Legislative Council Staff

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Memorandum

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January 7, 2019

TO: Joint Technology Committee

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SUBJECT: Summary of House Bill 17-1361 Evaluation Report Findings

Summary

In November 2018, the Office of the State Auditor hired BerryDunn to conduct an evaluation of state information technology (IT) resources, as mandated by House Bill 17-1361.[1] This memorandum provides a summary of the recommendations from the evaluation report that specifically mention the Joint Technology Committee (JTC). Please see Appendix A for a full list of the report recommendations.

Contents

IT Project Selection and Legislative Review

HB 17-1361 required an evaluation to examine whether the state's executive branch has a strategic plan in place to "guide its process for evaluating, prioritizing, and selecting IT projects that require new or ongoing appropriations of state money." This included evaluating whether the JTC, along with other stakeholders in the legislative and executive branches, could make any changes or improvements to this process. HB 17-1361 also required an evaluation of the legislative review and reporting processes currently in place for the Governor's Office of Information Technology (OIT) in connection with the JTC and the Joint Budget Committee (JBC).

IT project selection process improvements. The evaluation determined that OIT does have a strategic plan, in the form of the annual OIT Playbook, to guide the process for evaluating, prioritizing, and selecting IT projects that require new or ongoing appropriations of state money.[2] However, the

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[1]A full copy of the evaluation report can be found here: http://leg.colorado.gov/audits/hb17-1361-evaluation-report-evaluation-state-it-resources.
[2]A copy of the FY 19 OIT Playbook can be found here: http://oit.state.co.us/about/playbook.

evaluation determined that the IT project selection process is not wholly effective, with opportunities for improvement. In particular, the evaluation determined that state agencies sometimes bypass parts, or all, of the IT project evaluation, prioritization, and selection process, including entering into IT-related contracts without OIT involvement or not regularly completing the cost-benefit analysis for IT project budget requests as required by statute.[3] Recommendation number six in the evaluation report outlines several ways that OIT may improve the OIT project evaluation, prioritization, and selection process, including improving collaboration and communication with IT decision makers in the other executive branch agencies.

IT project legislative review improvements. Once IT projects are prioritized and selected by OIT and the Office of State Planning and Budgeting for funding, these budget requests are sent to the JTC and JBC for review and funding approval. The evaluation determined that the existing legislative review and reporting processes in connection with the JTC and JBC are adequate for most IT projects. However, the evaluation did suggest implementing additional reporting requirements for IT projects when contract negotiations are ongoing and to more clearly establish who has primary ownership of the project.

Recommendation number seven suggests that OIT collaborate with the JTC to clarify the definition of project manager in statute so that the OIT project manager's responsibility for project success is clear. Additionally, this recommendation suggests that OIT make several changes to its quarterly status reports that are provided to the JTC, including:

- ensuring agency participation in the creation and delivery of these reports;
- listing key project personnel from OIT and state agencies; and
- adding a "stakeholder and policy alignment" status indicator.

Other Relevant Recommendations

Recommendation number two proposes that OIT improve its management and tracking of IT assets, including identifying opportunities for improving the state's three data centers and investing appropriate resources to fix any deficiencies. For FY 2019-20, OIT has requested state funds for phase two of a project to update the state's Lakewood data center and modernize OIT's infrastructure services.

Additionally, recommendation number two suggests that OIT complete failover testing to check the ability of its systems to handle various types of failures as a routine part of sustainability testing. In response to this recommendation, OIT has pledged to communicate the results of its sustainability planning and testing to the JTC annually.

Recommendation number eight suggests that OIT work with the JTC and other stakeholders to review and revise Section 24-37.5-105 (3)(b), C.R.S., which requires OIT to "develop and encourage a world wide web-based state government and facilitate the dissemination of information onto the web." The recommendation includes revising statute to define a role that aligns with OIT's authority, financial

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[3]Section 24-37-304 (1)(c.5)(V), C.R.S.

and human resource capacity, and the stated responsibilities of partner entities, such as the Statewide Internet Portal Authority (SIPA). OIT disagreed with this recommendation stating that statute currently "provides OIT the authority it needs to develop and manage the state's IT strategy for citizen engagement."

Finally, recommendation number 11 provides several areas where OIT may need to work with the General Assembly, including the JTC, to improve IT governance, such as improving collaboration and communication by OIT with state agencies.

