



# Hawaii BHA Integrated Case Management System Project

*Final IV&V Report for the period of  
July 21 - August 31, 2018*

# Overview

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- Executive Summary
- IV&V Activities
- IV&V Findings and Recommendations
- Appendices
  - A – Findings and Recommendations Log
  - B – Inputs

# Executive Summary













Overall Project Health:



The overall project health remains Yellow, a caution rating, due to the untimely completion of Iteration 0 deliverables, unassigned dedicated BHA Leads for Implementation Phase activities, the time remaining to remediate errors in the data migration files, pending migration to Government cloud instance, and delayed OCM approach. Five findings were closed during this reporting period and no new findings were opened. Thus far, the project remains on schedule though many tasks are beginning to fall behind and the contingency time built into the schedule has been consumed by the delay in the Portal work.

Jun 18	Jul 18	Aug 18	Process Areas	IV&V Observations	Overall Health
L	M	M	Project Management	Though three findings have been closed this period, this process area continues to be rated Yellow since scope for Phase 1 and the remaining Iterations continue to shift; the IAPD for Phase 2 has not yet been submitted to CMS; and BHA lead roles are not yet assigned to new resources who have the capacity to perform the full breadth of responsibilities.	Y
L	L	L	Requirements Management	Potential requirement gaps have been identified as part of DOH reviewing test scripts and analyzing requirements for potential user story swaps in Iterations 4 and 5. Therefore, IV&V has initiated a Part 2 requirements traceability evaluation to verify the completeness of requirements across Iterations.	G
M	M	M	Design and Development	DOH provided feedback to the SI regarding the latest draft of the Architecture Blueprint and the SI is currently updating the document for resubmission. Meanwhile, Iterations 2 and 3 have been finalized and Iteration 4 development approaches completion with demonstrations scheduled in September. There continues to be risk of misalignment and potential rework since development continues in the absence these guiding documents. In addition, recent changes to user stories have created a backlog of design questions that must be addressed in order to finalize the user stories for Iterations 4 and 5.	Y

# Executive Summary

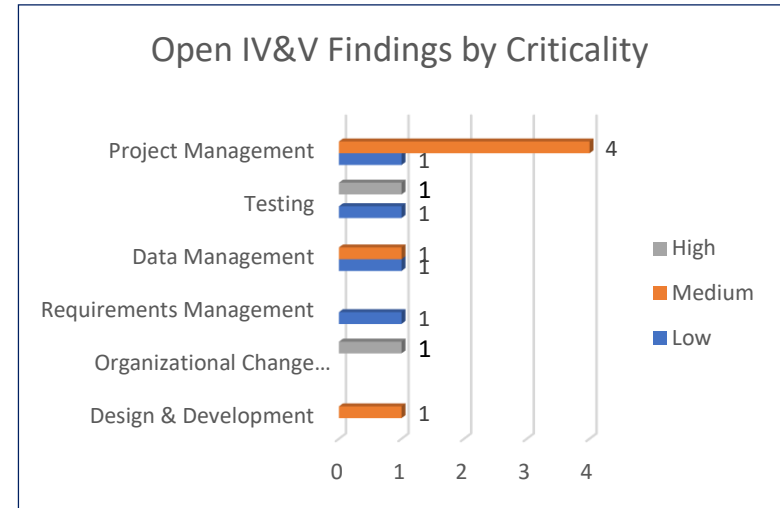
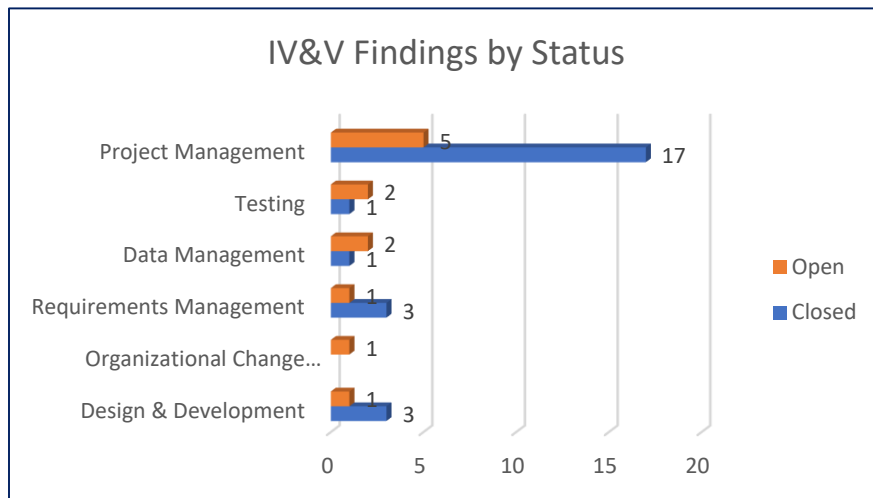
Jun 18	Jul 18	Aug 18	Process Areas	IV&V Observations	Overall Health
			Testing	The Government Cloud instance has been provisioned by Microsoft and the project is working through the migration from the SI's commercial instance to the Government instance. This category remains at risk until the project completes the migration and is able to execute the SharePoint integration testing activities.	
			Data Management	While the project has made progress with resolving issues associated with the data migration files, new files have been identified and several are still pending finalization. The time remaining to fix data errors identified in the data migration files may not be sufficient and could impact downstream testing or other project activities. In addition, DOH provided feedback to the SI regarding the latest draft of the Data Management Plan; the SI is currently updating the plan for resubmission.	
			Organizational Change Management	The OCM Plan is not yet finalized and early planning for the Implementation Phase indicates a large volume of pending decisions surrounding training and cutover, both of which impact the OCM activities for DOH. Without a plan that clarifies roles, responsibilities, and scope, DOH is unable to validate that the OCM activities can be aligned with the project's schedule or completed in a timely manner. IV&V has increased the rating of this category to High due to latency of the OCM plan and the growing number of planning and execution activities in this area juxtaposed with the lack of resources and approved planning documentation to facilitate them.	

