



OFFICE OF THE STATE AUDITOR



July 3, 2019

DIANNE E. RAY, CPA
—
STATE AUDITOR

HB18-1421 EVALUATION REPORT: PROCUREMENT PROCESS FOR MAJOR INFORMATION TECHNOLOGY PROJECTS – STATUS REPORT

Members of the Legislative Audit Committee:

Attached is the status report from the Governor's Office of Information Technology (OIT), on the implementation of recommendations in the Office of the State Auditor's (OSA) *HB18-1421 Evaluation Report: Procurement Process for Major Information Technology Projects Performance Evaluation*.

As part of the status report process, we requested and received supporting documentation for each recommendation that the OIT reported as having been implemented. Specifically, we reviewed the following documentation:

- For recommendation 2D, we reviewed OIT's Project Lifecycle Methodology and Governance Policy (POL 200-01) that describes how to effectively, efficiently, and consistently deliver projects that meet technical standards and business goals and objectives. We also reviewed the Lessons Learned template document, which is a process intended to help share knowledge gained from experience, so that teams can repeat desirable aspects and avoid the undesirable aspects of the project delivery process.
- For recommendations 4A - 4E, we reviewed documentation of the Risk Assessment process within the Enterprise Portfolio and Project Management Tool.

OFFICE OF THE STATE AUDITOR
1525 SHERMAN STREET
7TH FLOOR
DENVER, COLORADO
80203

303.869.2800

- For recommendation 5, we reviewed a memo released by the Chief Customer Officer and Deputy Chief Technology Officer to OIT leadership to explain the role of the Project Manager, including the responsibility to be involved with vendors during the project development and delivery process and to leadership and ensure continuous alignment with the assigned project team.

Based on our review, the supporting documentation substantiates OIT's reported implementation status.



COLORADO
**Governor's Office of
Information Technology**
Serving people serving Colorado

July 15, 2019

Dianne E. Ray, CPA
State Auditor
Colorado Office of the State Auditor
1525 Sherman St., 7th Floor
Denver, CO 80203

Dear Auditor Ray:

In response to your request, we have prepared the attached status report on the implementation status of audit recommendations contained in the HB18-1421 Evaluation Report Procurement Process for Major Information Technology Projects. The report provides a brief explanation of the actions taken by the Governor's Office of Information Technology (OIT) to implement each recommendation.

Overall, OIT has 21 recommendations to be implemented by the end of December 2019 with seven already completed. We have plans in place to complete all of the recommendations.

If you have any questions about this status report and OIT's efforts to implement the audit recommendations, please contact Jerrod Roth at 303.764.7799 or jerrod.roth@state.co.us.

Sincerely,

A handwritten signature in blue ink that reads "Theresa M. Szczurek".

Theresa M. Szczurek, Ph.D.
Chief Information Officer and Executive Director



EVALUATION RECOMMENDATION STATUS REPORT

EVALUATION NAME	<i>HB18-1421 Evaluation Report: Procurement Process for Major Information Technology Projects</i>
EVALUATION NUMBER	1811P-IT
AGENCY	Governor's Office of Information Technology
DATE OF STATUS REPORT	5/8/19

SECTION I: SUMMARY

REC. NUMBER	AGENCY'S RESPONSE	ORIGINAL IMPLEMENTATION DATE	CURRENT IMPLEMENTATION STATUS	CURRENT IMPLEMENTATION DATE
1ai	Agree	April 2019	Not Implemented	December 2019
1aii	Agree	April 2019	Not Implemented	December 2019
1aiii	Agree	April 2019	Not Implemented	December 2019
1aiv	Agree	April 2019	Not Implemented	December 2019
1av	Agree	April 2019	Not Implemented	December 2019
1b	Agree	April 2019	Not Implemented	December 2019
2a	Agree	April 2019	Not Implemented	August 2019
2b	Agree	April 2019	Not Implemented	September 2019
2c	Agree	April 2019	Not Implemented	September 2019
2d	Agree	April 2019	Implemented	March 2019
3	Agree	April 2019	Not Implemented	August 2019
4a	Agree	April 2019	Implemented	May 2019
4b	Agree	April 2019	Implemented	May 2019
4c	Agree	April 2019	Implemented	May 2019
4d	Agree	April 2019	Implemented	May 2019
4e	Agree	April 2019	Implemented	May 2019
5	Agree	April 2019	Implemented	May 2019
6	Agree	April 2019	Not Implemented	December 2019
7	Agree	April 2019	Not Implemented	December 2019
8	Agree	April 2019	Not Implemented	August 2019
9	Agree	April 2019	Not Implemented	December 2019

