Government Oversight Committee
OPEGA Review of Office of Information Technology, August 2015
OIT / DAFS Update – March 2018

OPEGA report: http://legislature.maine.gov/uploads/originals/final-oit-follow-up-report-8-18-15.pdf

As requested by OPEGA Director Beth Ashcroft, below are OIT / DAFS updates on OPEGA's recommendations 1-6, highlighting recommended management actions. See the link above for the full report, with details on each recommendation, and the agency responses provided as part of the August 2015 report.

Updates as of March 2018:

Recommendation 1. The Administration Should Establish an Executive-level, Enterprise-wide IT Governance Function

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.

OIT / DAFS Response (3/2018):

On September 1, 2016, the Governor issued "An Order Establishing the State Information Technology Governance Committee." The Committee, whose membership includes Commissioners from multiple agencies, shall endorse a strategic, enterprise-wide plan for the states technology needs, oversee technology spending, advise on technology risks, and review technology investments.

The Committee has been meeting for over a year. It meets at a minimum quarterly, and more frequently as needed.

An Order Establishing the State Information Technology Governance Committee

September 1, 2016

2016-006

AN ORDER ESTABLISHING THE STATE INFORMATION TECHNOLOGY
GOVERNANCE COMMITTEE

WHEREAS, the State of Maine spends approximately $145 million per year on information
technology (IT); and

WHEREAS, State agencies have increasingly depended on reliable and secure technology
systems in order to optimally serve the people of Maine; and

WHEREAS, it is the position of the Administration that technology should be leveraged to
achieve a more efficient and effective state government; and

WHEREAS, it is essential that IT expenditures are made strategically to support the State's
technology goals and priorities; while strengthening our security; and

WHEREAS, the most effective way to implement the IT goals of the State is to ensure
communication, coordination and collaboration at the highest levels of state government;

NOW, THEREFORE, I, Paul R. LePage, Governor of the State of Maine, do hereby establish the
State Information Technology Governance Committee for the purpose of ensuring strategic IT
planning and spending, as follows:

1. The State Information Technology Governance Committee shall be composed of seven
   members, with five permanent members and two members rotating on an annual basis.
   The permanent membership of the Committee shall include a member of the Governor's
   staff, the Commissioner of the Department of Administrative and Financial Services, the
   Commissioner of the Department of Health and Human Services, the Commissioner of
   the Department of Labor, and the Chief Information Officer. One of the remaining
   positions on the Committee shall be filled by the Commissioner of the Department of
   Education, the Commissioner of the Department of Transportation, or the Commissioner
   of the Department of Public Safety on an annual, rotating basis. The remaining position
   on the Committee shall be filled by a Commissioner or Director from the other Cabinet
   Level agencies on an annual, rotating basis. The Chief Information Officer shall serve as
   Chair of the Committee.

2. The Committee shall:

(a) endorse a strategic, enterprise-wide plan for the State's IT needs;
(b) prioritize and make recommendations concerning IT investment;
(c) suggest a plan for adoption of tools and practices for operational efficiency;
(d) monitor IT performance and benefits across all state agencies;
(e) advise IT risk management including the areas of cybersecurity and disaster recovery;
(f) review vendor management and IT projects costing over $1 million, or other strategic IT investments as determined by the committee; and
(g) review application development and investments to ensure compliance with the enterprise-wide plan for IT needs; and
(h) make recommendations regarding the status, recruitment and retention of the State's IT workforce.

3. The Committee shall report its recommendations directly to the Governor on a quarterly basis.

The effective date of this Executive Order is August 31, 2016.

Related Documents

[An Order Establishing the State Information Technology Governance Committee](#)

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

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.

OIT / DAFS Response (3/2018):

The Office of Information Technology (OIT) continues to work with Executive Branch agencies to plan, develop, and test both business continuity (BC) and disaster recovery (DR) capabilities. Following industry best practices, the agencies and OIT are developing Business Impact Analysis (BIA) documents which indicate the most critical systems and processes that need to be recovered first. OIT has been piloting this work with divisions in DAFS first.

In addition, OIT has worked over the past year to add both capacity and redundancy to the state's networks and telecommunications systems, to help prevent "single points of failure." SOM's two data center networks are now fully redundant. We are undertaking further upgrades through 2018 which will make the campus networks fully redundant as well. It should be noted that although the network components are now more resilient, most application systems are dependent on "single point of failure" servers that are only in one of the data centers. This is because of lack of budget to provide for more redundancy / fail-over at the application server level. This remains as a potential vulnerability for service delivery.

The OIT BC-DR Manager resigned in August 2017. We have made an offer to a replacement, but the new candidate is not scheduled to join until May 2018. This has been a disruption to BC / DR progress. When the new BC / DR Manager does come onboard, OIT will pilot a condensed BC / DR workflow, which has the promise to deliver a baseline result sooner. The emphasis will be to concentrate on the most critical applications for each bureau, align them with the Governor's priorities, and conduct call-tree exercises.

DAFS progress on BC / DR planning: Most of the DAFS bureaus have completed their initial BIAs. Maine Revenue Services completed its BC / DR plan.

Progress across other state agencies remains slow, however. Foundation work has started with DOL and DHHS but, stalled after the BC-DR manager resigned last summer. DAFS is exploring opportunities to organize this effort more effectively and determining what level of investment is appropriate to adequately complete the effort.