# Executive Summary

As of this reporting period, IV&V has 12 open findings: there are 6 Risks (1 high, 2 medium and 3 low) and 6 Issues (1 high, 4 medium and 1 low).

IV&V closed 5 (1 high Issue and 4 low Risks) findings.

To date, IV&V has identified 37 findings in total: 5 issues, 26 risks, and 6 observations) on the Hawaii BHA Integrated Case Management System Project.



See Appendix C for trend data related to IV&V's monthly ratings for findings and overall project health.

# IV&V Findings and Recommendations

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## Process Areas Reviewed

Throughout this project, IV&V will verify and validate activities performed in the following process areas:

- Vendor Project Management
- Requirements Management
- Design and Development
- Testing
- Data Management
- Organizational Change Management

# IV&V Findings and Recommendations

## Project Management

#	Key Findings	Criticality Rating
2	<b>Long sprint / iteration cycles:</b> The project has mitigated the longer sprint cycle through various activities and meetings which have provided DOH stakeholders more frequent information regarding how requirements will be met. These activities have resulted in much needed clarification regarding the system's functionality and constraints. <b>IV&amp;V has closed this risk.</b>	
5	<b>Late-game analysis of requirements awaiting details from external sources:</b> <i>[Lead Entity: Vendor]</i> Meetings and discussions continue (e.g. with MedQuest and provider agencies) in order to address pending decisions on interfaces. However, this finding <b>transitioned from a risk to an issue</b> and the <b>rating for has increased to Medium</b> since the SI had reported that the remaining Iterations are at full user story capacity. Any changes to Iteration 4 or 5 user stories require deferral or removal of currently planned requirements for Phase 1.	M
16	<b>Unclear review and approval process for project deliverables:</b> <i>[Lead Entity: Vendor]</i> There are still three outstanding deliverables from Iteration 0: Data Management Plan, System Security Plan, and Architecture Blueprint. It is unclear what steps are remaining to complete these deliverables or what, if any, remediation will be required once they are finalized. IV&V continues to monitor the deliverable management process throughout Iteration 4 but lowers the rating of this risk to Low in recognition of observed process improvements.	L
19	<b>Access to enhanced federal funding may impact the project budget and/or scope:</b> <i>[Lead Entity: State]</i> DOH submitted the IAPD to DHS for internal review and has received minimal comments. DOH met with DHS representatives the last week of August in order to finalize the IAPD for submittal to CMS.	M

