

The logo for the City of Edmonton, featuring the word "Edmonton" in white text on a blue square background.

Edmonton

OFFICE OF
THE CITY AUDITOR

REPORT
IT Process
Ownership Audit

MARCH 1, 2022

Report Summary

BACKGROUND

Process ownership is a key component of information technology (IT) governance. Within process ownership, management defines and implements IT processes with clear owners, and with roles and responsibilities integrated into business and decision-making.

The Open City and Technology Branch (OCT) is the primary group responsible for governance and operations of the City's IT systems, although other groups such as Edmonton Transit Service, Waste Services, and Corporate Procurement and Supply Services have some responsibility for IT within their areas.

AUDIT OBJECTIVE & SCOPE¹

We assessed the effectiveness of OCT's process ownership practice area, including supporting frameworks, policies, directives, and procedures. We did not evaluate IT operations outside of OCT.

WHAT WE FOUND

OCT implemented an IT governance framework based on best practices and has good process ownership practices. We examined seven criteria related to process ownership and six had good practices in place, particularly the IT control environment, cyber security awareness, and communication of policy updates.

However, we found that OCT has not maintained its IT governance framework for several years. They have not fully performed a maturity gap analysis and have not updated framework-related documentation such as the IT Risk Management Program. Also, OCT has not updated formal ownership for each of the IT practice areas.

¹ We conducted this engagement in conformance with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

RECOMMENDATION

We recommend that OCT update and fully implement its IT governance framework. This should include a gap analysis, the Risk Management Program, and assignment of ownership for each IT practice area.

WHY THIS IS IMPORTANT

An up to date IT governance framework can help reduce risks such as unclear accountability, inconsistent practices, and misalignment between current and planned activities.

IT Process Ownership

IT GOVERNANCE FRAMEWORK

IT governance consists of the leadership, organizational structures, and processes that help the enterprise's IT function to sustain and extend the organization's strategies and objectives.

These elements are frequently combined into a cohesive IT governance framework, which is intended to bridge the gap between control requirements, technical issues, and business risks. It also helps navigate clear policy development, enable business alignment, increase the value obtained from IT, and guide the maturity of IT governance.

OCT BRANCH AND PROCESS OWNERSHIP

The Open City and Technology Branch (OCT) is part of the Financial and Corporate Services Department. It is the primary group responsible for governance and operations of the City's IT systems. In recent years, other groups such as Edmonton Transit Service, Waste Services, and Corporate Procurement and Supply Services have assumed increasing responsibility for IT within their areas.

When OCT adopted COBIT 4.1 as its IT governance framework, it divided the IT function into 17 practice areas, one of which is process ownership. Within this practice area, IT processes are defined and implemented with clear owners, and with roles and responsibilities integrated into business and decision-making processes.

Recommendation: Maintain IT Governance Framework

RECOMMENDATION

We recommend that OCT update and fully implement its IT governance framework. This should include a gap analysis, the Risk Management Program, and assignment of ownership for each IT practice area.

KEY FINDINGS

OCT adopted COBIT 4.1 as the IT governance framework in 2015, to support the City in achieving its strategic plan. This framework is based on recognized international IT governance best practices. Some of the key elements of OCT's IT governance framework include the:

- IT policy environment
- IT Risk Management Program
- Annual maturity gap analysis
- Division of the IT function into 17 practice areas assigned to individual practice area owners

OCT has good process ownership practices, particularly the IT control environment, cyber security awareness, and communication of policy updates. One specific area with good practices was the quarterly cyber security phishing campaigns.

However, OCT has not maintained the IT governance framework. They have not fully performed processes such as the maturity gap analysis since 2017, and have not updated framework-related documentation such as the IT Risk Management Program since 2018. Also, OCT has not updated formal ownership for each of the 17 IT practice areas.

One challenge that has influenced the above finding is that there have been significant changes to the IT function since OCT implemented the framework, such as the amalgamation of two branches into the OCT Branch and movement of some IT responsibilities outside of OCT.

