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#### OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

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July 10, 2018

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

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

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

Pursuant to HRS section 27-43.6, which requires the Chief Information Officer to submit applicable independent verification and validation reports to the Legislature within ten days of receiving the report, please find attached the report the Office of Enterprise Technology Services received for the State of Hawaii Department of Health Hawaii BHA Integrated Case Management System Project Independent Verification and Validation (IV&V).

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

Sincerely,

TODD NACAPUY Chief Information Officer State of Hawai'i

Attachment (2)



## Hawaii BHA Integrated Case Management System Project

Final IV&V Report for the period of May 26 - June 22, 2018



#### Overview

- 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 has reduced from caution to a good criticality rating due to successful mitigation of risk related to the deliverable expectation document (DED) process for future Iterations and the verification of requirements traceability of requirements to users in TFS. Two findings were closed during this reporting period and no new findings were opened. Thus far, the project remains on schedule for completion.

Apr 18	May 18	Jun 18	Process Areas	IV&V Observations	Overall Health
L	M	L	Vendor Project Management	Various potential impacts on the project timeline (e.g., deliverable reviews, resource availability, process improvements) have been cited in this process area. Several of the findings that IV&V is monitoring relate to ensuring that system functionality will meet the DOH's needs. See pages 7 – 8 for more details on IV&V findings in this area.	G
L	M	L	Requirements Management	TFS governance has not been thoroughly established, which can lead to inadequate requirements management. Requirements elaboration, including the formalization of agreed-upon scope changes, is not currently tracked in TFS, which can negatively impact the project timeline.	G
L	M	M	Design and Development	The project is now adhering to a new DED process and has approved all but a handful of user stories for future Iterations. The Architecture Blueprint, however, has not yet been updated but the project is moving forward with design and development activities for Iterations 2 and 3. Finally, a list of over 35 functionality-related questions, concerns, and potential gaps were documented during the Iteration 2 demonstrations. These items have been added to the product backlog but it is not clear how they will be addressed.	Y



# **Executive Summary**

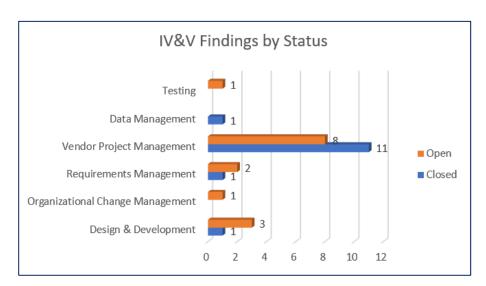
Apr 18	May 18	Jun 18	Process Areas	IV&V Observations	Overall Health
n/a	L	L	Testing	The contract requires delivery of Test Cases with Test Plans, and the State needs to be afforded the opportunity for review. Per the Draft Iteration 2 DED, a listing of test cases will be delivered with the Iteration 2 Test Plan. Per the DED, this will take place the week prior to a the iteration 2 demo. The project is investigating an improved mechanism for validating test cases and ensuring timeliness.	G
n/a	L	L	Data Management	There are currently no open IV&V findings in this process area. The Data Management Team continues to meet regularly and work collaboratively on the development of the Data Dictionary and the Data Management Plan.	G
М	М	M	Organizational Change Management	A comprehensive strategy to support user adoption has been agreed to; however, the agreed upon artifacts and documents have not yet been provided. Without a documented Organizational Change Management (OCM) Plan, the project is challenged with ambiguity regarding roles, task ownership, and activity timelines for estimating resources and other OCM-related costs. IV&V anticipates the risk in this category will be effectively reduced when the OCM Plan and related documentation has been completed and approved. In addition, DOH awaits the training (sandbox) environment for collecting user feedback during Iteration 2. The execution details regarding the sandbox environment (e.g., entrance criteria, feedback loops, etc.) have not yet been defined. Although the BHA completed a "User Engagement and Opportunities for Organizational Change Management" survey to gather user adoption metrics from SMEs to help focus their OCM efforts, IV&V is not aware of any follow-up or mitigation activities identified from the survey results though survey feedback highlighted areas of improvement.	Y

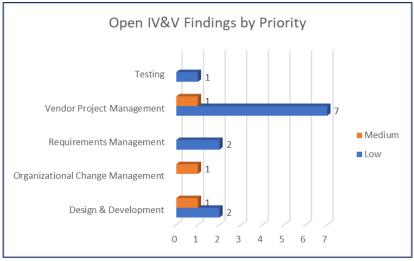


## **Executive Summary**

As of this reporting period, PCG has identified a total of 29 findings (2 issues, 21 risks, and 6 observations) on the Hawaii BHA Integrated Case Management System Project.

Focusing on the total number of IV&V findings, 14 of the 29 findings have been closed, leaving 15 open findings. Of those, there are two medium issues (13%), 1 medium risk (7%) and 12 low risks (80%) as shown below.







#### **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

<sup>\*</sup> There are currently no open IV&V findings in this process area.



