FINAL REPORT

Office of Information Technology Follow-up Review–Progress Made Implementing Strategic Improvement Plan; Broader Issues Need Executive Attention for State to Advance Further

Report No. FR-OIT-12

Issues OPEGA noted during this review:

- Lack of executive-level governance for information technology adversely affects the State's ability to address critical information technology matters. (pg. 5)
- Disaster recovery and business continuity planning efforts have not mitigated risks associated with potential disasters or catastrophic system failures. (pg. 6)
- Data governance and analytics capabilities and practices are inconsistent across the Executive Branch and are at an immature level. (pg. 7)
- Roles, responsibilities and expectations of OIT and the agencies it serves are not clearly defined or communicated. (pg. 9)
- OIT's current funding model does not ensure sufficient resources for core IT activities common and critical to all State agencies. (pg. 10)
- OIT project managers cannot fully estimate costs on proposed projects or perform complete budget to actual cost analysis on IT projects in progress. (pg. 10)
- OIT needs to continue efforts to further mitigate IT-related risks for the State, move toward industry best practices, and improve the services it provides. (pg. 11)

August 2015

a report to the
Government Oversight Committee
from the
Office of Program Evaluation & Government Accountability
of the Maine State Legislature

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Staff
Wendy Cherubini, Senior Analyst
Matthew Kruk, Senior Analyst
Scott Farwell, Analyst
Amy Gagne, Analyst
Lucia Nixon, Analyst
Etta Connors, Administrative Secretary

Mailing Address:
82 State House Station
Augusta, Maine 04333-0082
Phone: (207) 287-1901
Fax: (207) 287-1906
Web: http://www.maine.gov/legis/opega/
Email: etta.connors@legislature.maine.gov

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Office of Program Evaluation & Government Accountability

82 State House Station • Augusta, ME • 04333-0082

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Office of Information Technology Follow-Up Review – Progress Made in Implementing Strategic Improvement Plan; Broader Issues Need Executive Attention for State to Advance Further

Introduction

OIT is responsible for delivery of safe, secure, high-performing networks and systems that support agencies in performance of their missions.

The Maine Legislature's Office of Program Evaluation and Government Accountability (OPEGA) has completed a follow-up review of the Office of Information Technology. OPEGA performed this review at the direction of the Government Oversight Committee (GOC) for the 125th Legislature.

The Legislature created the Office of Information Technology (OIT) in 2005 by consolidating IT functions in Executive Branch agencies into one entity within the Department of Administrative and Financial Services. OIT is responsible for the delivery of safe, secure, high-performing networks and systems that support agencies in the performance of their missions for the citizens of Maine. The State funds OIT through an "enterprise" account, meaning that all OIT expenses must be covered by charges to the other State agencies it supports.

Since 2006, OIT has made efforts to implement recommendations from an OPEGA review of statewide information technology planning and management.

In early 2006, OPEGA released a report on *State-Wide Information Technology Planning and Management.* Since then OPEGA has periodically reported to the GOC on OIT's efforts to implement various recommendations from that report. In 2011, the GOC considered a multifaceted request for a new OIT review. The issues raised in the request were the same as those in a number of unsolicited complaints regarding OIT that OPEGA had received over the years. They indicated that the recommendations from 2006 had not all been fully or adequately implemented. As a result, in 2012, the GOC directed OPEGA to conduct a formal two-year follow-up review of OIT's plans and progress in several critical areas.

Issues brought to the GOC in 2011, however, indicated there had not been much improvement in some areas. The GOC directed OPEGA to conduct a two-year follow-up review focused on three critical areas.

Key IT problem areas were widely known at that time and new management at OIT was attempting to address them. The purpose of OPEGA's review was to assist the Legislature in holding OIT more formally accountable for effectively addressing these known concerns going forward.

The review focused on ensuring OIT made acceptable progress in the following critical areas:

- project management;
- business continuity planning and disaster recovery; and
- supporting the data needs of Executive Branch departments.

For the past two years, OPEGA has monitored OIT's progress in developing, and then implementing, an improvement plan for these three areas that included detailed improvement goals and actions, with timelines, that OIT would take to reach those goals. OIT finalized its two-year Strategic Improvement Plan on March 1, 2013 and subsequently presented periodic progress reports to OPEGA and the GOC on June 14, 2013, January 10, 2014 and September 24, 2014.