State of Maine Executive Branch system recovery priorities:
1. Essential Communications
2. Citizen Health & Safety
3. Direct Citizen Services
4. State Revenue
5. Economic Development
6. Routine Government Services

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

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.

OIT / DAFS Response (3/2018):

The Office of Information Technology (OIT), in response to this recommendation, drafted a Data Governance Policy for OIT maintained data. The new policy is in the process of being vetting and approved by senior management before its implementation. Once in place, the new data governance policy can be shared with other agencies as a model. OIT has also facilitated the distribution of data sharing agreements between agencies to use as templates for the development of new agreements.

To help expand the availability of analytic tools, OIT and the Office of the State Controller are executing a Data Warehouse project to improve the reporting and analytic capacity of the State's financial, budget, and human resources data warehouse. Once implemented, over 1,000 users will have access to a common set of reporting and analysis tools from Oracle. This project will integrate HR, budget, and finance data into a single structure and have created a common modern interface in an Oracle environment to allow analysts across the State to more efficiently interact and analyze the data.

To further standardize the approach to data analytics, OIT has formed a Data Warehousing and Analytics team to operate and maintain data warehouse applications across the enterprise. This team supports interagency approved data sharing, and clusters similar types of applications to

leverage warehouse development skill sets for a leaner more efficient workforce. The horizontal support structure and clustering of applications is an example of best practices for future operations and development of data warehouses reporting systems.

Recommendation 4. OIT Should Establish Service Level Agreements with Agencies

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.

OIT / DAFS Response (3/2018):

OIT has undertaken an effort to create SLAs to capture service expectations. This process was started in 2017 but, was ultimately not completed for the application side of IT due to management prioritization. The effort has been restarted and is being pursued in conjunction with the biennial budget process. The baseline SLA is intended to capture expectations relating to the basic services related to the maintenance & operations (M&O) for agency applications.

Infrastructural service levels are documented in the OIT service catalog. Effectively these represent the "baseline" level of support for items like storage, network, and connectivity. Exceptions to baseline services in this case will also be recorded in the Application and Project SLAs.

Challenges
- The state's applications portfolio as well as its underlying technology environment is very diverse.   OIT is developing SLAs in conjunction with the development of the FY20/21 budget currently underway. It is expected to be completed by August 1, 2018.
- Agency engagement. The previous effort was hampered by poor agency engagement.
- Previous efforts at obtaining other states' SLAs have not yielded useful information.

Timeline
- **Baseline Applications SLA** (June 2018) – Standard SLA covering common expectation for all agency applications. The basic scope of this document will cover typical sustainability M&O needs for agency applications.

- **Enhanced Application SLAs** (July-Aug 2018) – This effort is ongoing and will proceed through July. The goal of these artifacts will be to capture specific needs for applications over and above standard (keeping the lights on) basic M&O. This will include systems availability windows, system redundancy, modest enhancements, etc.
- **Project SLAs** (ongoing) – We will develop these for all existing and new projects. The focus here is service levels and availability guarantees needed for success.

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

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.

OIT / DAFS Response (3/2018):

Starting in 2015, OIT / DAFS worked with the Governor's Office, the State Controller's Office, and the DAFS Commissioner to develop a method to "enterprise" fund multiple technology endeavors, such as cyber security defense, disaster recovery, project management governance, and workforce management.

To support this approach to technology enterprise funding, DAFS / OIT recommended the creation of a stand-alone technology department, to be named the Department of Technology Services. This proposal included a portion of enterprise general funding for common services (as opposed to the current charge back model from individual agencies) and elevating the CIO to a cabinet position to advise on technology directions and risk such as cyber security and disaster recovery. The general fund appropriation request was for $8 million in fiscal year 2018 and $12.5 million in fiscal year 2019.

This recommendation was proposed to the State and Local Government Committee in February of 2017, as part of Statewide budget deliberations. While there was some support for the idea at the Committee level, ultimately when the budget was enacted, the proposal was not included.

Since the proposal was not approved, OIT has continued to use its current funding method for enterprise activities such as data mining, disaster recovery, project management, and cyber

security. OIT did receive authority to borrow $21 million, with a 7-year payback. That funding was used to upgrade the network and telecommunications services. In addition, for the 2020 / 2021 budget, OIT will be recommending the creation of an "Enterprise" fund to continue common endeavors such as cyber security defense, internships, a cost management system, and Project Management governance.

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

Recommended Management Action:
Budgeting and cost analysis are key components of successful projects. OIT continues to 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. OIT, additionally, is developing a system and process to allow project managers to perform regular budget to actual cost analyses and to keep customer agencies informed of budget variances and anticipated budget challenges consistent with recommendations on pages 24-25 of CR's report.

OIT / DAFS Response (3/2018):

The Project Management Office acknowledges the importance of accurate budgets, monitoring and reporting on costs.
*   IT projects tracked and managed by an OIT project manager track IT costs (software, hardware, services, testing, resources) through tools such as Excel and Microsoft Project. The PMO provides templates to ensure consistency across projects. As part of OIT PMO practices, Project Mangers now include a budget / expense summary in the briefings to project sponsors.
*   OIT will be working with the DAFS State Controller to build best cost-tracking process for both technology and business expenses, and to develop a State of Maine standard for reporting.
*   One new project currently in development, the OIT Billing project, will help with future project expense tracking by standardizing data capture and reporting. The project will replace the 25-year-old manual billing system in use today with an industry standard billing package. Technology billing and budget data will be standardized starting in the 2019 budget cycle.