#### Vendor Project Management

#	Key Findings	Criticality Rating
16	Unclear review and approval process for project deliverables: The project initiated a new DED (Deliverable Expectation Document) process for Iteration 2 deliverables. IV&V provided comments to DOH on the DED and recommended clarifications related to acceptance criteria. IV&V will continue to monitor the new deliverable management process throughout Iteration 2. Further, IV&V continues to monitor the status of the three outstanding deliverables from Iteration 0: Data Management, System Security, and Architecture Blueprint. These deliverables establish a framework and provide principles and standards that other project deliverables inherit in order to align with the project's objectives and processes.	L
19	Access to enhanced federal funding may impact the project budget and/or scope: Although some constraints that were impeding the project's ability to access enhanced federal funding have been removed (e.g., DHS' completion of P-APD), concerns still exist around the project's ability to draw down enhanced federal funding. DOH will submit the IAPD to DHS for formal submittal to CMS as soon as possible.	M

Recommendations	Progress
<ul> <li>Clarify the deliverable review and approval processes in accordance with RFP requirements and agree on deliverables best suited to be "live" documents (updated throughout the project).</li> </ul>	In-process
BHA to work closely with DHS to pursue available funding options.	In-process
SI to clarify acceptance criteria for each Iteration 2 deliverable in the Iteration DED.	In-process



### Vendor Project Management (cont'd)

	Monitoring for Closure	
2	<b>Long sprint / iteration cycles:</b> The SI is working to establish a training environment for DOH to conduct demonstrations on the previous iteration's functionality in order to support OCM efforts. IV&V will monitor impact of implementing this environment.	L
3	<b>Attention to process improvement seems insufficient:</b> DOH recorded over 35 gaps/questions/concerns from the Iteration 2 demo that should be addressed. These items are currently logged as 'requests' in the Production Backlog to be planned into future iterations. This process should be re-evaluated since some requests may not be appropriately deferred to a future iteration.	L
5	Late-game analysis of requirements awaiting details from external sources: Meetings and discussions continue (e.g. with Med Quest) in order to address pending decisions.	L
6	<b>SI identification/tracking of pain points:</b> While CAMHD and DDD have identified pain points, the SI's process to address these pain points has been unclear. A weekly Thursday meeting with an open agenda to answer questions and respond to issues as they are identified has been initiated.	L
17	SI Resource Constraint: Key SI resources have returned to the project. IV&V is closing this risk.	
18	Competing priorities of BHA SMEs could negatively impact the project timeline: At times, project team members have been constrained by other duties and have shown some resistance to participate in project activities. BHA continues working with SI to mitigate resource challenges.	L
28	Contractual DED Process not being utilized by SI: The rating for this risk has been reduced to Low since the draft DED for Iteration 2 deliverables has been delivered for DOH review. IV&V has assessed for completeness and fitness, and provided feedback to DOH recommending clarification regarding acceptance criteria for each Iteration 2 deliverable.	L



#### Requirements Management

#	Key Findings	Criticality Rating
14	<b>Tracking of requirement elaborations:</b> Requirements elaboration (i.e. the formalization of scope changes based on agreements between the SI and BHA) is not currently tracked in TFS, which can generate rework and impact the project schedule. IV&V has observed the review and approval of user stories but not requirements which may not be a comprehensive approach. In June, IV&V completed a targeted assessment and confirmed that the project is able to trace requirements to user stories to test cases in TFS for Iterations 1 and 2. In light of this validation, IV&V is reducing the rating of this risk to Low. However, IV&V's assessment did not include confirmation of regarding the 'completeness' of requirements elaboration into downstream user stories, as the assessment scope was limited to only Iterations 1 and 2	L
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. While some progress has been made towards clarifying TFS governance (how the tool, and certain aspects of the tool will be used), concerns remain that confusion may still exist, which can lead to inadequate requirements management.	L

Recommendations	Progress
<ul> <li>Request SI define and employ a process for requirements elaboration tracking and approval, including user stories</li> </ul>	Completed
Request IV&V perform a targeted requirements traceability assessment	Completed
Request SI to document a TFS governance process which is approved by BHA	In-process



### **Design and Development**

#	Key Findings	Criticality Rating
12	<b>Use of accelerator:</b> While IV&V recognizes efficiencies can be gained with an accelerator, failure to optimize the system to meet BHA specific needs is a potential risk that should be regularly monitored. The SI is working on documentation which outlines how the system is configured, including net code or scripts, to assist the DOH understanding of the level of customization and/or level of effort of making changes using the accelerator.	L
21	<b>Architecture Blueprint deficiencies:</b> The updated Architecture Blueprint is sill pending delivery by the SI. Since Iteration 1 is now complete and Iterations 2 and 3 are in process, IV&V has transitioned this finding from a risk to an issue. Further, 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 aligned with the blueprint.	M
24	Delays in approving user stories could impact the project schedule: The project has approved all but a handful of user stories for future Iterations. IV&V is closing this risk.	
27	<b>DOH requires procurement of Scribe Insight Licenses for Data Conversion activities</b> : Scribe Insight licenses are required to create Scribe packages to migrate and program data transformations for legacy data dictionaries. It is unclear when these licenses are required to support the data conversion effort in accordance with the project work plan but the project is actively discussing the procurement options for these licenses.	L

Recommendations	Progress
<ul> <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> <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
DOH to procure Scribe Insight licenses in time to support project work plan tasks and activities	In-process



#### **Testing**

#	Key Findings	Criticality Rating
29	<b>Timing of Delivery of Test Case Details:</b> The contract requires delivery of Test Cases and Scripts with Test Plans, and the State needs to be afforded the opportunity for review. Per the Draft Iteration 2 DED, a listing of test cases will be delivered with the Iteration 2 Test Plan. Per the DED, this will take place the week prior to a the iteration 2 demo. The project is investigating an improved mechanism for validating test cases and ensuring timeliness. IV&V will continue to monitor the timing of the delivery and confirmation of test cases and scripts in the Iteration 2 and 3 Test Plans.	L