OPEGA monitored OIT's progress in developing, and then implementing, an improvement plan. At the end of the two-year period, OPEGA hired an outside consultant to do a comprehensive assessment of OIT's efforts.

The final phase of OPEGA's follow-up review entailed a more comprehensive independent assessment of OIT's progress in implementing its Plan. In January 2015, OPEGA retained an outside consultant with IT audit experience, CohnReznick LLC (CR), to assess OIT's progress in realizing improvements in the three areas of project management, business continuity planning and disaster recovery (BCP/DR), and data governance and analytics. OPEGA also asked CR to identify any significant challenges or barriers impeding OIT's progress in achieving the stated improvement goals and make appropriate recommendations for addressing them. CR submitted its final report to OPEGA in June 2015. CR's report is included as Appendix A. OPEGA concurs with CR's observations and recommendations, which are reflected in the Recommendations made in this report.

Questions, Answers and Issues

1. To what extent has OIT effectively implemented its 2013 Strategic Improvement Plan for the three areas focused on in this review?

see pages 10-11 of Appendix A for more on this point

OIT made significant progress in implementing actions it could take unilaterally, and continued improvement is expected. CohnReznick observed that this progress was partially responsible for an upgrade in the State of Maine's current rating on a biennial national survey of technology presence and operations in state governments in the United States.

However, several actions in OIT's Plan were contingent on the efforts of other State agencies that have not occurred. Consequently, OIT has not fully implemented certain key parts of its Strategic Improvement Plan, particularly with regard to business continuity planning and disaster recovery and support for agency data needs. Progress for the State as a whole in these areas has not been as desired.

Agency participation, and effective partnerships between OIT and the agencies it serves, are required for the State to continue advancing its IT-related capabilities. Continued improvement is necessary to ensure the State is properly managing IT-related risks and in a position to capitalize on IT-related opportunities.

While OIT itself can do more to promote agency participation and partnerships, CR and OPEGA found several organizational challenges OIT does not have the authority to address on its own. These barriers include the lack of executive-level IT governance to ensure adequate funding for statewide initiatives and collaboration, coordination and action by all agencies toward IT-related goals. OIT also reported these challenges to both OPEGA and the GOC in its progress reports during the course of this two-year follow-up review.

2. To what extent has OIT achieved improvements in Project Management?

see pages 20-26 of Appendix A for more on this point

CR found that OIT made significant progress in developing its IT project management capabilities and converting to the Agile project management methodology. Continued improvement is expected as OIT continues to strengthen its project management function. CR noted several areas where further improvement will better align OIT with industry standard practices.

OIT's Agile Center for Excellence is not yet fully developed and OIT has not fully adopted portfolio management capabilities or procedures across its entire project portfolio. Standard processes such as project initiation procedures and project closeout meetings were not consistently followed in the sample of projects CR reviewed. The project intake process also did not include project managers until project decisions and intakes were completed, and project artifacts (tools) were not created uniformly across projects. Additionally, CR found that OIT did not perform project budgeting and cost analyses because project managers lack the necessary information to do so.

3. To what extent has OIT achieved improvements in Business Continuity Planning and Disaster Recovery?

see pages 12-14 of Appendix A for more on this point

OIT has made significant progress addressing previously known gaps in business continuity planning and disaster recovery such as conducting tabletop exercises and supporting agencies as they develop plans on an ad hoc basis. OIT has also hired a BCP/DR manager who is developing the structures necessary to support statewide BCP/DR efforts.

However, statewide BCP/DR efforts to date have not mitigated risks associated with potential disasters or catastrophic system failures. Business Impact Analyses (BIA) are necessary for sound business continuity and disaster recovery planning within both OIT and individual agencies, but have not been completed for any State agency. Agency participation is critical to BCP/DR efforts and such participation is impacted by broader organizational challenges outside of OIT's control.

4. To what extent has OIT achieved improvements in its capacity to support the data and analytic needs of analysts, managers and decision makers in all State agencies?

see pages 14-20 of Appendix A for more on this point

Little progress has been made in improving data governance[1] and analytic capabilities for Executive Branch agencies, primarily because this area is impacted by broader organizational challenges and did not receive much focus until late in the two year review period. OIT's new Enterprise Warehouse and Analytics group was only established in 2014. The roles, responsibilities and expectations of OIT and the agencies it supports still need clarification. Advancing data capabilities requires agency commitment and participation and an executive-level forum for engaging all Executive Branch agencies is still developing.

