribute to the Go-Live date getting pushed out.	H
24	**Risk – Lack of a Test Management Plan May Lead to Missed Activities and Miscommunication**: There is limited clarity on the testing approach and process, including how it is incorporated into sprint development, what types of testing will be conducted at which stages of the project (e.g., SIT, UAT, Performance, ADA compliance, Security, etc.), what tools will be used, what data will be required, and who has responsibility for test script creation and execution. Without these details, it will be difficult for the Project to appropriately prepare resources, and critical test elements may be overlooked, resulting in an unstable system. • *10/31: While the Test Plan has been updated, the risk remains High as the plan continues to be missing key information and did not meet the revised target date of 09/15. SSO should update the plan to include details on approach and strategy for testing, details on testing phases, test data and scenarios, roles and responsibilities for post sprint validation across all workstreams, as well as defect tracking and prioritization. There is a risk that downstream testing activities will get delayed or end up blocked if resources are not prepared.*	H
33	New Risk – **Limited Clarity on the Quality of Code May Lead to a High Volume of Defects and Rework:** Sprints 1-7 (out of a total of 26) for Benefits, and Sprints 1-5 (out of a total of 8) for Employer Portal have been completed, but testing at the end of each sprint has not taken place. There is therefore limited clarity on the quality of code as post sprint validation by DLIR SMEs has not taken place for any of the 12 Sprints across Benefits and Employer Portal. Testing at the end of each sprint is integral to the agile process to provide an ongoing feedback loop into development, and to determine the success rate for each of the sprints.	H

IV&V Findings and Recommendations

H Testing

#	Key Findings	Criticality Rating
15	**Lowered Risk – Development Environment Lacks Stability for Benefits**: The Benefits development environment has faced availability issues preventing testing from occurring. While the issue does not block development, screen changes cannot be shown to DLIR and testing activities may be delayed. • *10/31: The STG environment continues to remain unstable with intermittent outages, although DLIR has received access and therefore this risk priority has been lowered to Medium. This instability can be attributed to issues with the VPN site-to-site connection as well as the limited access to P81 licenses by DLIR SMEs to access the environment. SSO should expedite the process for DLIR SMEs to receive access as well as to ensure the STG environment is continually up and running for testing to take place.*	M
26	**Risk – Lack of Regression Testing could Lead to Defects in Previously Completed Code**: The Project is not conducting regression testing which could lead to code in the current sprint breaking code developed in previous sprints without the Project's knowledge. • *10/31: The Project understands the effectiveness of Regression Testing, and the need to automate the process. While SSO and Netacent have aligned on a strategy to conduct regression testing, the process still needs to be finalized. IV&V understands that details, including approach will be included in the Test Management Plan.*	L
34	**Positive Finding – Base Data Set Created for Testing:** The Project is developing a standard base, or "golden", data set that includes base data and configurations which can be used each time the testing environment is refreshed. This will be useful for DLIR SMEs during testing, as it will save time and effort in configuring test scripts.	N/A

IV&V Findings and Recommendations

H Testing

Recommendations	Status
• The Project should expedite the environment access and data refresh process to ensure data validation and testing can occur, and for any bugs encountered in the process to be reported and resolved in a timely manner. As Testing activities get pushed out further, there is a risk that the revised dates identified for the completion of Benefits Testing will not be met, as the Project is currently behind by 7 Sprints for Benefits, which could cause further delays in testing and other activities in the project schedule.	In Progress
• The Project should create a comprehensive Test Management Plan which provides clarity on the process for testing across all testing phases.	In Progress
• The Project should resolve any configurations, permissions and/ data related issues in the STG environment for Testing to take place. Testing activities should begin immediately so that post sprint validation by DLIR SMEs can occur, and for code validation to take place.	In Progress
• The Project should begin regression testing and look to automate those tests as they are refined. This will help maintain code quality and functionality without putting a resource strain on testers.	Not Started
• The Project should ensure the golden data set is available and shared as soon as possible.	In progress

IV&V Findings and Recommendations

M Data Management

#	Key Findings	Criticality Rating
6	**Risk – Lack of a Data Conversion and Migration Strategy**: There is no Data Migration Plan, leading to confusion about which information and resources are needed at any given time. This could cause activities to be delayed and important information to be overlooked, especially if the right subject matter experts (both technical and business) are not engaged at the right time. • *10/31: The Project has converted 61 of the 233 tables identified for conversion. Sprints 1-5 for Data Conversion have been completed, however, there is uncertainty around which tables were completed vs deferred in a given sprint. Data conversion activities are behind schedule, and there isn't sufficient data available to test, which has prevented screen-to-screen validation activities from taking place. In addition, test data in the STG environment was expected to be available from 11/05 and is currently not available. The Data Migration plan was not shared during the October reporting period, and a revised date for completion has not been identified.*	M
35	**New Risk – Limited Clarity on Data Conversion Runs May Lead to Misunderstanding and Rework**: Data Conversion activities are currently in progress. However, there is limited clarity on the details for data that has been converted, including information on table counts, accuracy of conversion such as control totals and ensuring data reconciliation between the mainframe system and the new database, and any duplicated or skipped record counts. These details should be provided to understand the quality of conversion, and for errors to be minimized during the migration process.	M

IV&V Findings and Recommendations

M Data Management

Recommendations	Status
• Any errors identified during the Data Conversion process should be captured in a log and the Project should ensure there is a process in place to minimize them. In addition to screen-to-screen validation, there should be other means of testing identified and planned for to ensure the Data Migration process is successful. As Conversion activities take place, the Project should share an update to show the burndown against the total progress. This can help the Project track the progress across Sprints, and ensure future plans are realistic.	In Progress
• As a best practice, the IV&V team recommends that the Data Migration Plan includes the following information: Data Migration objectives and scope, Data Conversion methodology, Data extraction, Data Profiling, Data cleansing, Data security, and the testing approach for Data Conversion.	In Progress
• It is recommended that as validation activities progress, SSO also share details on tables converted, including table counts, control totals, conversion accuracy and skipped record counts. Data accuracy is critical to maintain high quality which includes ensuring data consistency, lack of duplicate/incorrect data records in the new database and data currency. The Project should also track the progress of data conversion in one location, and a periodic snapshot with updates can help provide better visibility to the project management team to ensure future plans are realistic.	In Progress

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

Meetings attended during the reporting period:	
1. M/W/F Project Management meetings	7. TOP FTI Benefits and Tax technology requirements to move to Cloud – 10/04
2. Data Conversion Scrum meetings	8. DLIR – Benefits – User story review and Acceptance – 10/05
3. Working Group meetings	9. Tax and EP Authoring – 10/06
4. Tax DevOps meetings	10. Working session – SIDES Data Connectivity – 10/08
5. HUI Mod Notifications meetings	11. IV&V Report Review meeting – 10/13
6. Sprint Review meetings	12. ESC meeting – 10/21
	13. Project Status w/DLIR and SSO – 10/28

Appendix B – IV&V Standard Inputs

Artifacts reviewed during the reporting period:	
1. Test Management Plan	
2. SSO Weekly Status Reports	

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

- **Attends the project meetings**
- **Reviews the project documentation**
- **Utilizes Eclipse IV&V® Base Standards and Checklists**

PCG Eclipse IVV Checklists

Appendix C – IV&V Details

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

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

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

Solutions that Matter