Recommendations	Progress
<ul> <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



### Organizational Change Management

#	Key Findings	Criticality Rating
7	Minimal attention to User Adoption (buy-in): The SI has committed to a training (sandbox) environment to provide the opportunity for user feedback beginning with Iteration 2. The execution details regarding the training environment (e.g., entrance criteria, feedback loops, etc.) have not yet been defined. The BHA completed a "User Engagement and opportunities for Organizational Change Management" SME survey to gather user adoption metrics to help focus their OCM efforts. IV&V is not aware of any follow-up or mitigation activities identified from the survey results though survey feedback highlighted areas for improvement. Finally, a documented OCM Plan would serve to alleviate the ambiguity regarding roles, task ownership, and activity timelines. IV&V plans to review the draft OCM plan which is scheduled to be delivered in June.	M
6	Use of pain points to improve OCM: (See Vendor Project Management Finding #6) In support of DOH's OCM strategy, the SI has been working closely with DOH to develop a process for how the project will leverage the BHA pain points list throughout the project. The BHA has requested more information from the SI on the practical application of its OCM strategy as the project moves ahead. The Weekly Thursday meeting between the SI and the State enables the project to touch base on project-related impediments or issues which includes OCM-related topics as well but IV&V has not yet observed any discussion related to pain points in this meeting.	L

Recommendations	Progress
Request the SI support DOH in the development of a comprehensive OCM strategy.	In process
Agree on an approach for how the SI will utilize the pain point list created by BHA	In process
Recommend SI commence work on a comprehensive OCM Plan immediately	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
  - The project is under control and the current scope can be delivered within the current schedule.
- G
- 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).
- 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.
- 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
Н	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 (5/26/18 6/22/18)
- 2. BHA IV&V Monthly Report review meeting
- 3. BHA/RSM IV&V Monthly Report review meeting
- 4. IV&V Status meeting (6/8/18)
- 5. Iteration 2 Demonstrations (6/12/18)
- 6. BHA ITS Weekly Status Meeting (selected)
- 7. BHA ITS Iteration 3 Planning (series of 3 meetings)
- 8. Weekly Data Migration Meeting (selected)
- 9. Daily Scrum meetings (selected)
- 10. RSM Phase 2 Planning Meetings (selected)

#### **Artifacts reviewed during the reporting period:**

- 1. SI Iteration Plan
- 2. SI Iteration Test Plan
- 3. SI Iteration Schedule
- 4. SI Weekly Status Reports
- 5. Daily Scrum Notes (selected)
- 6. SI Project Schedule

#### Eclipse IV&V® Base Standards and Checklists







ld Identified Date	Summary	Observation	Significance	Recommendation	Updates	Process Area	Туре	Priority	Status	Closure Reason	Iteration
2 09/01/17	Long sprint / iteration cycles	The SI has chosen to employ long iteration cycles.	Typical agile development projects employ two-week iteration cycles. The benefits of Agile development revolve around timely feedback from users based on short iteration cycles. Longer iterations can introduce a risk that the SI will waste valuable time developing a design without timely user feedback to course correct, which could negatively impact the project schedule and budget.	Recommend BHA request the SI continue to provide further SDLC and iteration activity details and request the SI engage with key SME's throughout the iteration to ensure the system design and functionality meets their needs and expectations. IVV will continue to monitor to validate that the BHA's expectations are met.	6/19/18: W&V awaits the configuration and implementation of the trainining environment in order to assess its impact on mitigating risk.  5/21/18: SI committing to a training (sandbox) environment for Division level staff beginning in Iteration 2.  4/18/18: Unclear if SI is providing sufficient mid-sprint demos to validate user story implementations. IV&V is only aware of one such demo reported by BHA during Iteration 1.  4/1/18: SI has committed to providing mid-sprint demos for select SMEs to validate complex or unclear user story implementations.  3/20/18: SI has provided good details of their Agile methodology as part of the scrum kickoff meeting and distributed the PowerPoint deck that was presented to attendees for future reference.  3/2/18: The SI has provided additional methodology details which has given IV&V a better understanding of the SI's methodology and the rational for 6-week iterations as well as their intent to perform mid-sprint demonstrations of functionality. IV&V will continue to monitor.	Vendor Project Management	Risk	Low	Open		0
3 09/01/17	Attention to process improvement seems insufficient	SI analysis techniques that seem to avoid delving into opportunities for process improvement.	This could lead to a 'to-be' design that automates existing processes rather than improve them.  Requirement 272 in the DOH's RFP states, "The SI will be vigilant to look for and identify opportunities for process improvement and notify DOH". See related risk titled "Visual Tools".  The SI could decide BHA must pay for (via contract mods or swaps) enhancements that should have been part of the original design and identified during discovery and design phases. Swaps involve the removal of original requirements in place of newly discovered requirements/functionality (enhancements). Swapping out original requirements/features can degrade the quality of the system and lead to unmet user expectations. Swapping can incur significant future costs as it's likely BHA will need to implement (and acquire separate funding for) features that get swapped out of the original fixed price project scope.	methods. Other suggestions include:  1) Consider a short CRM overview session for SMEs to familiarize them with CRM capabilities to better understand and articulate process improvements that can be supported by the Dynamics CRM platform.  2) Consider demos from other similar BHA Dynamics CRM implementations to better understand and articulate process improvements that the solution can support.  3) Meet with the SI to request elicitation and maintenance of prioritized business problems, pain points, and improvement opportunities that are reviewed with SMEs regularly to ensure the solution is solving the right business problems and taking advantage of opportunities to improve processes through the new CRM capabilities.	2/21/18: This process should be re-evaluated since some requests may not be appropriately deferred to a future iteration; each request should be re-evaluated since some requests may not be appropriately deferred to a future iteration; each request should be reviewed and planned to an appropriat iteration and/or the stabilization period to reduce the uncertainty surrounding the pending outcome of these requests.  06/19/18: IV&V is unaware if DHS has obtained access to the sandbox environment yet. IV&V observed gaps/questions/concerns from the demo that need to be resolved. RSM approach is to put these items as 'requests' back into the Production Backlog for planning into future iterations (beyond 3) - but some of these items may not be appropriately labeled as 'Request'. This process may need to re-evaluated as not all items are requests for 'new' functionality.  5/25/18: The BHA Deliverables Summary Memo has been finalized and includes agreed upon terms for a training (sandbox) environment, a demo of the TFS system, and the development of queries for the RTM.  5/21/18: IV&V has not observed progress towards the mitigation of this risk during the reporting period.  4/11/18: During a sprint demo of the Calculator, BHA was surprised to find out that drag & drop functionality was overlooked by the Si analysts. SI has stated that this feature was out identified by BHA as a requirement, even though the tool that the Calculator is mimicing includes this feature. When asked if the SI analyst asked SMEs if the Calculator would require the same drag and drop functionality, the SI provided no response. Seems the SI analysts assumed the more difficult method of opening each event and changing the time/date.  3/14/18: SI demo'd progress on a separate development effort called the "Calculator". SI garnered and encouraged feedback from SME's.  3/14/18: BHA has indicated that individual efforts by SI analysts during user story approval seems to have made up for some of the lack of analysis depth during the discovery phase.  2/	-	Risk	Low	Open		0