[1] For the purposes of this report, data governance refers to the overall management of the availability, usability, integrity and security of the data employed in an organization.

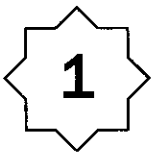
Currently, data governance and analytics capabilities and practices are inconsistent across the Executive Branch. CR assessed the overall maturity of the data capabilities of the Executive Branch and found the agencies to be at an immature level with limited users, islands of information systems across agencies and no designated executive business sponsor.

OPEGA identified the following issues during the course of this review. See pages 5-12 for further discussion and our recommendations.

- Lack of executive-level governance for information technology adversely affects the State's ability to address critical information technology matters.
- Disaster recovery and business continuity planning efforts have not mitigated risks associated with potential disasters or catastrophic system failures.
- Data governance and analytics capabilities and practices are inconsistent across the Executive Branch and are at an immature level.
- Roles, responsibilities and expectations of OIT and the agencies it serves are not clearly defined or communicated.
- OIT's current funding model does not ensure sufficient resources for core IT activities common and critical to all State agencies.
- OIT project managers cannot fully estimate costs on proposed projects or perform complete budget to actual cost analysis on IT projects in progress.
- OIT needs to continue efforts to further mitigate IT-related risks for the State, move toward industry best practices and improve the services it provides.

Recommendations

In making the following recommendations, OPEGA has drawn on CR's results as well as our own observations over the two-year period of this follow-up review. Recommendations 1-6 address issues CR and OPEGA identified as challenges or barriers to OIT's ability to support advancing the State's position with regard to the three areas under review. Implementing each will require the participation of agencies as well as OIT. Recommendation 7 captures the remaining recommendations contained in CR's report that OIT can address on its own.



The Administration Should Establish an Executive-level, Enterprise-wide IT Governance Function

The areas focused on in this review are individually important for every agency program and collectively critical for the State. However, there is currently no enterprise-wide, executive-level directive or governance for BCP/DR, data governance and analytics, or IT project management that ensures adequate planning, funding, collaboration and action on the part of both OIT and State agencies.

Efforts in these three areas require partnerships between OIT and the agencies. Given its role as a service agency and its position in the State's organizational structure, OIT does not have the authority to direct agencies to fund or otherwise engage in these efforts. Several of OIT's planned actions in its Strategic Improvement Plan were contingent on agencies providing funding and/or assigning personnel to work with OIT. OIT stated that it would be a challenge to engage the agencies in activities they may not see as a priority, and that progress made in BCP/DR and data analytics might be limited as a result.

OPEGA discussed this challenge with OIT and the DAFS Commissioner early on in our review. Subsequently, late in the two-year period, the Office of Policy and Management (OPM) was directed to facilitate OIT and agency efforts on data governance and analytics. OPEGA understands that OPM's facilitation role currently does not include BCP/DR or IT project management, nor does it include responsibilities and authorities for other enterprise-wide governance activities such as:

- establishing an overall vision, strategy and goals;
- establishing and supporting enterprise-wide priorities;
- ensuring adequate funding for enterprise-wide initiatives and priorities;
- clarifying roles and responsibilities between OIT and agencies; and
- ensuring collaboration, coordination and action among all parties.

Recommended Management Action:

The Administration should establish an executive-level, enterprise-wide IT governance function with responsibilities, and associated authority, consistent with those described above. Responsibilities could focus initially on the three areas encompassed in our review with other IT-related areas added as necessary and appropriate. A governance function could also oversee and drive the process of defining and documenting OIT and agency roles and responsibilities through Service Level Agreements as discussed in Recommendation 4.

Options for an executive-level IT governance function include, but are not limited to, assigning the responsibilities to an existing executive-level office, establishing a new executive-level function, or establishing a steering or oversight committee. The Administration could explore how other states have effectively incorporated IT governance into their organizational structure.

