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March 21, 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).

Upon further review of the report, some issues were brought to my attention. I was concerned the vendor was not including organizational change management while working on the project. It also appears that the systems integrator is not allowing time needed for improving the business processes. After raising my concerns to the Department of Health, it is working to address the issues.

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

Sincerely,

TODD NACAPUY
Chief Information Officer
State of Hawai'i

Attachment (2)



Hawaii BHA Integrated Case Management System Project

IV&V Monthly Status Report - Final
Reporting Period: February 2018

Prepared by PCG's Michael Fors & Laurie Thornton

Initially delivered: Feb. 27, 2018

Revised: March 7, 2018

Finalized: March 8, 2018

Overview

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

Executive Summary

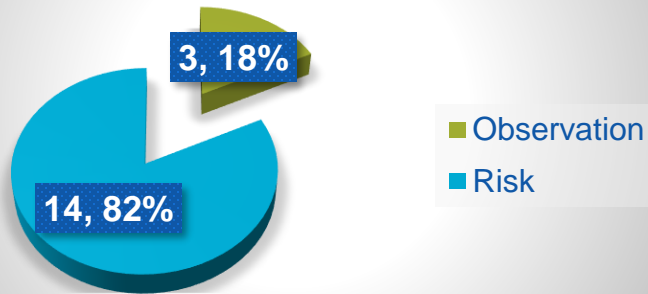
Overall the project seems to be making good progress despite initial challenges in some areas – most specifically, vendor management. IV&V is hopeful that the replacement of two SI PM resources will address some of these challenges, and will continue monitoring activities as appropriate. Discovery phase concerns continued to persist during this reporting period, and IV&V would encourage the SI to develop mitigation strategies to address this, as well as other concerns identified in the IV&V report(s) on a timely basis to promote project success.

Jan 18	Process Areas	IV&V Observations
M	Vendor Project Management	IV&V continues to track 10 risks/observations specific to this process area but is hopeful, with the replacement of 2 SI PM resources, these risks will be mitigated. With these additions, project roles and responsibilities should be clearly defined by the SI. While the project seems to be on track, some of these risks could pose a threat to project success and software quality primarily due to a less-than optimal discovery phase, the lack of clarity around the SI's SDLC processes and the SI's lack of attention to risk management.
L	Requirements Management	IV&V's main concern is over the lack of a clearly established governance process in accordance with best practices to manage requirements & user stories using the Project's ALM tool (TFS).
M	Design and Development	Development has yet to begin, however IV&V has concerns over the SI's planned use of a custom accelerator, and the tendency of the SI team to steer BHA towards existing functionality without careful analysis of functionality that may be specific to BHA's needs.
M	Organizational Change Management	IV&V remains concerned with the SI's apparent lack of attention to user adoption and that the SI does not plan to elicit, track and leverage the use of business process pain points, which could negatively impact OCM effectiveness.

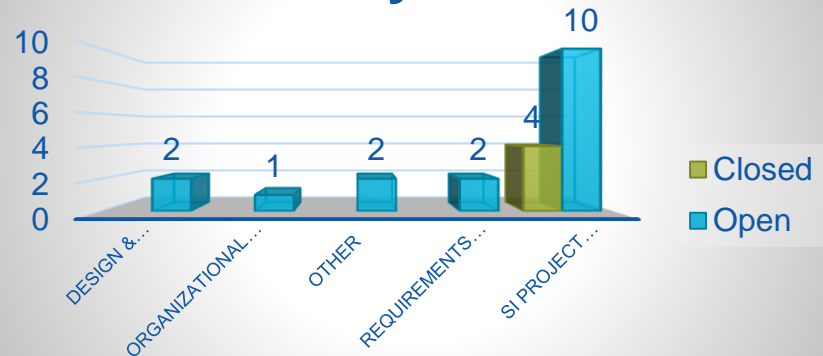
Executive Summary

As of this reporting period, PCG has identified a total of 21 findings (18 risks and 3 observations). Of the open risks, 10 are related to Vendor Project Management. One risk and 2 observations were added during this reporting period, and 4 risks that were opened during the previous reporting period were closed. The following graphs breakdown the risks by type, status, and priority/criticality.

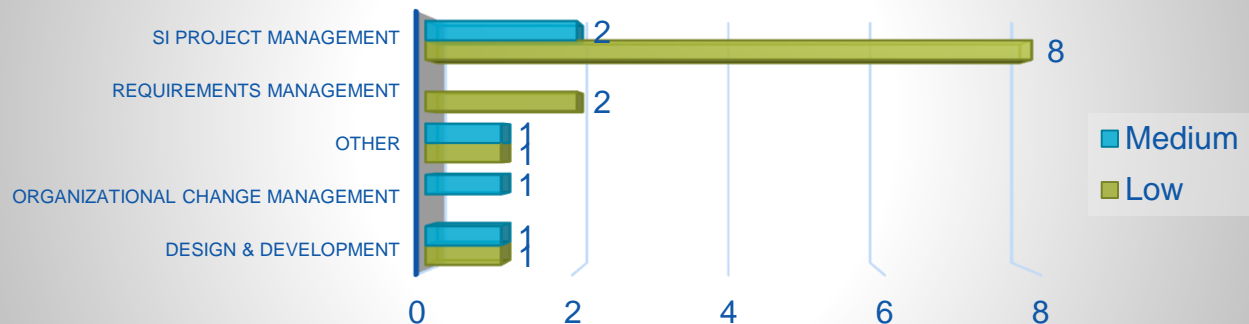
Risks by Type



Risk by Status



Risks by Priority



IV&V Activities

The activities that PCG performed to inform the IV&V report for the current period are listed below. Upcoming activities are also included. For specifics, see Appendix B – Inputs.