ld I	Identified	Summary	Observation	Significance	Recommendation	Updates	Process Area	Туре	Priority	Status	Closure Reason	Iteration
السا	Date											
5 (	09/01/17	Late-game analysis of	Appears the SI does not	One of the primary benefits of an Agile approach is	Recommend BHA and the SI come to agreement on	6/19/18: Meetings and discussions continue and the IAPD update is in progress. Decisions regarding DHS	Vendor Project	Risk	Low	Open		0
		requirements awaiting		that requirements that are not ready to be fully	a limited list of requirements that will be defined at	interfaces are pending.	Management					
		details from external	of requirements, preferring	defined (e.g. requirements that are awaiting outside	a later date. Recommend the SI avoid spending							
		sources	to define all user stories	agency information/details) can be addressed later	time, where it makes sense, on requirements with	6/8/18: Meetings and discussions are ongoing; and dependencies are down from 8 to 2-3. DOH expects to hear						
			upfront until other	without a loss of productivity. An unwillingness to	external dependencies. Once an agreement is	back from Agency within the next 1-2 months regarding the timing of their availability to work on interfaces. DHS						
			dependencies are known.	define requirements at a later date may increase the	reached, IVV will continue to monitor to validate	resources are allocated through September so may need to move functionality into Phase 2.						
			For example, instead of	risk that the SI develops features that are not needed	that the BHA's expectations are met.							
			putting the DHS interface	or no longer meet the needs of the users. This could		5/21/18 - IV&V has not observed progress towards the mitigation of this risk during the reporting period. The						
			requirement specification	also incur additional project costs if the SI fails to		project awaits feedback from DHS regarding when resources will be available; if State resources cannot be made						
			on hold until it's clear	accurately estimate late-game user stories and		available timely, some interfaces requirements may need to be moved to Phase 2.						
			whether DHS will provide a	considers any late-game requirements as								
			web service, the SI is now	enhancements that will incur additional cost or swaps		3/25/18: The SI is seeking User Story signoff in order to lock in project scope. When asked about requirements						
			defining specifications for a	(see observation #26).		whose details may become more clear at a later point in the project they have stated that there will be the						
			manual import (non-web			opportunity to swap out functionality for requirements whose details may be more readily available later in the						
			service).			project. However, it may not be clear that swapped out functionality has an associated future cost as it's likely						
						BHA will need to implement (and acquire separate funding for) features that get swapped out sometime in the						
						future.						
6 (	09/01/17	SI identification/ tracking of	SI currently does not track	Agile methods typically focus on solving real problems	Suggest BHA/SI agree on an approach to leverage	6/19/18: Weekly Thursday meetings continue, with an open agenda to answer questions and respond to issues as	Vendor Project	Risk	Low	Open		0
		pain points	or effectively utilize	and employ methods to allow the users to provide	the BHA's pain points throughout the project. IV&V	they are identified.	Management					
			business process pain	timely (typically with shorter sprints) feedback to	also recommends that the project's OCM strategy							
			points.	ensure that the business problems are being solved.	address/incorporate these pain points to show users	5/25/18: A weekly Thursday to troubleshoot and discuss issus has been scheduled.						
				Tracking pain points can be an effective OCM strategy	that the system is solving real business problems							
				for user adoption and buy-in by providing visibility to	which should lead to increased adoption rates.	5/21/18 - IV&V has not observed progress towards the mitigation of this risk during the reporting period.						
				the users of problems the system is solving as well as	While the SI's draft PMP includes an OCM Plan that							
				showing them traceability of pain points to system	provides some information (mostly around training)	4/11/18: CAMHD is tracking pain points, which have been sent to RSM, DD will do the same. BHA plans to meet						
				features during sprint demos.	IV&V recommends the SI commence work on a	with SI to discuss use of pain points.						
					comprehensive OCM Plan immediately.							
				Failure to track pain points and business problems can		3/2/18: SI has stated that tracking pain points is out of scope and that pain points have been addressed within						
				lead to a final product that fails to provide maximum	Once an agreement is reached, IVV will continue to	the user stories. IV&V will continue to recommend, at minimum, the project maintain a short list of (mostly high-						
				value to the users. Failure to succinctly document,	monitor to validate that the BHA's expectations are	level) business pain points.						
				track, and reference business process pain points in	met.							
				sprint demos could lead to reduced user adoption and		1/25/18: BHA has assumed responsibility for tracking pain points. The process for how the SI will utilize this list						
				executive buy-in, support, and satisfaction. In the end,		needs to be identified and monitored.						
				this could lead to a reduction of ongoing project								
				funding, a weakened SI reputation, and public scrutiny.								
1 1												