The Administration Should Ensure Business Impact Analyses and Subsequent Business Continuity Plans Are Completed for All Agencies

Business continuity planning and disaster recovery (BCP/DR) efforts have not mitigated risks associated with potential disasters or catastrophic system failures. Business Impact Analyses (BIA) for individual agencies have not been completed, and, therefore, OIT and agencies lack the information necessary to develop sound DR and BC plans. OPEGA identified inadequate business continuity planning as a key issue in its 2006 report and it appears that very little progress has been made since then. This is another area in need of executive-level direction and oversight.

A **Business Impact Analysis** is a process that identifies critical business functions, and describes what would be necessary to recover these functions, in the event of a disaster or disruption in service. For example, the State of Oregon's BIA objectives are:

- To identify business processes and prioritize them according to criticality.
- To identify the Recovery Time Objective (RTO) associated with each critical business process.
- To identify the Recovery Point Objective (RPO) associated with each critical business process.
- To identify the key computer systems, equipment, and applications associated with each critical business process.
- To identify the quantitative and qualitative impacts that will be incurred should a disruption occur.
- To identify critical interdependencies associated with the business unit and its processes.

Source: *www.oregon.gov/das/cio/bcp/docs/**business_impact_analysis_questionnaire.doc***

OIT's Strategic Improvement Plan called for BIAs to be completed by the middle of 2013 using an approach that focused on determining the criticality of business applications. However, the effort did not actually get underway until OIT hired the Business Continuity Manager in July 2014 and adopted a more standard industry approach to conducting BIAs. This approach focuses on determining the criticality of business processes. OIT has since been working to complete its BIA and plans to use it as a model for other agencies. The current plan is to have BIAs for all agencies completed within the next two years. Presumably, a more fully developed Disaster Recovery Plan, as well as agency Business Continuity Plans, will follow completion of the agency BIAs.

The issues discussed in Recommendations 1 and 5 continue to present significant challenges to completing BIAs and subsequent DR and BC plans within an acceptable time frame. In the meantime, State agencies continue to face the risk that an inability to recover from a potential disaster could result in customer service disruptions, excessive costs to restore service, and significant impacts to reputation. OIT also faces many near-term decisions on back up and disaster recovery options that may be made without information needed to ensure resources are appropriately allocated.

CR's report in Appendix A, pages 5-6 and 12-14, contains more discussion on BCP/DR.

Recommended Management Action:

As part of addressing Recommendations 1 and 5, or through some other means, the Administration should establish a mechanism for ensuring that BIAs and subsequent Business Continuity Plans are completed for all Executive Branch agencies by the end of 2017. This mechanism should include monitoring and oversight to ensure OIT and agencies are appropriately prioritizing and dedicating the necessary resources to meet this goal. OIT should use the completed BIAs to develop a complete and effective statewide Disaster Recovery Plan.

3

The Administration Should Take Steps to Advance the State's Data Governance and Analytics Capabilities

Data governance and analytics capabilities and practices are inconsistent across the Executive Branch and, overall, at an immature level. Many State agencies have limited data analytic capabilities and the State lacks any baseline capability for analyzing data across agencies. Sharing information between agencies is initiated on an as-required basis with requesting agencies executing a Memorandum of Understanding with agencies that maintain the required data.

CR assessed the Executive Branch's data capabilities using an industry standard maturity model and found the State was at level two of five levels. Analytic capabilities have only recently become a priority focus for OIT and the basics of sound data governance need to be in place before the State can hope to have useful data and tools for analyzing data across agencies. According to a recent article in Governing Magazine (Appendix B), other states also currently have these limitations.

One example in Maine is the State's existing financial reporting systems, which are inadequate to meet the needs of analysts, administrators and decision-makers. OIT's Enterprise Warehousing and Analytics group conducted a recent Gap Analysis of the Financial Warehouse for the State Controller's Office. The report found that key data missing from various systems create a need to use multiple systems to answer business questions, different agencies use different subsets of reporting systems, and the overall usability of the systems needs improvement.[2]

[2] Appendix D of CR's report (OPEGA Appendix A) is the report on the Gap Analysis of the Financial Warehouse. Page 8 of that Analysis has a complete list of these findings.

The Gap Analysis recommended solutions such as providing the capability to join annual budget data with accounting system data in one query and the formation of a governance group to ensure future system upgrades address the needs of the State as whole and individual agencies. According to the State Controller, the recommendations in the Gap Analysis report are in the process of being implemented.