- IV&V activities performed during the reporting period:
 1. Attended Data Migration meeting
 2. Attended Schedule and Scope Planning meetings
 3. Attended Design/Solution/Estimate Review Meetings
 4. Attended weekly SI project status meetings
 5. Attended Project Steering Committee meeting
 6. Attended User Story Review Sessions
 7. Facilitated IV&V Monthly Report review meetings
 8. Attended other strategy & analysis meetings
 9. Reviewed Architectural Blueprint deliverable
- IV&V activities planned for the upcoming reporting period:
 1. Attend weekly SI project status and analysis meetings
 2. Attend other strategy & analysis meetings as needed
 3. Attend bi-weekly IV&V meeting
 4. Review project deliverables
 5. Prepare/review IV&V Monthly Report
 6. Attend Project Steering Committee meeting

IV&V Findings and Recommendations

Process Areas Reviewed

Throughout this project, IV&V will verify and validate activities performed in the following process areas. Those areas that were reviewed during the current period are asterisked below:

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

* Indicates process area addressed in this report

IV&V Findings and Recommendations

Vendor Project Management

Key Findings	Criticality Rating
<ul style="list-style-type: none"> Unclear risk management processes (#22) <i>(New observation!)</i> 	L
<ul style="list-style-type: none"> SME participation challenges (#11) 	L
<ul style="list-style-type: none"> Unclear review and approval process for project deliverables (#16) 	L
<ul style="list-style-type: none"> SI resource turnover (#17) 	L

Best Practices	Recommendations	Progress
<ul style="list-style-type: none"> Executive stakeholder buy-in, participation and support continue to exist throughout the Project The Project Management Plan is developed, maintained, and followed throughout the Project Project reporting clearly communicates project status to the project management team and key stakeholders 	<ul style="list-style-type: none"> Meet with SI Executive Management to address these concerns during the transition to the new PM/Lead Analyst and track progress as part of separate but regular engagement manager meetings with the BHA 	Complete
	<ul style="list-style-type: none"> Request SI improve resource turnover by implementing recommendations from findings log 	In-progress
	<ul style="list-style-type: none"> Recommend the SI make every effort to stimulate state SME engagement in future discussions 	In-progress
	<ul style="list-style-type: none"> Recommend BHA request the SI clarify and follow an agreed upon acceptance and sign-off process 	In-progress

IV&V Findings and Recommendations

Vendor Project Management Discussion

Vendor project management

IV&V is currently tracking 10 vendor project management risks/observations and closed 4 during this reporting period. IV&V is hopeful, with the SI's replacement of 2 PM resources, that several project management risks will be quickly addressed and mitigated and has therefore closed some risks (#4, #8, #10, #13) mostly associated with the previous SI PM/Lead Analyst. IV&V will continue to monitor for the residual effects of these and other risks that have resulted in a sub-optimal discovery phase as these could, if not managed well, have long-term impacts to the quality of the project and project deliverables.

IV&V remains concerned over SME participation and the related impact on user adoption as well as the effects of SI staff turnover. PCG will continue to monitor these and related risks in future reporting periods to validate that the BHA's expectations are met.

IV&V has opened a new observation (#20) regarding the lack of a clear, disciplined risk management process due to risk log inconsistencies as well as a Risk Management Plan that offers few process details to ensure that risks are identified, tracked and mitigated on a timely basis.

IV&V Findings and Recommendations

Vendor Project Management, cont'd

Key Findings	Criticality Rating
• Non-agile (or unclear) SDLC (#1)	L
• Long Iteration cycles (#2)	L
• Lack of attention to process improvement (#3)	M
• Late-game analysis of requirements awaiting details from external sources (#5)	L
• SI does not plan to assist with identifying/tracking pain points (#6)	M
• SI does not plan to fully log/track out-of-scope requirements (#15)	L
• BHA SME's competing priorities could hinder their ability to effectively complete project tasks (#18)	L

Best Practices
<ul style="list-style-type: none"> • Executive stakeholder buy-in, participation and support continue to exist throughout the Project • The Project Management Plan is developed, maintained, and followed throughout the Project • Project reporting clearly communicate project status to the project management team and key stakeholders

Recommendations	Progress
• Request project methodology clarification and agreement on strategic application of Agile principles	In-progress
• Request SI address risks associated with longer iterations/sprints	In-progress
• Agree on best utilization of pain points list	Not started
• Request late game analysis on a select list of requirements awaiting details from external sources	Not started
• Request the SI track out of scope requirements	Not started
• Monitor BHA SME capacity and communicate expectations clearly	In-progress

IV&V Findings and Recommendations

Vendor Project Management Findings Discussion, cont'd.

Non-agile (or unclear) SDLC

The SI is pursuing what they call a 'WaterScrumFall' methodology, which seems to be a mixture of Agile and waterfall methods however, there seems to be some confusion over which aspects of Agile the SI will employ.

The BHA's stated project objectives include a desire for rapid development, interactive/collaborative design (focus on the user), adaptability to change, predictable delivery and schedules, and short sprint cycles. There are several benefits to utilizing agile methods, typically:

High product quality	Greater transparency
Higher customer satisfaction	Early and predictable delivery
Increased project control	Allows for change (embraces change)
Reduced risks (better risk management)	Focuses on business value
Faster ROI	Focuses on users
Increased stakeholder engagement	Identifies problems early

Failure to leverage aspects of Agile could lead to a loss in some or all of these benefits. Additionally, failure to provide the Project with a clear, consistent message regarding the Project's methodology can create confusion and frustration for BHA leadership and other members of the team as well as make it difficult for leadership to plan for future activities. Other concerns regarding WaterScrumFall include long iteration cycles (initially 8-14 weeks, now 6 weeks), when 2-3 weeks are typical for most Agile projects.