Id Identified Date	Summary	Observation	Significance	Recommendation	Updates	Process Area	Туре	Priority	Status	Closure Reason	Iteration
7 09/01/17	Minimal attention to User Adoption (buy-in)	SI seems to lack a comprehensive strategy to support user adoption.	Failure to implement an effective user adoption strategy could lead to resistance during system rollout, refusal to participate in the development/rollout process, resistance to use the system, and negative public perceptions (including the media). In the end, this could lead to a reduction of ongoing project funding, a weakened SI reputation, as well as long-term public scrutiny and criticism.	Recognizing that the SI has committed to a training (sandbox) environment for SME validations of functionality and to provide the opportunity for user involvement, IV&V would suggest that other measures should be taken as well. For example, although the State has initiated the practice of tracking pain points, the process for how the SI will utilize this list has not been clearly identified and monitored. Tracking pain points can be an effective OCM strategy for user adoption and buy-in as it provides visibility to the users of problems the system is actually solving and provides traceability of pain points to system features during sprint demos. IV&V also recommends BHA request the SI adopt a general user adoption strategy going forward. IVW will continue to monitor to validate that the BHA's expectations are met.	6/8/18: BHA working with SI to determine how soon the training (sandbox) environment can be set up for Iteration 2 and what steps can be taken to expedite since it is needed soon. In the CAMDH Training Plan, there are 2-3 demonstations planned for each Iteration since this is an important step for OCM.  5/21/18 - SI committing to training (sandbox) environment for Division level staff beginning with Iteration 2. In	Organizational Change Management	Risk	Medium	Open		0
12 09/01/17	Use of accelerator	The SI intends to utilize an accelerator as a starting point for system development. Seems the accelerator involves essentially retrofitting code and a configuration package, from system(s) previously developed, into the BHA ITS as a foundational component. Additionally, at times it seems like the SI is remiss to suggest design concepts that don't align with the existing functionality of their accelerator.	While IV&V recognizes efficiencies can be gained and the value of re-use, failure to optimize the system to meet BHA specific needs can lead to a solution that is less than optimal/productive and require BHA users to employ work arounds and lengthy processes to complete their work.  The risks around employing the RSM accelerator are still unclear, however, use of accelerators, in general, have been known to be difficult to modify and maintain due to: - Bugs could occur that are not easy to track down because its buried in the complex functionality of the accelerator - Interactions with accelerator could cause bugs - Added complexity - Removal of any component that's not needed can cause unforeseen interactions or complications (may break other things in the accelerator)	and activities to mitigate typical issues/problems/risks associated with the use of accelerators. Recommend BHA monitor for and request SI base design decision on what's best suited	6/19/28: Documentation for the acceperator still not provided by RSM.  5/25/18 - RSM committed to providing documentation to the State which outlines how the system is configured, including, net code or scripts, to assist the SOH understand the level of customization and/or level of effort of making changes using the accelerator. No time commitment was offerred during the discussion but IV&V will review this information when it becomes available.  5/21/18 - Accelerator documentation request still unfulfilled. The documentation outlining the methodology for how this tool will be used is insufficient and does not address how the SI plans to mitigate the use of the tool in absence of documented best practices for tool usage. The project has no visibility into the Accelerator.  4/19/18: SI responding to Accelerator documentation request with details of Accelerator capabilities but provided little to no details that would help assure mitigation of this risk.  4/5/18: SI responded with more details regarding risk mitigation steps they are taking and mentioned accelerator documentation. IV&V has requested documentation be provided to the project.  4/3/18: IV&V received response from the SI on 4/3/18, stating that "Our Accelerator was made available for Hawaii use on March 19, 2018, which belies this finding."  IV&V is not clear how this response addresses the potential risks raised in the January IV&V report. IV&V has requested a further details.  4/2/18: SI has agreed to provide mitigation strategies they've employed for this risk.	Design & Development	Risk	Low	Open		0