Appendix A

A full list of recommendations from the HB 17-1361 Evaluation Report is included below. This information was excerpted from the November 2018, HB 17-1361 Evaluation Report. OIT's responses to each of the recommendations and anticipated implementation dates can be found in the full evaluation report document.

Recommendation No. 1
The Governor's Office of Information Technology (OIT) should improve its management of IT HR by:

A. Improving the standards for non-classified positions and creating policy that states position titles tied to these classes must meet these standards. One of the standards enforced should be that positions requiring in-depth IT knowledge must meet a common standard (e.g., at least 25.0% of the job must be spent using technical skills). Nonclassified positions should be organized in such a way as to clearly identify those positions that require in-depth IT knowledge and collectively group similar job functions.
B. Working with the Department of Personnel and Administration (DPA) to create two new classification series: Network/Telecommunications Specialist and Network/Telecommunications Engineer; and redefining the existing electronic specialist and electronic engineer classifications to remove the specialized job skills required for network and telecommunications roles.
C. Working with DPA to update the Customer Support Coordinator classification, separating functions that are customer-support functions from functions that require in-depth technical knowledge. This may result in a new classification for a non-technical customer support agent. If so, OIT should work with stakeholder agencies to agree on a common standard and work with DPA to create it.
D. Ensuring that key performance indicators (KPIs) exist for all OIT positions, classified and non-classified, and are used to demonstrate or evaluate how human resources are achieving key business objectives and goals.

Recommendation No. 2
The Governor's Office of Information Technology (OIT) should improve its management and tracking of IT assets by:

A. Completing the transfer of full financial control to OIT (which may involve working with the Governor's Office of State Planning and Budgeting (OSPB) and the Joint Budget Committee (JBC) including purchase, maintenance and support, refresh, and depreciation. To improve the likelihood of successful implementation of this recommendation, OIT should:
   1. Modify its process such that governance approval is only required for new technology or for significant architectural changes once technology assets are fully owned by OIT (financial control with spending authority and operational control).
      a) OIT and State agencies should collaborate to create a mutually agreed definition of what technology refresh is, versus new technology changes
      b) Agency/business needs should drive the new technology acquisition; continued support and maintenance of these environments should be OIT's responsibility

       c) Champion discussions for ensuring technology refresh decisions are funded in a way that does not require legislative approval

    2. If full control of asset budgets is transferred to OIT, OIT should communicate to customers in advance, including expected impacts on agencies, when OIT is not planning to refresh a technology. A three-year notice should be provided for minor technology changes, and a five-year notice for major technology changes.

B. Prioritizing and leveraging the integration capabilities of the existing CMDB to create a single source of truth for all technology assets.

C. Working with the Department of Personnel and Administration's (DPA) Office of the State Controller to create a dedicated fixed asset type for "IT equipment," to be used to record IT fixed assets in CORE.

D. Evaluating the three primary data centers for tier ratings and investing appropriate resources to fix any deficiencies that do not align with the service levels of the services that could be provided (in the event of a failure of another data center), which should include continuing to improve the State's ability to meet requirements of Tier III or higher data centers with the appropriate data center upgrade funding (for which the budget has been requested in OIT CC-03) or additional use of cloud-based Tier IV data centers (i.e., Amazon Web Services, Google Cloud Platform, etc.).

    1. Reviewing "Operational Sustainability," as described in the Uptime Institute at all data centers and consider modifying data center processes to enhance sustainability

    2. Completing fail-over testing as a routine part of sustainability planning

Recommendation No. 3
The Governor's Office of Information Technology (OIT) should improve savings and efficiencies by:

A. Revising the annual report to separate the costs savings generated through consolidation and implementation of newer technologies from cost avoidance and following OIT's adopted standards for cost-benefit analysis (CBA) and for calculating cost savings. As a result, reporting is enhanced and additional cost savings should be documented.

B. Working with agencies to ensure that a thorough CBA for all significant IT projects is conducted, documenting baselines in the business case, and conducting post-project reviews to analyze whether cost savings were achieved.

C. Ensuring that cost savings rationale for all significant IT projects is communicated to agencies.

D. Championing discussions for a transition from technology assets (routers, hubs, servers, desktops, etc.) funded through legislative decision items to a model where OIT is given the spending authority to manage technology assets under its control, but with controls on spending (evaluate placing a growth cap on IT budget increases as recommended in 11.A).