Though the specific requirement for Agile has been removed from the executed BHA/RSM contract, IV&V recommends BHA request a meeting with the SI (as well as methodology documentation) to discuss, clarify, and agree upon a project methodology and seek to apply Agile principles to the project, as appropriate. Once an agreement is documented and agreed upon, IV&V will continue to monitor to validate that the BHA's expectations are met.

IV&V Findings and Recommendations

Vendor Project Management Discussion, cont'd.

Other SDLC Risks

In general, the SI has demonstrated a good deal of knowledge of BHA business processes and has effectively leveraged their knowledge of similar projects from other states as well as the Dynamics CRM platform to speed analysis discussions. IV&V remains concerned with analysis techniques that seem to lack depth and avoid delving into opportunities for process improvement, which could lead to a 'to-be' design that simply automates existing processes rather than improve them. The discovery phase is a prime opportunity for capturing worker pain points and process improvements as well as out-of-scope business needs, all the while stimulating SME/user buy-in and adoption. Now that discovery is complete and user stories are scheduled for approval, some of these opportunities have been lost, however, BHA has indicated that individual SI analyst efforts during user story approval seems to have made up for some of the lack of analysis depth during discovery. IV&V will continue to monitor impacts to the quality of user stories, user adoption, and system design.

IV&V Findings and Recommendations

Requirements Management

Key Findings	Criticality Rating
<ul style="list-style-type: none"> Lack of good TFS governance (#20) <i>(New risk!)</i> 	L
<ul style="list-style-type: none"> Tracking of requirement elaborations (#14) 	L

Best Practices	Recommendations	Progress
<ul style="list-style-type: none"> The RTM includes traceability throughout design, code, and test phases Analysis is performed to verify that the system requirements meet federal and state regulations, requirements and objectives Major stakeholders and users are consulted and involved in the activities related to system functionality and the user interface 	<ul style="list-style-type: none"> Request SI provide better guidance in advance for BHA project activities 	Complete
	<ul style="list-style-type: none"> Request SI develop effective TFS governance and engage TFS experts to assist 	Not started
	<ul style="list-style-type: none"> Request SI define and employ a process for requirement elaboration tracking and approval 	Not started

IV&V Findings and Recommendations

Requirements Management Discussion

User story approval process • Requirement elaborations

IV&V remains concerned that the SI's TFS governance has not been clearly established. Failure to establish effective TFS governance can lead to ineffective/inefficient use of TFS throughout the project and poor requirements management. Reactive changes to TFS governance, when weaknesses are realized, can incur significant rework and cause confusion amongst the project team.

IV&V also remains concerned that requirements elaboration (i.e. the formalization of scope changes based on agreements between the SI and BHA) is not currently tracked in TFS. TFS governance is slated to be documented in the Configuration Management Plan which is currently being developed by the SI. IV&V will review this deliverable once it's available and continue to monitor for efficient, well planned requirements management and expert use of TFS.

IV&V Findings and Recommendations

Design and Development

Key Findings	Criticality Rating
<ul style="list-style-type: none"> Use of accelerator (#12) 	L
<ul style="list-style-type: none"> Architecture Blueprint deficiencies (#21) (<i>New observation!</i>) 	M

Best Practices	Recommendations	Progress
<ul style="list-style-type: none"> The system design is viable, based on scalability, maintainability, completeness and efficiency The proposed technical architecture is able to scale up to meet future workload and performance criteria The technical architecture is easily adaptable to new or changes in application requirements The solution supports federal MITA-alignment requirements 	<ul style="list-style-type: none"> Request the SI identify strategies and activities to mitigate typical issues/problems/risks associated with the use of accelerators. 	Not started
	<ul style="list-style-type: none"> Recommend BHA ask the SI to document sufficient design details in the architectural blueprint document and ask that content focus on what the SI will do as opposed to what the products/platform can do. 	Not started

IV&V Findings and Recommendations

Design and Development Discussion

Use of accelerator

IV&V has some initial concerns with the SI's use of their accelerator (Dynamics CRM custom screens/workflows/code repurposed from the SI's work in other states). Primarily, it appears that the SI has at times been remiss to suggest design concepts that don't align with the existing functionality of their accelerator. Failure to optimize the system to meet BHA specific needs can lead to a system that is less than optimal/productive and require BHA users to employ work arounds and lengthy processes to achieve system tasks. 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:

- Added complexity
- Interactions with accelerator could introduce bugs
- Bugs could occur that are not easy to track down because they're buried in the complex functionality of the accelerator
- Removal of any component that's not needed can cause unforeseen interactions or complications (i.e. may break other things)

Recommend BHA request the SI identify strategies and activities to mitigate typical issues/problems/risks associated with the use of accelerators. Once strategies are identified, IV&V will continue to monitor throughout the development phase their effectiveness and identify instances where this risk has been realized.

IV&V reviewed the SI's draft Architecture Blueprint deliverable during this reporting period and observed that the document seems to be missing key information. Specific observations have been documented on PCG's Document Comment Form (DCF) that was delivered to DOH on 2/23/18. IV&V looks forward to reviewing the SI's updated deliverable that will address our concerns.