ld Identified	Summary	Observation	Significance	Recommendation	Updates	Process Area	Туре	Priority	Status	Closure Reason	Iteration
14 09/03/17	Tracking of requirement elaborations	to capture features SMEs want most seem to be inadequate. For example, during a sprint demo of the Calculator, BHA was surprised to find out that drag & drop functionality was overlooked by the SI analysts. SI has stated that this feature was not identified by BHA as a requirement, even though the tool that the Calculator is mimicking includes this feature. When asked if the	address user needs and preferences. This could lead to future increased project costs. For example, the SI could decide BHA must pay for (via contract mods or swaps) enhancements that should have been part of the original design and identified during initial user story definition. Swaps involve the removal of original (lower priority) requirements in place of newly	to by DOH. In instances where user stories are already completed, JAD sessions are recommended to ensure the requirements are fiully elaborated, documented, and agreed to.	5/21/18 - IV&V has observed the review and approval of user stories but not requirements which may not be a	Requirements Management	Risk	Low	Open		0
16 01/23/18	Unclear review and approval process for project deliverables	Management Plan (including project work plan), Deliverable Expectation Document, and Test Strategy. The SI PM/Lead Analyst has stated there is an assumption of tacit signoff on some or all of these deliverables due to the fact that they have been	acknowledgement that the deliverable was satisfactorily performed/developed."  Without an explicit signoff process for deliverables, the SI may assume their customer has agreed to plans, methodologies, activities and processes, when they have serious concerns. For example, the Project Management Plan should provide details of methods, processes and activities that will be employed throughout the project. Lack of clear understanding and agreement of project methods and activities can reduce project productivity, quality, and effective management. Misunderstandings about project	agreed upon deliverable acceptance and sign-off process, which should include review sessions to ensure clear understanding and open dialog around each deliverable. Recommend deliverables only be signed off when all issues have been resolved with BHA leadership as well as a signoff process that leaves no room for ambiguity. Recommend BHA and SI come to agreement on deliverables best suited to be "live" documents (documents that will continue to be updated throughout the project as content becomes available/solidified). Recommend BHA request SI deliverable review sessions on key deliverables (e.g. Architecture Blueprint, Configuration Management Plan, Data Management Plan) prior to signoff. Once an agreement is reached, VRAV will continue to monitor to validate that the BHA's expectations are	6/22/18: DAD (Deliverable Acceptance Document) have been provided for most of the Iteration 1 deliverables and the project initiated a new DED (Deliverable Expectation Document) process for Iteration 2 deliverables. IV&V will continue to monitor the new DED process throughout Iteration 2.  5/25/18: The BHA Deliverables Summary Memo has been finalized and includes agreed upon terms for reviewing and approving deliverables moving forward.  05/21/18 - An approval process which clarifies and ensures all deliverables are meeting project needs has been agreed to though the project has yet to produce the documentation that was included in the agreement which will provide the details of the agreed upon process.  4/16/18: IV&V provided the Project with a revised DCF review process document to help clarify the process. BHA is currently reviewing the process.  4/11/18: Recommend requesting SI update PMP, agreeing it is a living document.  4/11/18: BHA has stated there does appear to be some confusion around terminology (e.g., document names). IV&V believes there remains room for clarification around the DCF process as part of the overall deliverable review and acceptance process. Unbeknownst to IV&V, some of the deliverables that we have been waiting for (such as the Configuration Management Plan) were approved quite some time ago, which has added to the confusion. In response, IV&V has created a deliverable tracking log. IV&V recommends BHA review any critical deliverables that RSM and/or DOH consider to be approved, and rather than re-opening them, identify if there are any critical findings associated with the deliverables that may impact the project, and add them to our risk log as appropriate.  4/9/18: Although the SI provided comments on IV&V's proposed DCF Review process on 3/14/18, we could not find any evidence of BHA's final approval of this document/process. Re-categorization of this risk as 'monitor for closure' in the March 2018 IV&V report is pending BHA's acceptance of RSM's proposed revisions to the DCF Re	Vendor Project Management	Risk	Low	Open		0