SECTION II: NARRATIVE DETAIL

RECOMMENDATION 1AI			
The Governor's Office of Information Technology (OIT) should create an independent review process prior to contracting for major IT projects that:			
A. Leverages an independent expert (independent expert is recommended due to the potential for conflict between OIT and agencies) at a fixed cap price to assess: <ul style="list-style-type: none"> i. The cost benefit analysis (CBA) required by OIT policy for realistic cost estimates and appropriate value/benefit calculations 			
CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION DATE	December 2019
AGENCY UPDATE			
<i>This will be implemented when we receive a request for a new Major IT project. There have been no Major IT projects requiring the assessment by an independent expert since this audit was finalized.</i>			

RECOMMENDATION 1AII			
The Governor's Office of Information Technology (OIT) should create an independent review process prior to contracting for major IT projects that:			
A. Leverages an independent expert (independent expert is recommended due to the potential for conflict between OIT and agencies) at a fixed cap price to assess: <ul style="list-style-type: none"> ii. The implementation plan to ensure project stakeholders are appropriately addressed, the change management plan is reasonably resourced and scheduled, and project risks are mitigated 			
CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION DATE	December 2019
AGENCY UPDATE			
<i>This will be implemented when we receive a request for a new Major IT project. There have been no Major IT projects requiring the assessment by an independent expert since this audit was finalized.</i>			

RECOMMENDATION 1AIII			
The Governor's Office of Information Technology (OIT) should create an independent review process prior to contracting for major IT projects that:			
A. Leverages an independent expert (independent expert is recommended due to the potential for conflict between OIT and agencies) at a fixed cap price to assess:			
iii. The project management resources planned for the project (i.e., hire an experienced project manager, use an internal resource, use a vendor resource)			
CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION	December 2019
AGENCY UPDATE			
<i>This will be implemented when we receive a request for a new Major IT project. There have been no Major IT projects onboarded since this audit was finalized.</i>			

RECOMMENDATION 1AIV			
The Governor's Office of Information Technology (OIT) should create an independent review process prior to contracting for major IT projects that:			
A. Leverages an independent expert (independent expert is recommended due to the potential for conflict between OIT and agencies) at a fixed cap price to assess:			
iv. If success criteria are appropriately defined and are measurable			
CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION	December 2019
AGENCY UPDATE			
<i>This will be implemented when we receive a request for a new Major IT project. There have been no Major IT projects requiring the assessment by an independent expert since this audit was finalized.</i>			

RECOMMENDATION 1AV			
The Governor's Office of Information Technology (OIT) should create an independent review process prior to contracting for major IT projects that:			
A. Leverages an independent expert (independent expert is recommended due to the potential for conflict between OIT and agencies) at a fixed cap price to assess:			
v. The net operating impact of the proposed change			
CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION DATE	December 2019
AGENCY UPDATE			
<i>This will be implemented when we receive a request for a new Major IT project. There have been no Major IT projects requiring the assessment by an independent expert since this audit was finalized.</i>			

RECOMMENDATION 1B			
The Governor's Office of Information Technology (OIT) should create an independent review process prior to contracting for major IT projects that:			
B. If any of the areas are found to be deficient, contracting should be delayed until such time as the Chief Information Officer (CIO) agrees that deficiencies identified by the independent expert have been addressed			
CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION DATE	December 2019
AGENCY UPDATE			
<i>This will be implemented when we receive a request for a new Major IT project. There have been no Major IT projects that have gone through the procurement process since this audit was finalized.</i>			