Continuous improvement in the area of data governance and analytics will require partnerships between OIT and agencies with clearly defined roles and responsibilities of each party. OIT sees its role as IT service provider and caretaker of the data, with agencies being owners of the data and responsible for analysis and interpretation. CR, citing a 2014 NASCIO[3] study, *States and Open Data*, noted that OIT's perspective on this and the way it has defined its role is consistent with IT service functions in other organizations, but differs on the enterprise role for standards development and execution. CR noted the lack of defined service levels and quality metrics for data and analytics support provided to OIT customers and the lack of standard data analytic tools.

Challenges and issues associated with creating effective partnerships between OIT and the agencies have been discussed in Recommendations 1, 4 and 5.

CR's report contains additional detail on the subject on pages 6 and 14–20.

Recommended Management Action:

Advancing data governance and analytics capabilities should be specifically considered in actions taken with regard to Recommendations 1, 4 and 5. In addition:

A. Agencies should develop the necessary internal business intelligence capacity to effectively manage and utilize data. This might take the form of a dedicated position with the responsibility and technical expertise to collaborate with OIT and drive data governance and analytics within each agency.

B. OIT should develop a formal data governance policy with controls to manage data integrity and privacy risks for itself and a model policy for agencies to use as a basis for their own.

C. Agencies should develop data governance policies specific to their data with assistance from OIT as necessary.

D. OIT and agencies should partner to develop an inventory of data sources in each agency and assess the criticality and quality of data in each source.

E. OIT should identify and implement standard data query and analytics tools that will be used across agencies and develop capabilities to support agencies in using those tools by providing training and technical assistance.

[3] National Association of State Chief Information Officers
http://nascio.org/publications/documents/NASCIO_EAOpenData_May2014.pdf

OIT Should Establish Service Level Agreements with Agencies

The roles, responsibilities and expectations of OIT and the agencies it serves are not clearly defined or communicated. Each focus area of this review requires a partnership between OIT and State agencies to effectively and efficiently address current needs and work toward continuous improvement. OIT has consistently stated that its role is a service function with limited business area responsibilities and authority. CR observed that this is an appropriate role for OIT and found that OIT was clear about its role and the services it provides to agencies. However, both OPEGA and CR observed that agencies do not fully understand OIT's role versus theirs and may not be aware of the responsibilities OIT expects and needs them to fulfill – particularly with regard to BCP/DR and data governance and analytics.

Additionally, although OIT is a service function, it does not appear to have a fully developed customer service focus and culture. Ten years after the IT consolidation, OPEGA and legislators continue to hear anecdotally about agency frustrations with the cost of IT services and difficulties in getting timely, helpful assistance from OIT. CR made several suggestions throughout its report encouraging additional OIT focus on the customer.

It is an industry standard practice to clarify roles, responsibilities, and performance expectations through the establishment of clear Service Level Agreements (SLA) between the IT organization and the agencies it serves. These agreements are customer focused. Generally, they include a commitment to continuous improvement, clarify roles and responsibilities of both IT and the agency, and establish performance measures for IT services that both parties monitor and track. SLAs can vary in specificity and may include the cost of each IT provided service.

Service Level Agreements between OIT and the State agencies could not only clarify roles and responsibilities, but also provide a means to establish service expectations that may begin to address agency frustrations regarding the level and value of OIT services in relation to what they cost.

Recommended Management Action:

OIT should establish a Service Level Agreement with each agency. OIT should be responsible for initiating the process; however, each agency will need to assign a representative with appropriate knowledge and authority to work with OIT on developing the Agreement. Oversight of the entire endeavor by an entity assigned the governance role outlined in Recommendation 1 could facilitate participation by all agencies in this effort. OIT should consider standard, effective SLAs and processes used by other states in developing its own.

DAFS Should Reassess OIT Funding for Core IT Activities Common and Critical to All Agencies

The State funds OIT entirely through an enterprise account that charges individual agencies for the various services it provides including BCP/DR, project management and data and analytics efforts. This funding model is a barrier to adequately addressing current IT needs and continuously improving in areas critical to the State as a whole and where a statewide base level of activity is necessary to provide sufficient services and address risks common to all agencies.