# IV&V Findings and Recommendations

## Vendor Project Management (cont'd)

#	Key Findings	Criticality Rating
30	<b>Contingency Plan for Portal development resources not determined:</b> The SI secured the needed Portal resources from Global Logic and conducted knowledge transfer throughout August to quickly get these resources up to speed and working on Iteration 4 Portal user stories. <b>IV&amp;V has closed this issue</b> since the contingency for Portal development has been fully deployed, DOH has approved the migration of all Portal stories to Iterations 4 and 5, and the project is back on track.	
28	<b>Contractual DED Process not consistently being utilized by SI:</b> Iteration DEDs and deliverables are now inclusive of acceptance criteria and are being created, reviewed, and approved on a flow basis without any major constraint. <b>IV&amp;V has closed this risk.</b>	
33	<b>Execution of project activities occurring prior to approval of respective plans:</b> <i>[Lead Entity: Vendor]</i> IV&V continues to monitor for execution occurring before respective planning efforts have completed, notably in the areas of data migration, training, implementation, and OCM. For example, new data migration files were identified during the period and have been added to the project's scope though the Data Management Plan is not yet finalized.	M
34	<b>Unassigned BHA Lead resources may slow project progress:</b> <i>[Lead Entity: State]</i> The Implementation Phase, which includes Testing, OCM, and Cutover activities, typically requires heavy state staff participation. Currently, the BHA team does not have dedicated state Leads assigned to manage and guide the successful and timely completion of state-owned project tasks in these areas. IV&V has <b>increased the rating to Medium</b> since it has been observed that current assigned Leads are significantly over-allocated and challenged with juggling their current responsibilities with new ones associated with Implementation Phase activities as well as Phase 2 planning.	M



# IV&V Findings and Recommendations

## Vendor Project Management (cont'd)

Recommendations	Progress
<ul style="list-style-type: none"><li>• SI to clarify acceptance criteria for each Iteration deliverable in the Iteration DED document.</li></ul>	Completed
<ul style="list-style-type: none"><li>• BHA and SI to work together to confirm the list of deliverables to be produced for the project.</li></ul>	Not started
<ul style="list-style-type: none"><li>• BHA to work closely with DHS to pursue available funding options.</li></ul>	In process
<ul style="list-style-type: none"><li>• Develop and document a contingency plan for development the Portal functionality.</li></ul>	Completed
<ul style="list-style-type: none"><li>• Prioritize and expedite the completion and approval of 'planning' related tasks and deliverables as quickly as possible</li></ul>	In process
<ul style="list-style-type: none"><li>• Identify and onboard Testing, OCM, and Cutover BHA Leads as quickly as possible</li></ul>	Not started
<ul style="list-style-type: none"><li>• Evaluate user stories (requirements) being deferred to Phase 2 and analyze the impact of not having these features in place prior to go live</li></ul>	In process
<ul style="list-style-type: none"><li>• Evaluate all the user stories (requirements) deferred beyond Iteration 5 (collectively) to analyze the impact</li></ul>	In process
<ul style="list-style-type: none"><li>• BHA to initiate Transition Planning activities to identify DOH's support requirements and develop a plan for securing and training help desk staff prior to go live</li></ul>	In process
<ul style="list-style-type: none"><li>• BHA to work within DOH to identify additional resources who can either work on the project or alleviate key project resources from their day-to-day (non-project) responsibilities so they can be fully allocated to the project until post implementation; alternatively, consider hiring temporary staff</li></ul>	In process

# IV&V Findings and Recommendations

## Requirements Management

#	Key Findings	Criticality Rating
20	<b>TFS governance process:</b> TFS (Microsoft's Team Foundation Server) is the Project's central repository database of all requirements, user stories, development tasks, test cases, bugs, and source code. The concerns surrounding the completeness of the queries developed to analyze the data have been addressed. <b>IV&amp;V closed this risk.</b>	
36	<b>Many-to-one mapping of user stories to requirements increases the complexity of validation activities:</b> Multiple user stories map to a single requirements; a single user story maps to multiple requirements and have multiple test scripts; and requirements are scheduled for delivery across Iterations. This complex mapping constrains DOH's ability to verify the accuracy of test scripts or the completeness of requirements as they perform day-to-day validation activities. Inaccurate mapping may result in incomplete test scripts or gaps in requirements.	L

Recommendations	Progress
<ul style="list-style-type: none"><li>DOH work with IV&amp;V to conduct a detailed assessment of the completeness of the mapping of user stories to requirements</li></ul>	In process

# IV&V Findings and Recommendations



## Design and Development

#	Key Findings	Criticality Rating
12	<b>Use of accelerator:</b> The SI has provided DOH with the documentation that describes the level of customization and level of effort of making changes using the accelerator. <b>IV&amp;V has closed this risk.</b>	
21	<b>Architecture Blueprint deficiencies:</b> DOH has provided feedback to the SI regarding the latest draft of the Architecture Blueprint; the SI is currently updating the document for resubmission. Planning for Phase 2, which includes interfaces, new resources, and potentially a revised approach, is underway and until the Blueprint is finalized, it is unclear if Phase 2 planning activities are appropriately aligned with the Blueprint.	M