RECOMMENDATION 2A			
OIT should modify its Project Lifecycle Methodology and Governance Policy (POL 200-01) to include:			
A. Assessment of preliminary success criteria during the "Intake" phase			
CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION	August 2019
AGENCY UPDATE			
<i>During project Intake, the business case, size, risk assessment, and solutioning is reviewed by OIT. At this point in the Project Lifecycle, the request from the agency is not an approved project. When solution options are presented to the customer, approved, and prioritized in the agency portfolio, it then is officially a project (reference POL 200-1, para 7.1.4). OIT will adjust the Project Idea Form to include preliminary success criteria, instead of including the success criteria during the "Intake" phase, as OIT agreed to in the audit report.</i>			

RECOMMENDATION 2B			
OIT should modify its Project Lifecycle Methodology and Governance Policy (POL 200-01) to include:			
A. Final agreement of success criteria during the "Plan" phase.			
CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION DATE	September 2019
AGENCY UPDATE			
<i>POL 200-01 will be further revised to align with this recommendation.</i>			

RECOMMENDATION 2C			
OIT should modify its Project Lifecycle Methodology and Governance Policy (POL 200-01) to include:			
C. Ensuring success criteria are identified and appropriate (e.g., outcome based, measurable) in the OIT required review process (i.e., gate reviews) that occurs when projects transition from one project stage to another			
CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION DATE	September 2019
AGENCY UPDATE			
<i>POL 200-01 will be further revised to align with this recommendation.</i>			

RECOMMENDATION 2D			
OIT should modify its Project Lifecycle Methodology and Governance Policy (POL 200-01) to include:			
D. Measurement against success criteria in the “Close” phase			
CURRENT IMPLEMENTATION STATUS	Implemented	CURRENT IMPLEMENTATION DATE	March 2019
AGENCY UPDATE			
<i>POL 200-01 was updated in March 2019 to include success criteria during the Close phase. This was documented in the Lessons Learned template, which is a required Project Lifecycle Methodology deliverable for a Major IT project. The next project to undergo review with these deliverables is the DOR Electronic Sales and Use Tax project.</i>			

RECOMMENDATION 3			
OIT should modify its Independent Verification and Validation (IV&V) Policy (POL 200-03) to revise the policy statement such that IV&V is required for all major IT projects regardless of initial risk assessment and ensure that the IV&V vendor is engaged in the “Initiate” phase of the project.			
CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION DATE	August 2019
AGENCY UPDATE			
<i>POL 200-3 will be further revised to align with this recommendation.</i>			

RECOMMENDATION 4A

OIT should modify its risk assessment process to include project and procurement risk in addition to the security risk managed by the current process. Factors that should be considered for risks include, but are not limited to:

A. Alignment of project team

CURRENT IMPLEMENTATION STATUS	Implemented	CURRENT IMPLEMENTATION DATE	May 2019
--------------------------------------	-------------	------------------------------------	----------

AGENCY UPDATE

With the passage of HB12-1288 in 2012, OIT was required to perform a comprehensive sizing and risk assessment for all Major IT projects. OIT implemented a paper-based process to perform sizing and risk assessment. In 2016, this process was automated into the Clarity Portfolio and Project Management (PPM) tool that OIT uses to manage projects.

The IT Portfolio Manager (who works with the customer to perform the assessment) answers the sizing questions, as well as the architectural, security and implementation risk questions. The results generate the project sizing and risk assessment scores.

For projects sized as ‘Major’ or those that have a high implementation, security or architectural risk, the IT Portfolio Manager brings the project to an Executive Governance Gate 1 review. Subject Matter Experts at that review discuss the risk scores to determine whether they potentially have to be adjusted.

Clarity PPM was modified to conform to recommendations 4A – 4E.