Recommendation No. 4
The Governor's Office of Information Technology (OIT) should consider improving technology billing by:

A. Purchasing all capital technology assets (see Recommendation 2) and billing those assets to agencies on a depreciation basis. Develop a method to clearly identify and control refresh dollars that would hold collected depreciation funds for equipment refreshes; work with appropriate parties such as the OSPB or the General Assembly as needed to accomplish this.

B. Simplify the OIT billing process to:
   a. Evaluate and significantly reduce the number of units of measure used to compute OIT bills for departments, focusing heavily on measures that are less technical and more easily understood by customers and the business yet still meeting any requirements for reporting to outside funding sources (e.g., federal).
   b. Improve financial reporting consistency and comparability by minimizing changes to the service codes.
   c. Include newly created financial reporting that is consistent and comparable (maintaining consistent service codes will help, but new reporting is required to compare historical data). The format and measurement units (i.e., services included in a cost item) should be consistent and comparable year to year.
   d. In support of recommendation 4.A, each agency should be provided with a financial report of its portion of assets used to increase the transparency of financial reporting funded through all of its funding sources and meets its requirements for IT reporting.

Recommendation No. 5
The Governor's Office of Information Technology (OIT) should strategically plan for the use of consultants, vendors, or other organizations to centralize State IT resources by reviewing annually (and updating as necessary) the 2011 OIT cloud strategy to reflect significant changes in the adoption, value, and technology of recommended services

Recommendation No. 6
The Governor's Office of Information Technology (OIT) should improve the IT project evaluation, prioritization, and selection process by:

A. Working with agency leadership to encourage them to include the OIT IT Directors assigned to each agency in strategic planning activities and regular senior leadership meetings.
B. Ensuring that the regular meetings between OIT and agencies that garner feedback on OIT service include discussion of how variations to the project evaluation, prioritization, and selection process can be improved in order to help with adoption and buy-in at the agency level. Since agencies are met with individually by OIT, OIT should consider ways of sharing feedback from various agencies so that consensus can be achieved on proposed process variations. OIT should consider summarizing the consistent feedback and outline planned changes that resulted from meetings with agencies.
C. Documenting and socializing a clear definition of what constitutes a technology project versus what is considered a business project in Project Lifecycle Management (PLM) materials. Documentation should include defining roles for projects for OIT and the agency (for example, which projects OIT leads, supports [but does not lead], or is not involved in).
D. Publicizing success stories of cost savings and efficiencies attributable to the OIT evaluation, prioritization, and selection process.
E. Continuing to have a member of the OIT Executive Leadership team meet with agency senior leadership regularly (at least two times per year), but to focus discussions on strategic alignment with IT, longer-term budget items, and opportunities for improvement.

Recommendation No. 7
The Governor's Office of Information Technology (OIT) should work with the Joint Technology Committee (JTC), as needed to:

A. Clarify the definition of project manager in State statute to align with the industry definition, so the OIT project manager's responsibility for project success is clear. During OIT's existing meetings with agencies at the start of each project, project roles should be agreed upon with all primary project stakeholders and formalized in writing as a project artifact; signatures would be satisfactory to signify agreement.
B. Update OIT's process to include procedures that ensure agency participation in both the creation of the OIT quarterly status reports and the delivery of the quarterly status reports to the JTC.
C. Update the "Project Overview Section" of the one-page dashboard to explicitly require listing the Agency Project Sponsor, OIT Project Sponsor, Agency Project Lead, and OIT Project Manager.
D. As part of the OIT quarterly status reports delivered to the JTC (one-page project dashboard) a color (red, yellow, green) should be required for a new health indicator called "Stakeholder and policy alignment." This would allow the project to identify for the JTC when project stakeholders are not in alignment with PLM policy and guidelines or any other relevant state/federal policy.