Recommendations	Progress
<ul style="list-style-type: none"><li>BHA to ensure SI design decisions are based on what's best suited for BHA and not on existing (base) accelerator functionality.</li></ul>	In process
<ul style="list-style-type: none"><li>SI to document sufficient design details in the architectural blueprint, and that the content should focus on what the SI will do as opposed to what the products/platform can do.</li></ul>	In process
<ul style="list-style-type: none"><li>SI to analyze the completed Iteration 0 Plans (Architecture Blueprint, System Security, and Data Management) and document the gap between the approved deliverables and the project's artifacts developed to date</li></ul>	Not started

# IV&V Findings and Recommendations

## Testing

#	Key Findings	Criticality Rating
35	<b>Inability to move to Government Cloud may impact the execution and quality of SharePoint Integration Testing:</b> The Government instance has been provisioned by Microsoft and the project is now able to migrate from the SI's commercial instance to the Government instance. The current approach is to align with the end of Iteration 4, to avoid migrating an incomplete solution mid way through an iteration. However, this risk became an issue in early August when UAT began and required work-around processes in lieu of the Government instance being available.	
37	<b>Level of detail for test scripts in user stories may not fully address the nature of the mapped requirement:</b> Test cases mapped to user stories can lack the level of test script data (number of steps) necessary to fully test the whole requirement. Though, test cases are reviewed and test scripts are updated on a regular basis, it is difficult to discern whether all the test scripts across test cases and user stories cover the full scope of the requirement. IV&V has initiated a Part 2 requirements traceability evaluation which includes a cursory review of test scripts.	

Recommendations	Progress
<ul style="list-style-type: none"> <li>SI to include test cases, scripts, and expected and actual results associated with each Iteration Test Plan for DOH review and approval</li> </ul>	In process
<ul style="list-style-type: none"> <li>DOH work with SI to begin planning the implementation of the contingency for Integration Testing, if the Government Cloud instance is not ready in time)</li> </ul>	In process
<ul style="list-style-type: none"> <li>DOH work with IV&amp;V to conduct a detailed assessment of the completeness of the test scripts, across user stories, to fully address the mapped requirements</li> </ul>	In process
<ul style="list-style-type: none"> <li>DOH to analyze the testing results from UAT Cycle 1 to determine if any testing activities was impacted as a result of the alternative UAT approach due to delay in Microsoft's migration to Government cloud.</li> </ul>	Not started

# IV&V Findings and Recommendations

## Data Management

#	Key Findings	Criticality Rating
31	<b>Errors in the data migration files may impact the overall implementation schedule:</b> While the project has made progress with resolving issues associated with the extracted data migration files, new files have been identified and several are still pending finalization. If the data migration files or data are not formatted correctly, they will not process and migrate the data. Errors in the data files may delay testing and implementation if additional time is required to resolve them.	M
32	<b>No Finalized Data Management Plan to guide downstream activities:</b> DOH provided feedback to the SI regarding the latest draft of the Data Management Plan; the SI is currently updating the document for resubmission. In the absence of completed data management and control procedures, there may be ambiguity for project activities involving data. A Data Management Plan clarifies how data will/should be managed and controlled across environments.	L

Recommendations	Progress
<ul style="list-style-type: none"> <li>Form a dedicated task force with both DOH and RSM resources to meet daily and work on data migration tasks until the effort is back on track.</li> </ul>	In process
<ul style="list-style-type: none"> <li>Expedite the completion of the Data Management Plan</li> </ul>	In process

# IV&V Findings and Recommendations

## Organizational Change Management

#	Key Findings	Criticality Rating
7	<b>Minimal attention to User Adoption (buy-in):</b> The OCM Plan is not yet been finalized and early planning for the Implementation Phase indicates a large volume of pending decisions surrounding training and cutover, both of which impact the OCM activities for DOH. A documented OCM Plan serves to alleviate ambiguity regarding roles, task ownership, and activity timelines. OCM tasks are shared between DOH and RSM and include more than training. The OCM plan should be tactical and inclusive of all tasks so that a work plan can be created with resources assigned to activities. In the absence of a detailed plan, DOH is unable to validate that the OCM activities can be aligned with the project's schedule or completed in the allotted timeframe by the designated resources. IV&V plans to review the draft OCM plan when it becomes available from DOH.	H

Recommendations	Progress
• Request the SI support DOH in the development of a comprehensive OCM strategy.	In process
• DOH to document and finalize the state's comprehensive approach for OCM as soon as possible	In process
• DOH to begin the detailed planning for OCM activities such as delivering Provider Training	In process

# Appendix A

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

- See Findings and Recommendations Log (provided under separate cover)
- Project Health Rating Definitions




- G**
  - The project is under control and the current scope can be delivered within the current schedule.
  - The project's risks and issues have been identified, and mitigation activities are effective. The overall impact of risk and issues is minimal.
  - The project is proceeding according to plan (< 30 days late).