IV&V Findings and Recommendations

Organizational Change Management

Key Findings	Criticality Rating
<ul style="list-style-type: none">Minimal concern for User adoption (buy-in) (#7)	M
<ul style="list-style-type: none">Inadequate effort to elicit / track pain points (#6)	L

Best Practices	Recommendations	Progress
<ul style="list-style-type: none">An Organizational Change Management (OCM) Plan is developedThe OCM Plan addresses the integration of individual change management and organizational change management to ensure the achievement of business results.The OCM Plan includes steps to assess the level of change that will be required to determine the appropriate change management techniques that will be required.	<ul style="list-style-type: none">Request the SI adopt a general user adoption strategy (not a formal deliverable)Agree on a process for how the SI will utilize the pain point list created by BHA	<ul style="list-style-type: none">Not startedNot started

IV&V Findings and Recommendations

Organizational Change Management Discussion

User adoption (buy-in)

IV&V continues to be concerned that the SI seems to lack a strategy to support user adoption. Agile methods typically focus on solving real problems and employ methods to allow the users to provide timely (typically with shorter sprints) feedback to ensure that the business problems are being solved.

The state has initiated the practice of tracking pain points. However, the process for how the SI will utilize this list needs to be 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. Failure to track pain points and business problems can lead to a final product that fails to provide maximum value to the users.

The above risks combined with other related risks (#3 - Process Improvement, #11 – SME Participation) could negatively impact the overall user adoption and OCM strategy and, in the end, lead to a reduction of ongoing project funding, a weakened SI reputation, and public scrutiny.

Recommend BHA request the SI adopt a general user adoption strategy (not a formal deliverable) as well as an approach to leverage SME pain points and closely track business pain points throughout the project. IVV also recommends that the project's OCM strategy address/incorporate pain points to show users that the system is solving real business problems which should lead to increased adoption rates.




Appendix A – Findings and Recommendations Log

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
- See Criticality Ratings provided below:



**Findings
Recommendations Log**

Criticality Rating	Definition
	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.
	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.
	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 (2/5/18 – 2/12/18)
2. Budget/Deliverable discussion meetings
3. BHA IV&V Monthly Report review meeting
4. IV&V Deliverables Review meetings
5. BHA/RSM IV&V Monthly Report review meeting
6. Data Migration meeting
7. Schedule and Scope Planning meetings
8. Design/Solution/Estimate Review Meetings
9. RSM project management/IV&V touch base meeting
10. Project Steering Committee meeting

Artifacts reviewed during the reporting period:

1. Draft SI Project Management Plan and Testing Strategy
2. Updated Project Management Plan and Testing Strategy
3. Revised SI deliverables schedule
4. SI multi-release worksheet
5. DOH deliverables, year 1 – 3
6. Executed SI contract
7. SI Architectural Blueprint deliverable

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Id	Identified Date	Summary	Observation	Significance	Recommendation	Updates	Process Area	Type	Priority	Status	Closure Reason	Iteration	Risk Owner
BHA IV&V Findings Log													
1	09/01/17	Non-agile (or unclear) SDLC	The SI has initially provided limited details of their project methodology, "WaterScrumFall", which seems to be a mixture of Agile and waterfall methods and results in confusion over which aspects of Agile the SI will employ.	The BHA's stated project objectives include a desire for rapid development, interactive/collaborative design (focus on the user), adaptability to change, predictable delivery and schedules, and short sprint cycles. There are several benefits to utilizing agile methods, typically: <ul style="list-style-type: none"> • High product quality • Higher customer satisfaction • Increased project control • Reduced risks (better risk management) • Faster ROI • Increased stakeholder engagement • Greater transparency • Early and predictable delivery • Allows for and embraces change • Focuses on business value • Focuses on users • Identifies problems early If Agile methods are not leveraged, or not leveraged effectively, it could lead to a loss in some or all of these benefits. Additionally, without a clear, consistent message (or documentation) regarding the Project's methodology can result in confusion and frustration for customer leadership and other members of the team and can make it difficult for leadership to plan for future activities.	