Resources put toward these efforts are impacted by the allocations of individual agencies whose budgets are constrained and who may not recognize how important areas like BCP/DR are to their programs and the State. On page 5 of its report, CR offers several examples of the consequences of insufficient funding for BCP/DR, data governance and analytics, and project management support. The risk of inadequate efforts resulting from such funding decisions might be mitigated by an alternative funding model. For example, one model could make direct appropriations to OIT to cover the cost of core statewide functions, and charge agencies directly for specific functions required by the agencies to pay for additional resources OIT must employ.

Recommended Management Action:

The DAFS Commissioner and State Controller, in conjunction with the Chief Information Officer, should reassess how OIT is funded for core functions and capabilities common to, and needed across, all agencies including disaster recovery and business continuity, data governance and analytics and certain portions of the project management function. The DAFS Commissioner should report to the Legislature's Joint Standing Committees on Appropriations and Financial Affairs and State and Local Government on the assessment, and whether a change in the funding model is desirable to ensure sufficient funding for critical, common IT-related activities across the Executive Branch. DAFS' report to the Legislature should include proposed legislation for implementing any desired changes.

DAFS Should Take Steps to Ensure OIT Project Managers Can Develop Accurate Budgets, and Monitor and Report on Costs

CR found that OIT project managers are not able to provide cost estimates or accurately report on costs incurred during projects. According to OIT, it does not have information readily available to do so and this also impacts its ability to develop a complete project budget and cost estimate during project planning. Consequently, OIT is not in a position keep customer agencies informed of variances and predicted challenges to project budgets.

OIT explained that while it knows the project assignments and billing rates for resources within OIT, that same information is not readily available to OIT for project participants in the agencies. For example, hourly rates for agency staff are calculated by the DAFS Service Center that supports the particular agency and are

not known to OIT during project planning. CR also noted that OIT's billing to an agency for a project was handled outside the project team with limited data regarding project spend and cost allocation available for tracking and assessment by either the project team or the customer agencies.

Recommended Management Action:

Budgeting and cost analysis are key components of successful projects. OIT should work with the DAFS Division of Financial and Personnel Services and the State Controller's Office, as appropriate, to identify and address the challenges impacting OIT's ability to develop accurate project budgets and analyze costs throughout projects. Subsequently, OIT should ensure that project managers are performing regular budget to actual cost analyses and keeping customer agencies informed of budget variances and anticipated budget challenges consistent with recommendations on pages 24-25 of CR's report.

7

OIT Should Implement the CohnReznick Recommendations Within Its Authority

In addition to the OIT-specific actions suggested in Recommendations 1-6, the CohnReznick report in Appendix A includes a number of OIT-specific recommendations related to issues that are within OIT's authority and ability to address on its own. These additional recommendations are summarized as follows:

Business Processes – OIT should consider a thorough analysis of business processes and identification of a broad range of opportunities along with key performance metrics for a wide range of projects. (See page 6 of CR report for more detail.)

IT Audit Function - OIT should consider re-establishing an Information Technology audit function. (See page 6 of CR report for more detail.)

COBIT Framework - OIT should consider adopting COBIT, or other framework, as a standard against which to evaluate its performance. (See page 6 of CR report for more detail.)

BCP/DR – OIT should increase partnership outreach and identify communication mechanisms to formalize reporting for BCP/DR initiatives between OIT and its customers. (See page 13 of CR report for more detail.)

Data Analytics (See pages 17-19 of CR report for more detail.)

- Establish a risk management process for data analytics.
- Prepare a comprehensive data policy
- Adopt data governance policies
- Establish technical standards
- Implement data assurance tools
- Monitor business performance metrics

Project Management (See pages 22-26 of CR report for more detail.)

- Continue developing Agile policies, tools and agency partnerships
- Standardize governance for Agile projects

- Standardize Agile project initiation practices
- Improve communication and quality management during project execution
- Develop remediation actions in the case of project failures to support customers in solving their problems
- Develop project close out signature requirements by all parties, including customer and project manager to ensure all issues are closed out and customer need is met
- Consistently conduct project close out meetings
- Develop project close out metrics and final reporting keys
- Develop testing standards for Agile projects
- Enhance oversight of third party providers
- Perform post-implementation goal assessments

Customer Service – OIT should strengthen its customer service focus and culture to enhance relationships, better understand needs, support improved execution of projects and ongoing technology efforts, and improve the delivery reputation of OIT throughout State government.