MAINTENANCE OF IT GOVERNANCE FRAMEWORK

OCT has not maintained the IT governance framework, which includes documentation and performance of key governance activities. They have not updated the IT Risk Management Program document and have not performed key activities such as the maturity gap analysis for several years.

IT Risk Management Program

OCT designed the IT Risk Management Program to be in alignment with the City's enterprise risk management program, as specified by COBIT 4.1. The IT Risk Management Program is one of the key documents that describes how OCT identifies, assesses, and responds to IT risks.

OCT last updated the IT Risk Management Program documentation in 2018. In practice OCT has made numerous updates to the IT risk reporting and approach since then. For example, the IT Risk Management Program notes that risk reports are provided to the CIO on a monthly basis, but in practice this is being done quarterly.

Gap Analysis

OCT management last updated the annual maturity gap analysis, intended to gauge process maturity and encourage continuous improvement in 2017. The gap analysis includes regular action plans and maturity measurement for each IT practice area. Performance measurement, improvement, and maturity are elements identified within the COBIT 4.1 framework.

**UPDATE IT PRACTICE
AREA OWNERSHIP**

With the adoption of COBIT 4.1 in 2015, OCT divided the IT function into 17 practice areas and assigned individual practice area owners.

While IT operational activities are still being performed, structural and personnel changes within OCT have resulted in the listing of formal practice area owners being outdated. OCT has not formally updated IT practice area ownership since 2017.

For example, project management activities are still being performed but the person listed as owner of the practice area is no longer in that role. Also, enterprise architecture and business relationship management activities are still being performed, but not by standalone teams as they did in the past.

Since practice area ownership was formalized in 2015, the City has also gone through many IT-related changes, including:

- The creation of the Open City and Technology Branch, which combined the previous Open City and Innovation Branch with the IT Branch
- Increased responsibility for technology taken on by other City groups (e.g., Edmonton Transit Service, Waste Services, and Corporate Procurement and Supply Services) leading to a more decentralized approach to IT
- The development of Enterprise Commons² outside of but in collaboration with OCT
- OCT leadership changes

WHY THIS IS IMPORTANT

An up to date IT governance framework can help reduce risks such as unclear accountability for IT practice areas, inconsistent operational practices, and misalignment between current and planned activities.

² Enterprise Commons is the City's name for a new common workplace for employees to access HR, Finance, and Supply Chain tasks. It will replace the City's current enterprise resource planning software.

**RECOMMENDATION AND
MANAGEMENT RESPONSE**

We recommend that OCT update and fully implement its IT governance framework. This should include a gap analysis, the Risk Management Program, and assignment of ownership for each IT practice area.

Responsible Party

Branch Manager of Open City and Technology Branch



Accepted by Management

Management Response

The Open City & Technology Branch accepts the finding from the Office of the City Auditor. In order to update and fully implement the OCT IT governance framework, the Open City & Technology Branch will perform the following activities:

- 1) The existing COBIT 4.1 reference model for IT governance will be assessed relative to other models to determine if it is still appropriate for use by the City.
- 2) Existing IT governance documents will be assessed for currency and alignment with the selected reference model. Documents will be updated as needed and renewed so that they are in concurrence with any changes to the governance model adopted as a result of Action 1 above. This includes a renewal of the OCT Technology Risk Management Program document.
- 3) IT Governance Practice Areas serve as a guide to assign the appropriate Director as the owner for individual process and control objectives within the specific

business area. Director level ownership of practices within OCT business areas will be determined and documented.

- 4) Once assigned OCT will perform a gap analysis of OCT IT governance processes..
- 5) Operationalize the IT governance framework and its processes so that it remains current.

The Open City & Technology Branch wishes to reiterate that the scope of control regarding IT governance outlined above is limited to the Open City and Technology Branch. This remediation effort will focus on OCT specifically and will not update the IT governance practices in other Departments or Branches who are operating IT services on behalf of the City.

Implementation Date



June 30, 2024

ACKNOWLEDGEMENT

We thank OCT staff for sharing their knowledge and time with us throughout the audit. We greatly appreciated it.