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. Recommend SI clearly communicate plans and details of upcoming activities before the activities begin so that BHA has time to prepare and plan their resources beforehand. IVV will continue to monitor to validate that the BHA's expectations are met.	3/2/18: BHA has indicated that they have removed the requirement for an Agile implementation from the finalized RSM/BHA project contract. The word "Agile" has been replaced with "Iterative" throughout. The SI has provided additional methodology details which has given IV&V a better understanding of the SI's methodology, however, the SI seems to lack comprehensive methodology documentation so IV&V will continue to monitor to assure desired benefits of Agile are realized. 2/23/18: Unclear if progress has been made towards mitigating this risk. While the SI has produced documents such as the PMP and the Architectural Blueprint and communicated high-level plans, it still seems unclear (or has not been clearly stated) as to which elements of Agile are being employed and which SDLC activities/processes/deliverables are more Waterfall-like. This can make it difficult for IV&V and BHA to evaluate and approve deliverables (including user stories). Without a clear understanding of the methodology, how future activities will be performed, and the boundaries the SI will enforce (without a paid change order), it can be difficult to judge the adequacy of deliverables as well as other SI project activities.	SI Project Management	Risk	Low	Open		0	
2	09/01/17	Long 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.	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 rationale for 6-week iterations as well as their intent to perform mid-sprint demonstrations of functionality. IV&V will continue to monitor. 2/21/18: The SI's updated project plan shows 6-week iterations (reduced from 8-14 week iterations).	SI Project Management	Risk	Low	Open		0	
3	09/01/17	Process improvement	The SI has at times seems remiss to illicit opportunities for process improvement.	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". Failure to effectively capture requirements for process improvement can lead to poor quality analysis/discovery/design. Failure to identify process improvement opportunities could lead to the SI developing a system that simply automates their existing processes without improving them.	IV&V suggests that there are likely probing questions that can be asked on a limited basis to help identify valuable opportunities for process improvement. IV&V recommends that BHA: 1. Express these concerns to the SI to set expectations about performing some level of process improvement discovery and analysis. 2. Request the SI provide greater detail around their to-be analysis methods 3. Request that the SI provide 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. 4. Request demos from Ohio, Indiana, and/or Washington (or other similar BHA Dynamics CRM implementations) to better understand and articulate process improvements Dynamics CRM can support. 5. Request the SI illicit and maintain a list of prioritized business problems, pain points, and improvement opportunities that are reviewed with SMEs regularly to ensure the project is solving the right problems/pain points and taking advantage of opportunities to improve processes and business practices as a result of adoption of their new CRM system's capabilities. IVV will continue to monitor for instances where process improvements should be implemented and validate that the BHA's expectations are met.	3/1/18: 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. 2/27/18: BHA has contracted BHA in a separate effort to develop a calendar (calculator). BHA has indicated that initial SI analysis seems to continue to lack appropriate depth. 2/16/18: BHA detailed related concerns in an email to RSM. RSM replied with assurances that there will "always be follow on sessions" and that they "will seek for more collaboration in the future". 1/25/18: Now that discovery is complete and user stories are scheduled for approval, many opportunities to capture process improvements from SMEs have been lost. IV&V will monitor whether any attempts are made to elicit process improvements during future activities (e.g., sprint demos and UAT). 9/1/17: SI continues to avoid questioning the necessity of existing processes (i.e. asking the "why" questions around existing processes, asking for "wish list" items from the SMEs) to identify potential process improvements.	SI Project Management	Risk	Medium	Open		0	