Recommended Management Action:

OIT should consider these additional CR recommendations and establish a timeline for implementing them, or appropriate alternative solutions, so as to further mitigate IT-related risks for the State, move toward industry best practices, and improve the services it provides. The Chief Information Officer should report to the Government Oversight Committee and the Joint Standing Committee on State and Local Government on its planned actions in response to these recommendations.

Recommended Legislative Action:

The Joint Standing Committee on State and Local Government should monitor OIT's progress implementing its action plan and advise the Government Oversight Committee of any concerns it has with OIT's efforts.

Agency Response

In accordance with 3 MRSA §996, OPEGA provided the Office of Information Technology and DAFS an opportunity to submit additional comments after reviewing the report draft. OIT's response letter can be found at the end of this report. DAFS and OIT's overall response and actions they are proposing to take in response to issues identified in this report are below.

The Office of Information Technology (OIT) is pleased to receive and respond to the 2015 Office of Program Evaluation and Government Accountability (OPEGA) report, findings and recommendations. The work of OIT in the areas of review can be very complex, and the OPEGA team and CohnReznick worked hard to understand our work and objectively complete their assessment.

Response to Overall Findings

OIT concurs with the overall findings of this report because they are closely aligned to OIT's current and established strategy to provide innovative, consistent results to our agency customers. The majority of recommendations have been addressed by work OIT has completed since the review or will be completed as part of projects that are currently underway.

Generally, we agree with the finding that enterprise executive level governance for information technology needs strengthening and that funding is needed to support the continuation of those planned improvements. We specifically agree that we:

- Made significant progress in the area of project management.
- Demonstrated important progress in the area of business continuity and disaster recovery.
- Are making progress in the area of data sharing and business intelligence.

We also concur that in all areas we must continue to improve. To that end, as part of our Five-year Road Map, OIT has developed a framework to achieve these improvements and estimated the resources necessary to be successful. OIT can continue to improve by:

- Continuing to foster strong partnerships with our agency partners.
- Expanding the role of the Project Management Office (PMO) to all IT projects.
- Growing the use of enterprise technology tools like Business Process Management and Electronic Content Management.
- Continuing to train and deepen the capabilities of the Agile Center of Excellence (COE).
- Completing agency specific business impact analysis (BIA) efforts.
- Executing current plans to improve network infrastructure.
- Increasing the maturity level of our data analytic offerings.

To be successful, OIT will need support from other executive branch agencies and the legislature in order to reach the highest level of quality outcomes. Agencies are very cooperative in the areas of project management, disaster recovery, cyber security, and data management. However, they are also straining under the load of supporting their own missions while assisting OIT with statewide IT initiatives such as the Windows 7 rollout and the upgrade to Internet Explorer 11. However, substantial partnerships will be needed to complete our work. For example:

- Agencies should continue to cooperate with the PMO and follow industry standard processes and methods, and should continue to incorporate project management cost allocations as part of the overall cost of projects.
- Agencies should continue to cooperate with BC / DR activities.
- Agencies should take the lead on articulating data sharing and Business Intelligence (BI) plans (enterprise wide information sharing and analytics) , while OIT provides data governance, the best-in-class tools and processes to realize those plans.
- The Maine Legislature should appropriate funds to encourage enterprise initiatives (disaster recovery, cyber security, project management, data analytics, etc.).

Response to OPEGA Recommendations

1

The Administration Should Establish an Executive-level Enterprise-wide IT Governance Function

OIT strongly concurs that enterprise-wide executive-level governance is needed. The State of Maine stands to gain much in the way of efficiency and innovation by following common, consistent and transparent delivery practices such as Agile and enterprise project management for all initiatives. Gains can also be realized by choosing enterprise technology solutions over single point solutions, establishing a single vision and strategic direction for technology adoption and innovation, and establishing enterprise technology priorities.

Action Steps

- Planned: As part of the Five-year Road Map, OIT will clearly articulate how agencies and taxpayers benefit.
- Planned: OIT will include agencies in specific implementations.
- Planned: OIT and DAFS will work with the Governor's Office to research and implement a stronger enterprise IT governance process.

