

FOLLOW-UP REPORT

Technology Services

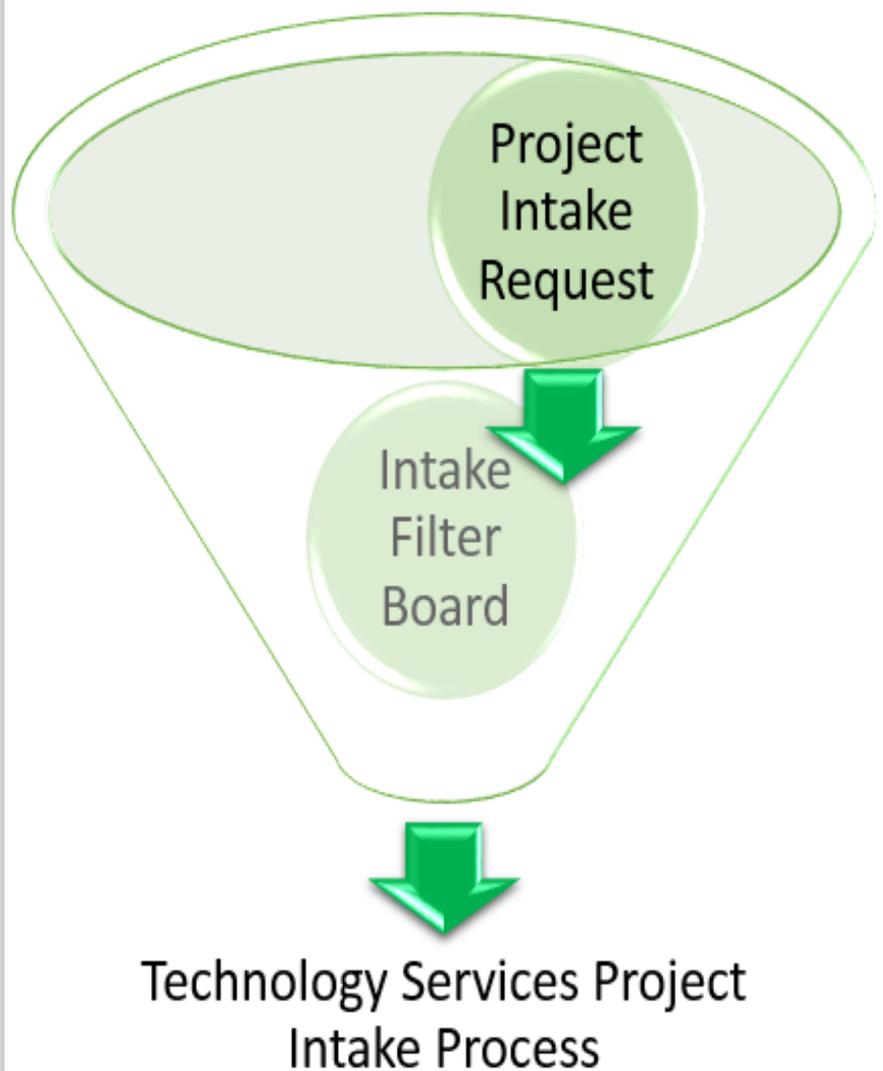
IT Project Intake

November 2018

**Office of the Auditor
Audit Services Division
City and County of Denver**



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November 1, 2018

AUDITOR'S REPORT

In keeping with generally accepted government auditing standards and the Audit Services Division's policy, as authorized by D.R.M.C. § 20-276, our division has a responsibility to monitor and follow up on audit recommendations to ensure that audit findings are being addressed through appropriate corrective action and to aid us in planning future audits.

This report is to inform you that we have completed our follow-up effort for the IT Project Intake audit issued August 17, 2017. Our review determined that Technology Services has adequately implemented most of the recommendations made in the audit report. Despite the department's efforts, auditors determined that the risk associated with the audit team's initial findings has not been fully mitigated. As a result, our division may revisit these risk areas in future audits to ensure that appropriate corrective action is taken.