4	09/01/17	Visual tools	The SI PM/Lead Analyst has demonstrated a general reluctance to utilize visual tools (e.g. whiteboard diagramming, Dynamics CRM demos, etc.) that would help to facilitate to-be system design discussions and user involvement. The few times the SI has utilized visual tools has usually been in response to workshop participants request.	Failure to effectively engage stakeholders can increase the risk of poor discovery (and schedule) risk and unmet user needs. Typically, most users/SMEs are visual and may not be able to articulate complex as-is processes and to-be designs based on verbal walk-throughs alone. Once displayed visually SMEs are better able to identify what will and will not work. If the SI cannot effectively elicit optimal design choices from the user then the system will require late game rework, surprises, and repeats of design workshops	Request that the SI employ more visual methods during discovery and actively demonstrate key features of Dynamics CRM. IVV will continue to monitor to validate that the BHA's expectations are met.	2/24/18: IV&V has observed BHA requesting use of visual tools and the SI has responded. 10/2/17: The SI has recommended an xRM site for BHA to review as an alternative to using the CRM sandbox to assist with 'to-be' design discussions. 9/1/17: It's becoming clear that their preferred method is verbal walk-through of analysis discussions. SMEs have begun volunteering to whiteboard complex processes but sometimes have felt the SI would have preferred they hadn't. SMEs have complained that most discovery sessions are "boring" and unproductive. However, sessions where the SI was willing to show the Dynamics CRM interface (and the SI's pre-built accelerator) seemed much more engaging for the SMEs and seemed to illicit more productive 'to-be' discussions.	SI Project Management	Risk	Medium	Closed	SI seems more willing to utilize visual tools.	0	
5	09/01/17	Late game analysis	Appears the SI does not perform late game analysis of requirements, preferring to define all user stories upfront until other dependencies are known. For example, instead of putting the DHS interface requirement specification on hold until it's clear whether DHS will provide a web service, the SI is now defining specifications for a manual import (non-web service).	One of the primary benefits of an Agile approach is that requirements that are not ready to be fully defined (e.g. requirements that are awaiting outside agency information/details) can be addressed later without a loss of productivity. An unwillingness to define requirements at a later date may increase the risk that the SI develops features that are not needed or no longer meet the needs of the users.	Recommend BHA and the SI come to agreement on a limited list of requirements that will be defined at a later date. Recommend the SI avoid spending time, where it makes sense, on requirements with external dependencies. Once an agreement is reached, IVV will continue to monitor to validate that the BHA's expectations are met.		SI Project Management	Risk	Low	Open		0	
6	09/01/17	Pain points	SI currently does not track or effectively utilize business process pain points.	Agile methods typically focus on solving real problems and employ methods to allow the users to provide timely (typically with shorter sprints) feedback to ensure that the business problems are being solved. Tracking pain points can be an effective OCM strategy for user adoption and buy-in by providing visibility to the users of problems the system is solving as well as showing them traceability of pain points to system features during sprint demos. Failure to track pain points and business problems can lead to a final product that fails to provide maximum value to the users. Failure to succinctly document, track, and reference business process pain points in sprint demos could lead to reduced user adoption and executive buy-in, support, and satisfaction. In the end, this could lead to a reduction of ongoing project funding, a weakened SI reputation, and public scrutiny.	Recommend BHA request the SI develop an approach to elicit pain points from SMEs and closely track business pain points, specifically ones that can be addressed by the system. IVV also recommends that the project's OCM strategy incorporate these pain points to show users that the system is solving real business problems and therefore increase adoption rates. Once an agreement is reached, IVV will continue to monitor to validate that the BHA's expectations are met.	3/2/18: SI has stated that tracking pain points is out of scope and that pain points have been addressed within the user stories. IV&V will continue to recommend, at minimum, the project maintain a short list of (mostly high-level) business pain points. 1/25/18: BHA has assumed responsibility for tracking pain points. The process for how the SI will utilize this list needs to be identified and monitored.	SI Project Management	Risk	Medium	Open		0	
7	09/01/17	Minimal concern for user adoption (buy-in)	The SI's user adoption tactics seem minimally effective and appears to lack a general user adoption strategy.	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.	Recommend the SI adopt a general user adoption strategy (not a formal deliverable). Recommend the SI implement visual tools (whiteboard sessions and CRM demo's) that get users excited about the system as well as increase understanding and prepare the users for system implementation. Typically, the better users/SMEs understand the benefits of Dynamics CRM (base functionality) and visually see how their system could look, the greater the buy-in as excitement/momentum builds for what they've seen. Recommend the SI identify, log, and articulate real business problems the project/system will solve and trace them back to system features. IVV will continue to monitor to validate that the BHA's expectations are met.	3/7/18: BHA indicated that RSM subcontractor met with them recently to address OCM. 3/2/18: The SI view seems to be that this risk should be addressed as part of OCM which is outside the scope of their contract. IV&V has explained that opportunities to increase user adoption can occur throughout the SDLC and the SI should take advantage of those opportunities whenever possible as part of good SDLC practices. 2/21/18: SI has released a new plan and presented to BHA a high-level strategy that seems to address some elements of user adoption. The IV&V team will continue to monitor this risk in future reporting periods.	Organizational Change Management	Risk	Medium	Open		0	
8	09/01/17	Lack of receptiveness	IV&V has observed the SI PM/Lead Analyst has not been receptive to questions from the BHA PM, SMEs, and IV&V, discouraging participation during discovery and other sessions.	Effective meeting facilitation requires being open to questions and suggestions from the attendees, while keeping the meeting on track. If participation is not encouraged, user buy-in and adoption of the system is at risk.	Recommend BHA request SI address this behavior at a management level and track progress as part of separate but regular engagement manager meetings with BHA. IV&V will continue to monitor to validate that the BHA's expectations are met.	2/15/18: SI has added 3 PM resources to the project and shifted the. Seems Lead Analyst responsibilities have shifted to another team member. 1/22/18: SI announced that its PM/Lead Analyst is leaving the SI Firm.	SI Project Management	Risk	Medium	Closed	IV&V has not observed lack of receptiveness since the departure of PM/Lead analyst.	0	
10	09/01/17	Lack of preparation	SI PM/Lead Analyst, at times, seems to lack preparation for discovery sessions and other status meetings. For example, BHA has expressed frustration with the SI when asked questions that are clearly contained in the process flows provided by BHA to the SI well ahead of discovery sessions. IV&V has identified instances of meeting schedule confusion, late meeting agenda's, and a general lack of meeting productivity.	Lack of good preparation for SI meetings with clients can create a reluctance among BHA attendees to attend and/or participate. This can also produce a general lack of confidence in the SI to achieve project objectives which can negatively impact user adoption.	Recommend SI review and prepare questions based on process flows before discovery sessions. Recommend BHA leadership address this with SI engagement manager and consider adding the topic of "project management effectiveness" as a regular project status meeting agenda item. IV&V will continue to monitor to validate that the BHA's expectations are met.	2/15/18: SI added 3 PM resources to the project and shifted the Lead Analyst responsibilities to another team member. 1/22/18: SI announced that its PM/Lead Analyst is leaving the SI Firm.	SI Project Management	Risk	Low	Closed	IV&V has not observed lack of preparation since the departure of PM/Lead analyst.	0	