Recommendation No. 8
The Governor's Office of Information Technology (OIT) should improve citizen interaction through IT by:

A. Working with state agencies and SIPA to commission the formation of a multi-stakeholder council to focus on citizen engagement and digital government experience, comprised of OIT, SIPA, centralized and non-centralized State agencies, and Colorado citizens and businesses, as a formalized governance structure for planning for citizen engagement and digital government experience through IT across the enterprise.
B. Working with state agencies and SIPA to task this council with the job of creating and implementing a statewide strategy and plan, to coordinate, plan, and prioritize citizen and business engagement through IT across the enterprise, covering areas, including but not limited to, 24/7 service availability, social media, mobile optimization of State websites, and a customer-centric strategy for the State's website, as necessary. The strategy and plan should also clearly articulate roles, responsibilities, expected results, and points of accountability, and include citizen feedback standards, customer journey mapping, and a citizen communications plan.
C. Working with stakeholders such as the General Assembly, the JTC, and SIPA as necessary to revise Section 24-37.5-105(3)(b), C.R.S., to define a role that aligns with OIT's authority, financial and HR capacity, and the stated responsibilities of partner entities such as OIT, SIPA, and other State agencies. Once updated, OIT should review this annually as part of strategic plan development and recommend when statute revisions are needed to ensure state statute accurately reflects the State's technology capabilities.

Recommendation No. 9

The Governor's Office of Information Technology (OIT) should improve its working relationship with the non-centralized agencies by:

A. Developing and executing service level commitments (SLCs) for non-centralized agencies, similar to those already in place with centralized agencies.
B. Assigning an existing manager within OIT to be the single point of escalation for all noncentralized agencies to assist in managing the customer relationship.

Recommendation No. 10

The Governor's Office of Information Technology (OIT) should address the findings associated with low levels of consumer satisfaction by focusing and improving communications to all customers. This should start with the development of a comprehensive communications and stakeholder management plan that minimally includes the following:

A. Establish and articulate goals for the communication and stakeholder management plan
B. Identify and profile the stakeholder audience
C. Include key messages and tools tailored for different audiences (for example centralized and non-centralized agencies)
D. Identify and select the communication channels that will be used to communicate to stakeholders
E. Develop a matrix of which stakeholders will receive which communications, including when communications will be received
F. Conduct an annual survey of the State for feedback on OIT services (similar to the survey conducted during this assessment); have an independent third party conduct the survey on behalf of OIT to encourage staff to participate in a truly anonymous fashion (as it elicits better feedback)
G. The plan should include a stakeholder analysis and feedback to learn where stakeholders feel communications from OIT can improve or should be different
H. Develop a list of specific actions to undertake annually to close the gaps between current and desired stakeholder engagement levels, based on feedback collected by OIT, the annual survey, and other feedback channels
I. Communicate the list of specific actions that are conducted each year by OIT so that all stakeholders understand their feedback and engagement has resulted in tangible improvements that impact them
J. Assign individuals who will be responsible for execution of plan activities
K. Other items the plan should address (include but may not be limited to):
    1. A process for informing customers when specific OIT staff changes occur that impact them
    2. A process for informing customers how and when OIT will update the agency on the status of open OIT positions, and when vacancies are filled
    3. A process for informing all agencies when OIT organizational changes occur and the reasons for the changes.

Recommendation No. 11

To improve IT Governance, the Governor's Office of Information Technology (OIT) should work with other appropriate agencies and the General Assembly, as necessary, to:

A. Create a common policy Governing Board. Require participation by all centralized agencies and open participation to non-centralized agencies. Items impacting common policy cost, value, risk, and standards should be approved by this governance group prior to proposals being circulated to the legislature. Discuss the possibility of fully owning common policy purchasing decisions as long as dollar thresholds are not exceeded. This would mean OIT would be free to make any purchasing decision and have the spending authority for common policy as long as it does not change the price of common policy beyond a percent growth cap set by the common policy Governing Board.

B. Increase the likelihood of efficiencies gains in agencies. OIT should shift its focus from resource consolidation to process consolidation to enable application-level consolidation in the future.

C. OIT should conduct a single annual meeting with representatives from all agencies and OIT leadership for the sole purpose of having open and honest communications about evolving agency needs (including but not limited to): opportunities for sharing (data, HB17-1361 Evaluation of IT Resources 83 process consolidation, application consolidation, etc.), lessons learned, sharing solutions to challenges agencies have working with OIT, etc. This meeting should not include representatives from the Governor's Office (with the obvious exception of OIT leadership) or the legislature, to help encourage the likelihood of this team being able to discuss sensitive topics and learn from one another. OIT should summarize the results of this meeting in written form and develop an action plan to address the items discussed.