2 The Administration Should Ensure Business Impact Analyses and Subsequent Business Continuity Plans are Completed for All Agencies

OIT agrees with this recommendation and to further a successful outcome, OIT will:

Action Steps

- Completed: Provide an industry best practice framework and lead a repeatable process to complete BIAs.
- Completed: Formally launch a network improvement project that will lower risk and increase performance.
  Completed: Initiate conversations with agencies to assist them in the creation of their BIA and Service Level Agreements (SLA).
- Underway: Continue on-going projects.

3 The Administration Should Take Steps to Advance the State's Data Governance and Analytics Capabilities

OIT concurs with this recommendation and commits to the following:

Action Steps

- Completed: Assemble a formal multi-agency data governance committee.
- Completed: Assemble, with agencies, a data integrity and inventory working group.

4 OIT Should Establish Service Level Agreements with Agencies

OIT concurs with this recommendation. Service Level Agreements are already utilized by OIT to formalize agreements with some agencies, and agrees that the use of SLAs should be expanded.

Action Steps

- Schedule regular agency engagement meetings where the following discussions take place:
  - Issues and problems
  - Future plans
  - Strategies to provide better customer service
  - Agreed action plans to remedy customer service or relationship issues

5 DAFS Should Reassess OIT Funding for Core IT Activities Common and Critical to All Agencies

OIT agrees to review this recommendation. Currently, as reported by OPEGA, OIT must cover all costs by directly recovering them from our partner agencies. This can limit OIT's ability to invest in enterprise improvement and innovation and to offer enterprise-level consulting services at a cost that can be accommodated by both small and large agencies.

6 DAFS Should Take Steps to Ensure OIT Project Managers Can Develop Accurate Budgets and Monitor and Report on Costs

OIT concurs with this recommendation and has already established a closer relationship with the State government service center to better measure and report on project budgets. OIT commits to continuing our improvement effort in all aspects of project management, including budget control.

Action Steps

- Completed: OIT has scheduled regular meetings with the Service Centers and selected agency representatives to improve project budgeting and controls.
- Planned: Propose pilot budget and control method for the Department of Labor project portfolio.

7 OIT Should Implement the CohnReznick Recommendations Within Its Authority

OIT concurs with this recommendation. Many of the recommendations proposed by CohnReznick are currently part of OIT's work plan. As reported, OIT has made strides in forwarding the Agile frameworks for projects; additional examples of initiatives currently underway include:

Action Steps

Business Process

- Completed: Continue infrastructure group adoption and implementation of an industry standard operational improvement regime known as KanBan.
- Planned: Formally launch planned Key Performance Indicator project.
- Planned: Standardize customer engagement process for projects and initiatives, including MOUs and SLAs.

Audit Function

- Planned: OIT will investigate audit function role and consider applicability.

COBIT Framework

- Planned: OIT will consider COBIT framework and investigate implementation.

BCP/DR

- Planned: OIT has begun outreach to gain input and determine communication mechanisms to formalize reporting.

Data Analytics

- (See recommendation #3)

Project Management

- Planned: PMO will execute current plan to hire an Agile testing leader to standardize the process.
- Planned: PMO will establish in policy all implemented practices.
- Planned: PMO will review and amend current policy for common governance scheme for both Agile and tradition projects.
- Planned: PMO will execute current plan to add 7 additional Agile resources to COE.
- Planned: PMO will begin Agile/KanBan Coaching to DHHS/Office of Child and Family Services.
- Planned: Expand the role of enterprise Agile coaching.

List of related High Level OIT Actions, Planned, Completed or Underway

- Completed: Hired a BC/DR manager credentialed by the Disaster Recovery Institute.
- Completed: Developed a Business Impact Analysis for OIT.
- In Process: Have started the process to acquire the necessary equipment to provide redundancy between data centers.
- Completed: Established a team that is working with the agencies regarding the application of big data.
- In Process: Developing tools that will enable agencies to extract data that will contribute to better business decisions and metrics.
- In Process: Working closely with the agencies to complete BIAs and SLAs.
- In Process: Working alongside the agencies to increase the maturity level of our data analytic offerings.
- In Process: Working with the agencies to enhance the expanding role of the PMO to all executive branch Information Technology (IT) projects.
- Completed: Hired Agile Coaches to deepen OIT and agency Agile practices.

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