Id	Identified Date	Summary	Observation	Significance	Recommendation	Updates	Process Area	Туре	Priority	Status	Closure Reason	Iteration
18	09/01/17	Competing priorities of BHA	Some state staff have at	SMEs competing priorities can negatively impact the	Analyze/monitor BHA SME capacity to avoid	6/19/18 - IV&V has not observed progress towards the mitigation of this risk during the reporting period and	Vendor Project	Risk	Low	Open		0
1		SMEs could negatively	times been constrained by	overall quality of work the project relies on; delays	potential project delays and communicate	continues to monitor planning for future Iterations and for Phase 2 interfaces.	Management					
1		impact the project timeline	other duties and have	SMEs response to project needs could negatively	expectations clearly to staff. Recommend BHA							
			shown some resistance to	impact the project schedule.	leadership actively encourage and support staff	5/21/18 - IV&V has not observed progress towards the mitigation of this risk during the reporting period.						
			participate in project		participation and assist them with prioritizing their							
1			activities. SME attendance		duties to accommodate full participation in the	4/11/18: BHA is working with SI to mitigate resource challenges, currently key members of the project team are						
1			and participation in project		project. Recommend BHA consider staff	over tasked. CAMHD resources to assist DDD in support of project tasks (e.g. data migration).						
1			meeting has been waning		augmentation to meet project specific needs.							
			at times, requiring		IV&V will continue to monitor concerns over	4/2/18: BHA stated that final user story approval delays are mostly due to SME indecisiveness, a smaller part due						
1			meetings to be		constrained stakeholder capacity throughout the	to limited SME capacity. BHA mitigation strategy is to propose a finalized user story and give SME's a deadline, if						
			rescheduled.		project.	not met user story will be left as is.						
						3/25/18: BHA SME's will be a key resource for data migration. IV&V has concern these activities could be						
						delayed if the level of effort is greater than expected.						
						3/20/18: Final user story approval has been delayed and caused schedule slippage, seeming due to delays in BHA						
						business resource responsiveness. SI has logged this as a project risk but it seems unclear whether this has						
						hindered developer productivity.						
						10/2/17: BHA leadership has addressed this issue and attendance to project meetings has improved. However,						
1						participation still seems to be lacking. Many times, attendees prefer to call instead of attending in person. In						
<u> </u>	<u> </u>					person attendees are typically much more engaged than those who call in. Many attendees who call-in offer little		ļ	1	1		
19	09/01/17	Federal funding risk	Ability to access enhanced	Delays in securing enhanced funding has delayed		6/8/18: Constraints that were previously holding up DHS have been removed and DHS will not be submitting a	Vendor Project	Issue	Medium	Open		0
			federal funding as initially	system development. Inability to claim federal funds	to pursue available funding options. IV&V will	PAPD. The IAPD will be submitted within the next few reporting cycles.	Management					
			planned is at risk due to	could negatively impact the project budget, scope and schedule.	continue to monitor progress.	E /21/19 DON is planning an completing the IARD for submitted to CMS part month						
			State Medicaid Agency delays in completing its	scriedule.		5/21/18 - DOH is planning on completing the IAPD for submittal to CMS next month.						
1			MITA State Self-Assessment			2/22/18: Approach to draw-down of federal funding was discussed in the project steering committee meeting.						
			(SS-A) prior to the submittal			DHS plans to submit a PAPD, with which DOH's IAPD would be aligned. According to DHS, work on the PAPD is						
1			of DOH's IAPD.			pending receipt of DOH's IAPD. In the meantime, DOH is also pursuing 50/50 admin claiming to support the						
			0. 20.13 IAI D.			project. This will require an update to DHS' Cost Allocation Plan (to allow DOH's project costs to be submitted on						
20	2/23/18	TFS governance appears to	TFS (Microsoft's Team	TFS is a highly customizable, flexible, and complex tool	Personmend BHA request SI to desument the TES	6/19/18: IV&V is unaware of any documentation delivered to the State regarding the TFS tool.	Requirements	Risk	Low	Open		0
20	2/23/10	be insufficient	Foundation Server) is the	that is utilized in different ways by different project	governance process and provide to BHA for review	10/ 12/ 10. TYCKY is unaware of any documentation delivered to the state regarding the IFS (00).	Management	NISK	LOW	Ореп		U
		DE MISURICIENT	projects central repository	team members. TFS veterans often tout the	and approval. Once better governance has been	5/25/18 - RSM committed to providing documentation to the State which clarifies how the tool is being used and	iviailageilleilt					
1			database of all	importance of establishing clear standards, templates	solidified, IV&V will continue to monitor to validate	how to interpret the status of any one item						
1			requirements, user stories,	and processes (i.e. governance) for entering and	that the BHA's expectations are met.	The state of the s						
			development tasks, test	managing data in TFS before data entry begins.		5/21/18 - The state has requested an RSM-developed query that includes the Requirements Traceability Matrix						
	1		cases, bugs, and source	- 9		requirement ID number to maintain overall traceability from requirements through user stories.						
1			code. Each project team	While some progress has been made towards clarifying								
1			member (from developers	TFS governance through diagramming the user story		4/11/18: Some confusion seems to continue to exist over TFS governance. Details of governance (e.g. how they						
1			to analysts to project	process flow, concerns remain that TFS governance has		will use tags) continue to be worked out and communicated during scrum calls and other meetings. Unclear if						
1			managers to BHA project	not been thoroughly established, which can lead to		TFS governance decisions made during these calls are documented or effectively communicated to all TFS users						
1			leadership) relies on TFS as	ineffective/inefficient use of TFS throughout the		or to users that missed the call.						
1			their primary source of	project and inadequate requirements management.								
			project information and			3/15/18: SI provided Visio diagram of "Request Life Cycle" includes some details of user story tracking and makes						
			activity tracking.	In addition, the RFP requires that, "The SI firm shall		mention of new user story status conventions.						
1				utilize the fullest capabilities of Visual Studio Online								
			Seems the SI's TFS	(referenced throughout as Team Foundation Services,		2/26/18: This finding is a breakout of a closed finding (#13) that focuses on TFS governance.						
			governance (how the tool	or TFS) for solution Application Lifecycle Management								
1			will be used) has not been	(ALM), in addition to Visual Studio for development		2/23/18: RFP requires TFS governance to be documented in the Configuration Management Plan which is						
			clearly thought through or	purposes."		currently being developed by the SI.						
			clearly established.					1			1	1