For your reference, this report includes a highlights page that provides background and summary information on the original audit and the completed follow-up effort. Following the highlights page is a detailed implementation status update for each recommendation.

This concludes audit follow-up work related to this audit. I would like to express our sincere appreciation to you and to any Technology Services personnel who assisted us throughout the audit and follow-up process. If you have any questions, please feel free to contact me at 720-913-5000 or Kevin Sear, Audit Manager, at 720-913-5068.

Denver Auditor's Office

A handwritten signature in black ink, appearing to read "Timothy M. O'Brien".

Timothy M. O'Brien, CPA
Auditor



IT Project Intake November 2018

Follow-up Status

Technology Services agreed to nine recommendations made during the initial August 2017 audit but has only fully implemented seven while partially implementing one and not implementing another.

Objective

The objective of the audit was to determine the extent to which Technology Services effectively manages all aspects of its information technology (IT) project intake process, including compliance, requirements, and documented policies and procedures, which should support the intake process.

Background

Denver Technology Services (TS) is the primary IT department for the City and County of Denver (City), providing many different services for City employees and residents, such as emergency (911) and non-emergency (311) telephone services. The department also provides technology infrastructure, solution development and IT support for all City departments. The Program Management Office (PMO) within TS oversees projects from initiation through to completion. The number of project intake requests has been increasing. In 2015 and 2016, the PMO handled 140 and 177 project-intake requests, respectively. In the same period, the PMO formally oversaw nearly 100 projects.

REPORT HIGHLIGHTS

Highlights from Original Audit

Our review of the IT project intake process identified three areas for improvement.

- **Policies and Procedures**
 - The TS Intake Filter Charter did not align with the process flow listed at the end of the document.
 - Anticipated start and end dates listed for individual project charters did not reflect an accurate representation of the timeframes.
 - There was no mandate to ensure that all project requests submitted by agencies followed the project intake process.
 - There were no published IT criteria specified for the project intake process.
- **Lack of Authority**
 - There was no evidence that the TS Intake Filter Charter and the Intake Purpose and Process document had been approved by TS executive management or the process owner.
 - Evidence of approval for individual project charters and individual project closure documents could not be provided for the audited samples.
 - The individual project charter template was outdated.
- **Project Toolset**
 - The current project management tools did not offer the functionality needed to manage IT project intake requests and current projects.
 - Evidence of documentation was not retained in a central repository.

We offered nine recommendations to TS to enhance the maturity of the IT project intake process.

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RECOMMENDATION STATUS OF IMPLEMENTATION

FINDING: Opportunities Exist to Improve the Maturity of the Information Technology Project Intake Process

Recommendation

- 1.1 **Technology Services Intake Filter Charter** – The Director of Application Planning and Analysis should update the Technology Services Intake Filter Charter and the process flow to align with one another.

Status: Implemented

Auditee Action

The Technology Services Intake Filter Charter and the process flow documents have both been updated to reflect the current process.

Recommendation

- 1.2 **Project Scheduling** – The Program Management Office Director should ensure project scheduling is referenced as a separate document and not incorporated into each individual project charter. Each individual project charter should only reference the project milestones and the anticipated duration to achieve them.

Status: Partially Implemented

Auditee Action

Technology Services has begun to separate out the specific project milestone dates in the project charter and has replaced them with duration of the milestone. The project schedule, created during the planning phase, is a separate document with the specific dates. We tested all six projects completed between August 2017 and July 2018 and found two project charters still referenced specific dates and not just milestones. In addition, we noted one project did not have a project schedule.

It is apparent Technology Services has begun the process to remove the reference to project milestone dates in the project charter and has replaced them with approximate milestone duration periods and use a separate project schedule. As Technology Services has explained during interviews, it is more difficult to enforce compliance for projects that are managed by the Department of Safety because the department does not directly follow the project management process as defined by Technology Services.