11	09/01/17	SME participation	At times, key SMEs have been absent from discovery meetings. Some meetings have ended abruptly when the SI and BHA realize the right SMEs have not shown up. At times SMEs seem to lack a sense of urgency or understanding around full participation and the value of attending meetings in person.	Failure to ensure the right SMEs are in the room for a discovery session can cause project delays, unproductive meetings, and frustration on the part of SMEs that have attended. Lack of full SME participation could lead to inaccurate requirements gathering and incomplete/inaccurate user stories and could also negatively impact user adoption.	Recommend the SI make efforts to conduct meetings in manner that engages the SMEs, encourages participation by silent attendees, and utilizes visual techniques to stimulate interest. This may also include providing clear meeting agendas, meeting purpose statements, meeting type (whiteboard session, system demo, material review), lists of materials to bring, and calling out key participants in their invites. Suggest the project PM's reschedule meetings when key SMEs are not able to attend. Recommend BHA provide clear guidance to SMEs regarding the importance of meeting attendance and the preference for attending in person (especially if they are a key participant). IV&V will continue to monitor to validate that the BHA's expectations are met.	3/2/18: BHA seems to have addressed part of this risk as the correct SME's seem to be in attendance. However, some SME's continue to prefer to call-in to meetings instead of attending in-person. IV&V has observed that some SME's call into meetings and provide little to no input. IV&V will continue to monitor for full participation including SME's in-person attendance to project meetings.	SI Project Management	Risk	Low	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.	Failure to optimize the system to meet BHA specific needs can lead to a system that is less than optimal/productive and require BHA users to employ work arounds and lengthy processes to achieve simple system tasks. 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)	Recommend BHA request the SI identify strategies and activities to mitigate typical issues/problems/risks associated with the use of accelerators. Recommend BHA request SI base design decision on what's best suited for BHA and not on what functionality already exists in the accelerator (see Process Improvement risk #3). Once strategies are identified, IV&V will continue to monitor throughout the development phase their effectiveness and identify instances where this risk have been realized.	2/5/18: SI has stated that they have not seen the same accelerator risks that IV&V has described in this risk. BHA leadership has stated that they have seen these risks in other state accelerator-based projects.	Design & Development	Risk	Low	Open		0	
13	09/02/17	User story approval process	There seems to be some initial confusion around the process for user story management and approval. SI guidance around these processes seems reactionary instead of planned. In addition, seems TFS governance has not been clearly thought through or clearly established.	Continued confusion around user story management and approval and a lack of planned requirements management can lead to inefficient user story review, delayed user story approval, and unnecessary rework for BHA resources whose capacity is already constrained. Failure to establish effective TFS governance can lead to ineffective/inefficient use of TFS and poor requirement and user story management. Reactive changes to TFS governance, when weakness are realized, can incur significant rework and cause further confusion. In addition, the RFP requires that, "The SI firm shall utilize the fullest capabilities of Visual Studio Online (referenced throughout as Team Foundation Services, or TFS) for solution Application Lifecycle Management (ALM), in addition to Visual Studio for development purposes." It also requires that, "The SI firm shall engage TFS experts as needed to assist with establishing TFS governance and best practices for the project."	Recommend BHA request SI engage TFS experts who can provide technical configuration as well as guidance on TFS best practices. Suggest SI document best practices (for later insertion into the CMP) as soon as possible to alleviate any additional confusion around TFS governance. Once better governance has been solidified, IV&V will continue to monitor to validate that the BHA's expectations are met.	2/26/18: Closing out this finding as user story approval is nearing completion. We created another risk (#20) that focuses on primarily on TFS governance. 1/30/18: The SI and BHA have made some progress towards improving and defining the user story approval process. IV&V will continue to monitor for well-defined requirements management processes going forward. 1/25/18: RFP requires TFS governance to be documented in the Configuration Management Plan which is currently being developed by the SI. However, IV&V has logged a separate risk that some deliverable content, like TFS governance, is not being provided at a point in the project when it is urgently needed.	SI Project Management	Risk	Low	Closed	User story approval is coming to an end and the process seems to be working.	0	
14	09/03/17	Requirement elaborations	It is unclear if SI is tracking requirement elaborations.	Failure to effectively track requirement elaborations can cause requirement (scope) disagreements late into the project when details of what was agreed upon between BHA and the SI is forgotten. The SI may refuse to implement functionality because the scope was never clarified and documented which could lead to loss of functionality at rollout.	Recommend BHA request SI define and employ a process for requirement elaboration tracking and approval in TFS. Once an agreement is reached, IVV will continue to monitor to validate that the BHA's expectations are met.	1/25/18: SI has stated that they are tracking requirements elaborations, but it seems they are doing it outside of TFS. The IV&V team needs more information on how this is occurring.	Requirements Management	Risk	Low	Open		0	
15	09/04/17	Tracking out of scope requirements	The SI logging of out-of-scope requirements, improvement opportunities, and user stories is below BHA expectations.	Failure to capture out-of-scope items at the time of discovery could be a lost opportunity to capture what was identified and discussed. Out-of-scope features could then be forgotten or lost along the way as well as valuable notes from those point in time discussions. The state could be left spending valuable time/money at a later point to rediscover requirement, user stories, features, and opportunities for improvement. This practice can actually be beneficial to the SI as it inspires follow-on work for the incumbent SI.	Recommend SI capture out-of-scope requirements and/or user stories as the opportunity arises (e.g. if identified in discovery, sprint demos, UAT, etc.) so these are not lost or forgotten. Recommend including details in TFS of the discussion regarding these items so discussions don't have to be repeated at a later date. Once an agreement is reached, IVV will continue to monitor to validate that the BHA's expectations are met.	3/1/18: SI has stated that some of the user stories they created were later realized to be out-of-scope and will status these in TFS as "deferred". However, they feel like tracking out-of-scope requirements is outside the scope of the contract and will not log out-of-scope requirements when SME's mention them as part of other SI/SME interactions.	SI Project Management	Risk	Low	Open		0	
16	01/23/18	Deliverable review and acceptance process seems unclear	SI has delivered the Project 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 delivered and that BHA has offered little to no response. To date, the SI has not conducted review sessions of these deliverables with BHA stakeholders.	The RFP states, "All deliverables require state signoff as 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 approach and process may increase the risk of negative impact to the budget and schedule, not to mention BHA stakeholder frustration.	Recommend BHA request that SI clarify and follow an agreed upon acceptance and sign-off process. Process 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. Once an agreement is reached, IV&V will continue to monitor to validate that the BHA's expectations are met.	3/2/18: SI has provided some details to clarify the deliverable review and acceptance process and has stated they will continue to refine and document this process.	SI Project Management	Observation	Low	Open		0	