ld	Identified Date	Summary	Observation	Significance	Recommendation	Updates	Process Area	Туре	Priority	Status	Closure Reason	Iteration	
21	2/23/18	Architecture Blueprint and Roadmap deficiencies	IV&V reviewed the SI's draf Architecture Blueprint and Roadmap deliverables and observed that the documents seem to be missing key information.	int and system design details (captured during the design phase) and infrastructure details critical to the development phase. Lack of a planned and documented design decisions could lead to confusion and rework by the development team and can hinder strategic planning (e.g. licensing) for the project team. In the end this could lead to a less than optimal development phase.  Similar deficiencies were noted in the Roadmap, and due to the signficance of this deliverable to the project, it was included in this finding.	ueprint and system design details (captured during the design phase) and infrastructure details critical to the development phase. Lack of a planned and documented design decisions could lead to confusion and rework by the development team and can hinder strategic planning (e.g. licensing) for the project team. In the end this could lead to a less than optimal development phase.	ure Blueprint and of deliverables and that the development phase. Lack of a planned and documented design decisions could lead to confusion and rework by the development team and can hinder strategic planning (e.g. licensing) for the project team. In the end this could lead to a less than optimal development phase.	chitecture Blueprint and admap deliverables and served that the development phase. Lack of a planned and design decisions could lead to confusion and rework by the development team and can hinder strategic planning (e.g. licensing) for the project team. In the end this could lead to a less than optimal development phase.  Similar deficiencies were noted in the Roadmap, and	Design & Development	Issue	Medium	Open		0
						4/25/18: Updated to include Roadmap deficiencies 3/19/18: SI provided responses to DCF comments but have yet to deliver updated Architecture Blueprint Document. 3/7/18: With the environment buildout beginning shortly and development currently slated to begin on 3/12, IV&V is concerned this document lacks sufficient environment buildout details. 2/23/18: IV&V provided comments to BHA via DCF (document comment form) and awaits BHA/SI responses. Draft seems to focus on what the Dynamics CRM platform can do (out of the box) as opposed to what the SI will							
27	05/02/18	DOH requires procurement of Scribe Insight Licenses for Data Conversion activities	Scribe Insight licenses are required to create Scribe packages to migrate and program date in transformations for legacy data dictionaries.	It is unclear when these licenses are required to support the data conversion effort IAW the project workplan	DOH to procure licenses in time to support project workplan tasks and activities	10/61/1981: IV&V is unaware if DHS has commenced licensing procurement yet and it is unclear when these licenses are needed before impacting the project.  5/25/18 - Teams are discussing the licensing issue via emails and a follow-up meeting is scheduled next week.  5/21/18: IV&V opened this as a new observation during the reporting period. The State is investigating why this is required and the SI needs to determine 'when' this is needed.	Design & Development	Observa tion	Low	Open			
28	05/21/18	Contractual DED Process not being utilized by SI	The contractually required DED process is not beng followed.	Deliverable review and approval timeframes are typically elongated when a DED is not developed and agreed to in advance of development of each deliverable.	The SI should confom to the contract requirements of developing DEDs prior to developing deliverables. Indicate in the deliverable review response which changes must be made in order for the deliverable to be approved.  SI to clarify acceptance criteria for each Iteration 2 deliverable in the Iteration DED.	6/21/18: The DRAFT DED for Iteration 2 deliverables has been delivered. IV&V has assessed for completeness and fitness, and provided feedback to DOH. Need clarification re: acceptance criteria for all deliverables.  5/25/18: The BHA Deliverables Summary Memo has been finalized and includes agreed upon terms producing one DED per Iteration for each Deliverable Type. Anita is tasked with developing the first DED when she returns from vacation.  5/21/18: IV&V opened this as a new observation during the reporting period. The State assumes that RSM will make changes to deliverables, as requested after review, and then the state will accept. IV&V researched that the contract does not define this process that explicitly. One could assume that the review/approal cycle would keep repeating itself until the deliverable is accepted, but that is not stated either. What is clear, is that all deliverables are subject to the State's acceptance. So the project agreed to a revised approach moving forward. The SI will provide one (1) DED for each iteration; and each iteration's DED will be inclusive of all the deliverables specific to that iteration. Deliverable review and approval timeframes are typically elongated when a DED is not developed and agreed to in advance of development of each deliverable.	Vendor Project Management	Risk	Low	Open			
29	05/21/18	Timing of Delivery of Test Case Details	The contract requires delivery of Test Cases with Test Plans, and the State needs to be afforded the opportunity for review and approval. This process should be evaluated for improvement opportunities. The State and SI are now meeting weekly so that testing results, which are not included in TFS but rather a defect log, can be reviewed and addressed timely by the State.		for providing Test Cases for DOH review and approval.  SI to send weekly summary of test cases (new and udpated) to SOH for review and confirmation and begin tracking which reviewed and completed. SI to	6/21/18: Per the Draft Iteration 2 DED, a listing of test cases will be delivered with the Iteration Test Plan. Per the DED, this will take place the week prior to a the iteration demo, which may be may be way too late in the cycle.  5/25/18: The BHA Deliverables Summary Memo has been finalized and includes agreements regarding a weekly Thursday meeting to review and Clarify Test Cases and Scripts.  5/21/18: IV&V opened this as a new observation during the reporting period. It has been agreed that RSM will add a weekly 45 minute review session for feedback on Test Cases on Thursday mornings. In addition to the review sessions, BHA expects to receive the test cases delivered with the Iteration Test Plan. BHA will provide feedback on the test cases within two weeks from the start of the iteration and in the review sension. It is unclear how the S1 is tracking whether or not Test Cases have been run for each requirement since only User Stories with defects have any indication that testing occurred. Therefore, there is no visibility for the project as to what testing has been completed and how much remains.	Testing	Risk	Low	Open			