Recommendation

- 1.3 **Policy & Procedure** – The Technology Services Intake Filter Board should consider creating a procedural memorandum attachment to Executive Order 18 to require that all technology project needs, and technology purchases made by the City be reviewed and approved by Technology Services.

Status: Implemented

Auditee Action

Executive management officials of Technology Services reviewed the details of Executive Order 18 and determined they did not need to amend Executive Order, 18 as the existing language addressed the risk identified by this recommendation.

Recommendation

- 1.4 **Information Technology Acceptance Criteria** – The Technology Services Intake Filter Board should specify and publish the criteria they use for evaluating projects.

Status: Implemented

Auditee Action

The Technology Services Intake Filter Board has standardized the criteria used for evaluating projects. These criteria are now readily available to all Technology Services personnel.

Recommendation

- 1.5 **Authority of Process** – The Technology Services Intake Filter Board should ensure the Technology Services Intake Filter Charter and the Intake Purpose and Process documents are signed by appropriate management.

Status: Implemented

Auditee Action

Appropriate management has signed both the Technology Services Intake Filter Charter and the Intake Purpose and Process documents.

Recommendation

- 1.6 **Approvals of Key Documents** – The Technology Services Program Management Office should ensure key documents such as the individual project charters and closure documents are signed by the appropriate authorized individuals.

Status: Implemented

Auditee Action

We tested all six projects completed between August 2017 and July 2018 and found that the appropriate authorized individuals approved all the project charters.

Recommendation

- 1.7 **Update Project Charter Template** – The Technology Services Intake Filter Board and Director of Application Planning and Analysis should ensure the Technology Services Intake Filter Charter and the Intake Purpose and Process documents and individual project charter template are updated to reflect the required authorizing individuals.

Status: Implemented

Auditee Action

Technology Services has updated The Intake Filter Charter template with lines for signatures and appropriate approvals. The Technology Services Intake Filter Charter and the Intake Purpose and Process documents have also been updated to reflect the new approval documentation process.

Recommendation

- 1.8 **Project Management Toolset** – The Program Management Office Director should implement a robust project management toolset with comprehensive functionality.

Status: Implemented

Auditee Action

Technology Services has implemented the project management functions in ServiceNow. ServiceNow is an IT support software that allows Technology Services to track and report issues and now includes project management functionality. This functionality does not include the ability to store and retrieve project documents, such as the project charter. To address this shortcoming, Technology Services will continue to use its SharePoint site as the document repository for project management. While using two systems may not be as efficient as a single software product, the existing controls the Technology Services Intake Filter Board has implemented appear to address these risks.

Recommendation

- 1.9 **Document Repository** – As part of the project closeout, the Project Manager assigned to the project should ensure that all required project artifacts, as defined in the PMO Playbook, should be retained in the approved Project Management toolset.

Status: Not Implemented

Auditee Action

We tested all six projects completed between August 2017 and July 2018. In total, there were 120 artifacts to test, or 20 per project. Of the 120 artifacts, 25 were not present in the projects on their respective SharePoint sites. All six projects were missing at least two documents (or 10 percent of the required documents), and in one case the project was missing seven documents.

Conclusion

While Technology Services has fully implemented seven of the nine recommendations made in the IT Project Intake Audit Report, one has only been partially implemented and one has yet to be implemented. Despite the efforts of Technology Services, auditors determined the risk associated with the audit team's initial findings has not been fully mitigated.

For example, 25 out of a possible 120 artifacts are missing from the population of projects that are supposed to adhere to the new Project Management Office process. If the Project Management Office is not in compliance with its own artifact storage requirements, officials stand to lose vital information associated with the project. Moreover other agencies may bypass compliance to expedite their own projects. As a result, the Audit Services Division may revisit these risk areas in future audits to ensure that appropriate corrective action is taken.

On behalf of the citizens of the City and County of Denver, we thank staff and leadership from the Department of Technology Services for their cooperation during our follow-up effort and their dedicated public service.

Office of the Auditor

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