17	01/23/18	SI resource turnover	On 1/22/18, the SI announced that its PM/Lead Analyst is leaving the SI Firm. Concern has been raised by BHA leadership and IV&V that key project discovery, analysis, and design details will be lost. In addition, on 10/30/18 the SI lost a subcontracted project manager/assistant and their replacement has been delayed, currently scheduled for 2/5/18.	Loss of key project discovery, analysis, and design details could negatively impact the productivity of SI efforts and the project schedule. The risk of an ineffective knowledge transfer from the departing PM/Lead Business Analyst to the SI's new PM can still be realized despite the SI's best efforts. While the remaining team that participated in discovery remains largely intact, it is unclear how long it will take for the incoming PM to get up to speed and equal the same level of knowledge/productivity that the outgoing PM (who spent 100's of hours leading the discovery effort) provided. The SI has yet to identify mitigation strategies (e.g. schedule impacts) to compensate for the loss of this key resource.	IV&V recommends that BHA: <ul style="list-style-type: none"> Request that key resources become more involved in guiding the design and implementation. Request that RSM increase the level of participation of the Engagement Manager on the project to address the loss of the PM's tacit knowledge and work more closely with the remaining SI team. Request the PM to support the knowledge transfer process (e.g., document tacit knowledge, implementation considerations, lessons learned, documentation of IP, a Life course implementation write up, etc.) Request the SI to create a log of transition activities for BHA review and comment. Log to include a list of artifacts reviewed, meetings (with attendees/topics), and other activities. Request that incoming subcontracted (DataHouse) PM begin familiarizing herself with the project before her official start date on 2/5. <p>As transition activities progress, IV&V will continue to monitor to validate that the BHA's expectations are met.</p>	3/2/18: SI has agreed to provide clarification of roles and responsibilities of their project team. 2/21/18: Engagement Manager seems to have an increased involvement in Lead Analyst and Lead Architect activities. SI has replaced PM resources that have left the project and involved their PMO who will assist on a limited basis. Lead Analyst responsibilities have shifted to another team member. Recommend SI clarify roles of their project team.	SI Project Management	Risk	Low	Open		0	
18	09/01/17	BHA SME's competing priorities could hinder their ability to effectively complete project tasks	Some state staff have at times been constrained by other duties and have shown some resistance to participate in project activities. SME attendance and participation in project meeting has been waning at times, requiring meetings to be rescheduled.	Lack of participation by SMEs can negatively impact the overall quality of discovery, analysis, and design and could negatively impact the project schedule	Recommend BHA leadership actively encourage and direct participation by BHA staff as well as assist them with prioritizing their duties to accommodate full participation in the project. IV&V will continue to monitor concerns over constraint stakeholder capacity throughout the project.	10/2/17: BHA leadership has addressed this issue and attendance to project meetings has improved. However, participation still seems to be lacking. Many times, attendees prefer to call instead of attending in person. In person attendees are typically much more engaged than those who call in. Many attendees who call-in offer little to no input.	Other	Risk	Low	Open		0	
19	09/01/17	Federal funding risk	Ability to access enhanced federal funding as initially planned is at risk due to State Medicaid Agency delays in completing its MITA State Self-Assessment (SS-A) prior to the submittal of DOH's IAPD.	Delays in securing enhanced funding has delayed system development. Inability to claim federal funds could negatively impact the project budget, scope and schedule.	Recommend BHA continue to work closely with DHS to pursue available funding options. IV&V will continue to monitor progress.	2/22/18: Approach to draw-down of federal funding was discussed in the project steering committee meeting. DHS plans to submit a PAPD, with which DOH's IAPD would be aligned. According to DHS, work on the PAPD is pending receipt of DOH's IAPD. In the meantime, DOH is also pursuing 50/50 admin claiming to support the project. This will require an update to DHS' Cost Allocation Plan (to allow DOH's project costs to be submitted on the CMS-64 form).	Other	Risk	Medium	Open		0	
20	2/23/18	Lack of good TFS governance	Seems the SI's TFS governance has not been clearly thought through or clearly established.	Failure to establish effective TFS governance can lead to ineffective/inefficient use of TFS and poor requirements management. Reactive changes to TFS governance, when weaknesses are realized, can incur significant rework and cause further confusion. In addition, the RFP requires that, "The SI firm shall utilize the fullest capabilities of Visual Studio Online (referenced throughout as Team Foundation Services, or TFS) for solution Application Lifecycle Management (ALM), in addition to Visual Studio for development purposes." It also requires that, "The SI firm shall engage TFS experts as needed to assist with establishing TFS governance and best practices for the project."	Recommend BHA request SI engage TFS experts who can provide technical configuration as well as guidance on TFS best practices. Suggest SI document TFS governance and best practices (for later insertion into the CMP) as soon as possible to alleviate any additional confusion around TFS governance. Once better governance has been solidified, IV&V will continue to monitor to validate that the BHA's expectations are met.	2/26/18: This finding is a breakout of a closed finding (#13) that focuses on TFS governance. 2/23/18: RFP requires TFS governance to be documented in the Configuration Management Plan which is currently being developed by the SI.	Requirements Management	Risk	Low	Open		0	
21	2/23/18	Architecture blueprint document deficiencies	Initial draft of architecture blueprint document appears to be missing key information.	The architectural blueprint document provides key system design 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.	Recommend BHA ask the SI to document design details, captured during design and other sessions, in the architectural blueprint document and focus on what the SI will do as opposed to what the products can do. Best practice, even in full Agile projects, is to document (in some detail) processes or components/modules that are expected or know to be the most complex.	3/7/18: With the environment buildout beginning shortly and development currently slated to begin on 3/12, IV&V is concerned with the lack of environment buildout details included in this document. 2/23/18: IV&V provided comments to BHA via DCF (document comment form) and awaits BHA/SI responses.	Design & Development	Observation	Medium	Open		0	
22	2/23/18	Unclear risk management processes	The current SI risk management plan provides few details of the risk management process. Though weekly status reports contain a slide for risk there has been little to no updates to this slide for some time now. During the status meeting there is little to no discussion around risks. Also, the risk slide and the RSM risk log seem out of sync. Additionally, SI has chosen to provide little to no response to the risks IV&V has identified, the majority of which are within the SI's control to mitigate.	Lack of attention to risk management could reduce overall project quality and health and produce unexpected problems going forward. Unexpected problems are typically more difficult to manage, are more labor intensive and costlier to manage than risks that are carefully managed.	Recommend BHA request SI attention to risk management going forward and respond to identified risks. Suggest SI and BHA agree on a process to ensure comprehensive risk tracking and mitigation and provide related updates to the project risk management plan. Suggest BHA request that the SI respond to risks identified by IV&V and other external sources (e.g. ETS).	3/2/18: SI is in the process of shoring up risk management processes including establishing and managing a formal risk repository.	SI Project Management	Observation	Low	Open		0	