- Y**
  - The project is under control but also actively addressing resource, schedule or scope challenges that have arisen. There is a clear plan to get back on track.
  - The project's risk and/or issues have been identified, and further mitigation is required to facilitate forward progress. The known impact of potential risks and known issues are likely to jeopardize the project.
  - Schedule issues are emerging (> 30 days but < 60 days late).
  - Project Leadership attention is required to ensure the project is under control.

- R**
  - The project is not under control as there are serious problems with resources, schedule, or scope. A plan to get back on track is needed.
  - The project's risks and issues pose significant challenges and require immediate mitigation and/or escalation. The project's ability to complete critical tasks and/or meet the project's objectives is compromised and is preventing the project from progressing forward.
  - Significant schedule issues exist (> 60 days late). Milestone and task completion dates will need to be re-planned.
  - Executive management and/or project sponsorship attention is required to bring the project under control.

# Appendix A (cont'd.)

## Criticality Ratings

Criticality Rating	Definition
 H	A high rating is assigned if there is a possibility of substantial impact to product quality, scope, cost, or schedule. A major disruption is likely and the consequences would be unacceptable. A different approach is required. Mitigation strategies should be evaluated and acted upon immediately.
 M	A medium rating is assigned if there is a possibility of moderate impact to product quality, scope, cost, or schedule. Some disruption is likely and a different approach may be required. Mitigation strategies should be implemented as soon as feasible.
 L	A low rating is assigned if there is a possibility of slight impact to product quality, scope, cost, or schedule. Minimal disruption is likely and some oversight is most likely needed to ensure that the risk remains low. Mitigation strategies should be considered for implementation when possible.



# Appendix B: Inputs

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

## Meetings attended during the reporting period:

1. Weekly SI project status meetings (7/21/18 – 8/31/18)
2. BHA ITS Weekly Status Meeting (selected)
3. Weekly Data Migration Meeting (selected)
4. Daily Scrum meetings (selected)
5. Weekly Meeting to address targeted questions (selected)
6. Weekly BHA IT Schedule Meeting (selected)
7. Weekly IV&V Deliverable Reviews meeting
8. Weekly Standing IV&V Report Review meeting
9. Monthly BHA IV&V PCG-RSM Report Review meeting
10. BHA IT Solution DDD Iteration 3 Demo (7/31/18)
11. DOH BHA - CAMHD Case Management Solution Demo - Iteration 3 (7/31/18)
12. DOH BHA IT Solution Project - Steering Committee (8/14/18)

## Artifacts reviewed during the reporting period:

1. Iteration 3 DED
2. Iterations 3 and 4 Plan
3. Iterations 3 and 4 Test Plan
4. Iteration 3 TFS Backlog Report
5. Iteration 3 Defect Log
6. Iteration 3 Unit Test Results
7. Iteration 3 Review
8. Daily Scrum Notes (selected)
9. Data Management Meeting Notes (selected)
10. SI Project Schedule (ongoing)
11. RSM Weekly Status Reports (ongoing)

## Eclipse IV&V® Base Standards and Checklists



Eclipse IV&V  
Standards

# Appendix C

## Trend Data

Trend: Overall Project Health																	
Process Area	2018												2019				
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
<b>Overall Project Health</b>				G	Y	G	Y	Y									
Project Management	Y	Y	G	G	Y	G	Y	Y									
Requirements Management	Y	G	G	G	Y	G	G	G									
Design and Development	Y	Y	G	G	Y	Y	Y	Y									
Testing					G	G	Y	Y									
Data Management					G	G	Y	Y									
Organization Change Management	Y	Y	Y	Y	Y	Y	Y	R									
<b>Total Open Findings</b>	<b>18</b>	<b>17</b>	<b>19</b>	<b>17</b>	<b>17</b>	<b>15</b>	<b>17</b>	<b>12</b>									
Issue - high							1										
Issue - medium				1	1	2	4	5									
Issue - low								1									
Risk - high								1									
Risk - medium	10	4	5	9	3	1	3	1									
Risk - low	6	10	10	3	10	11	9	4									
Observations - high																	
Observations - medium	2	1	1	2	1	1											
Observations - low		2	3	2	2												



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