RECOMMENDATION 4B

OIT should modify its risk assessment process to include project and procurement risk in addition to the security risk managed by the current process. Factors that should be considered for risks include, but are not limited to:

B. Level of integration required with new or existing systems

CURRENT IMPLEMENTATION STATUS	Implemented	CURRENT IMPLEMENTATION DATE	May 2019
--------------------------------------	-------------	------------------------------------	----------

AGENCY UPDATE

With the passage of HB12-1288 in 2012, OIT was required to perform a comprehensive sizing and risk assessment for all Major IT projects. OIT implemented a paper-based process to perform sizing and risk assessment. In 2016, this process was automated into the Clarity Portfolio and Project Management (PPM) tool that OIT uses to manage projects.

The IT Portfolio Manager (who works with the customer to perform the assessment) answers the sizing questions, as well as the architectural, security and implementation risk questions. The results generate the project sizing and risk assessment scores.

For projects sized as ‘Major’ or those that have a high implementation, security or architectural risk, the IT Portfolio Manager brings the project to an Executive Governance Gate 1 review. Subject Matter Experts at that review discuss the risk scores to determine whether they potentially have to be adjusted.

Clarity PPM was modified to conform to recommendations 4A – 4E.

RECOMMENDATION 4C			
OIT should modify its risk assessment process to include project and procurement risk in addition to the security risk managed by the current process. Factors that should be considered for risks include, but are not limited to:			
C. A solid track record demonstrated by the chosen implementation team (best practice)			
CURRENT IMPLEMENTATION STATUS	Implemented	CURRENT IMPLEMENTATION DATE	May 2019
AGENCY UPDATE			
<p><i>With the passage of HB12-1288 in 2012, OIT was required to perform a comprehensive sizing and risk assessment for all Major IT projects. OIT implemented a paper-based process to perform sizing and risk assessment. In 2016, this process was automated into the Clarity Portfolio and Project Management (PPM) tool that OIT uses to manage projects.</i></p> <p><i>The IT Portfolio Manager (who works with the customer to perform the assessment) answers the sizing questions, as well as the architectural, security and implementation risk questions. The results generate the project sizing and risk assessment scores.</i></p> <p><i>For projects sized as ‘Major’ or those that have a high implementation, security or architectural risk, the IT Portfolio Manager brings the project to an Executive Governance Gate 1 review. Subject Matter Experts at that review discuss the risk scores to determine whether they potentially have to be adjusted.</i></p> <p><i>Clarity PPM was modified to conform to recommendations 4A – 4E.</i></p>			

RECOMMENDATION 4D			
OIT should modify its risk assessment process to include project and procurement risk in addition to			
D. If the chosen solution (including all components) has a good success rate			
CURRENT IMPLEMENTATION STATUS	Implemented	CURRENT IMPLEMENTATION DATE	May 2019
AGENCY UPDATE			
<p><i>With the passage of HB12-1288 in 2012, OIT was required to perform a comprehensive sizing and risk assessment for all Major IT projects. OIT implemented a paper-based process to perform sizing and risk assessment. In 2016, this process was automated into the Clarity Portfolio and Project Management (PPM) tool that OIT uses to manage projects.</i></p> <p><i>The IT Portfolio Manager (who works with the customer to perform the assessment) answers the sizing questions, as well as the architectural, security and implementation risk questions. The results generate the project sizing and risk assessment scores.</i></p> <p><i>For projects sized as ‘Major’ or those that have a high implementation, security or architectural risk, the IT Portfolio Manager brings the project to an Executive Governance Gate 1 review. Subject Matter Experts at that review discuss the risk scores to determine whether they potentially have to be adjusted.</i></p> <p><i>Clarity PPM was modified to conform to recommendations 4A – 4E.</i></p>			

RECOMMENDATION 4E			
OIT should modify its risk assessment process to include project and procurement risk in addition to the security risk managed by the current process. Factors that should be considered for risks include, but are not limited to:			
E. Experience level of team (in-house and vendor supplied)			
CURRENT IMPLEMENTATION STATUS	Implemented	CURRENT IMPLEMENTATION DATE	May 2019
AGENCY UPDATE			
<p><i>With the passage of HB12-1288 in 2012, OIT was required to perform a comprehensive sizing and risk assessment for all Major IT projects. OIT implemented a paper-based process to perform sizing and risk assessment. In 2016, this process was automated into the Clarity Portfolio and Project Management (PPM) tool that OIT uses to manage projects.</i></p> <p><i>The IT Portfolio Manager (who works with the customer to perform the assessment) answers the sizing questions, as well as the architectural, security and implementation risk questions. The results generate the project sizing and risk assessment scores.</i></p> <p><i>For projects sized as 'Major' or those that have a high implementation, security or architectural risk, the IT Portfolio Manager brings the project to an Executive Governance Gate 1 review. Subject Matter Experts at that review discuss the risk scores to determine whether they potentially have to be adjusted.</i></p> <p><i>Clarity PPM was modified to conform to recommendations 4A – 4E.</i></p>			

RECOMMENDATION 5			
OIT should enforce the concept that a project manager (PM) should participate and lead all meetings with vendors and ensure that appropriate project team members (e.g. contracts office) are invited and engaged.			
CURRENT IMPLEMENTATION STATUS	Implemented	CURRENT IMPLEMENTATION DATE	May 2019
AGENCY UPDATE			
<p><i>An email was jointly released by the Chief Customer Officer and Deputy Chief Technology Officer to OIT leadership to explain the role of the Project Manager, to include this particular issue.</i></p>			

RECOMMENDATION 6

OIT should ensure that project managers (PMs) assigned major IT projects have experience with projects of similar scope and magnitude, and that they have enough domain expertise to manage the vendor (i.e., a PM with Enterprise Resource Planning [ERP] experience is needed to manage an ERP project). If they do not have staff that meet those qualifications, or do not have those staff resources available, they should contract for project management services with the specific expertise needed for the project.

CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION DATE	December 2019
-------------------------------	-----------------	-----------------------------	---------------

AGENCY UPDATE

This will be implemented when we receive a request for a new Major IT project. There have been no Major IT projects onboarded requiring staffing as described above since this audit was finalized.

RECOMMENDATION 7

OIT should change the RFP development process to require evaluation against desired outcomes rather than against requirements. High-level business and technical requirements should remain a part of the RFP process, but none should be written as grounds for disqualification of bidders if the desired outcome can be achieved.

CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION DATE	December 2019
-------------------------------	-----------------	-----------------------------	---------------

AGENCY UPDATE

This will be implemented when we receive a request for a new Major IT project. There have been no Major IT projects that have gone through the procurement process since this audit was finalized.

RECOMMENDATION 8

OIT should review all of their project management and procurement policies with the HRWorks project in mind, paying specific attention to POL 200-01 (detailed steps required throughout the project lifecycle) and POL 200-03 (requirements for IV&V). Further, OIT should ensure that enforcement mechanism(s) are clear and, when violated, OIT should strictly enforce these policies.

CURRENT IMPLEMENTATION STATUS	Not Implemented	CURRENT IMPLEMENTATION	August 2019
-------------------------------	-----------------	------------------------	-------------

AGENCY UPDATE

POL 200-1 and POL 200-3 will be further revised to align with this recommendation.

RECOMMENDATION 9

OIT should include decommissioning of legacy systems as part of any project that has cost efficiencies or cost effectiveness as part of the justification and ensure that all success criteria are measured in project closeout. These measurements should be presented to Joint Technology Committee (JTC) as part of the closeout procedures.

**CURRENT
IMPLEMENTATION STATUS**

Not Implemented

**CURRENT
IMPLEMENTATION**

December 2019

AGENCY UPDATE

Decommissioning of legacy systems is considered as part of project planning and documented in the Implementation Plan, which is a Plan phase deliverable. Success criteria will be reviewed and measured as project closeout through Lessons Learned. Measurements will be provided to the Joint Technology Committee with the completion of the CDHS CAI-DRCO EHR System Implementation project, estimated to be completed in December 2019.