

Systems to Manage a Comprehensive Inventory of IT Applications

IT Disaster Recovery Program

Technology and Innovation

Report of the Auditor General
December 2023

**Assessment of
Implementation Report**

**Auditor
General**
OF ALBERTA

The logo for the Auditor General of Alberta, featuring a stylized orange and white graphic element resembling a corner or a bracket.

About our Assessment of Implementation Report

Management is responsible for implementing our recommendations. We examine implementation plans and perform procedures to determine whether management has implemented our recommendations when management has asserted they have been implemented. We repeat our recommendations if we do not find evidence they have been implemented. We may also issue new recommendations for matters that come to our attention during our assessment.

Our assessments of implementation are conducted under the authority of the *Auditor General Act*. The Office of the Auditor General applies Canadian Standard on Quality Management 1. Accordingly, we have maintained a comprehensive system of quality control, including documented policies and procedures regarding compliance with applicable professional standards and applicable ethical, legal, and regulatory requirements.

Our office complies with the independence and other ethical requirements of the Chartered Professional Accountants of Alberta Rules of Professional Conduct, which are founded on fundamental principles of integrity and due care, objectivity, professional competence, confidentiality, and professional behaviour.

Outstanding Recommendations

Assessment of Implementation Report

Systems to Manage a Comprehensive Inventory of IT Applications IT Disaster Recovery Program

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(May 2017 and November 2019)

Summary of Recommendations

In July 2023, we completed our assessment of implementation of two recommendations from our May 2017 and November 2019 audits of the department's³⁴ processes to manage its IT application inventory across government and its IT disaster recovery program. We found both recommendations have been implemented.

IMPLEMENTED Recommendation:

Establish a comprehensive inventory system for information technology applications

IMPLEMENTED Recommendation:

Improve recovery of critical information technology applications

³⁴ Our original recommendations were made to the Department of Service Alberta. However, after government reorganization in 2022, the recommendations were assigned to the Department of Technology and Innovation.

Recommendation:

Establish a comprehensive IT application inventory system

IMPLEMENTED

Context

In 2017, we audited whether the department had effective processes and systems to establish and maintain an inventory of IT applications used across departments.³⁵

Across government there are over one thousand IT applications used by departments. Having a comprehensive inventory of these applications is crucial to knowing where government's investments in IT have occurred and where further investment is needed to maintain and eventually replace aging applications. Also, knowing what applications are in use across the government's vast IT infrastructure is important for data security, and can help to avoid wasteful investments implementing duplicate IT applications.

In 2017, we found that the department did not have a comprehensive inventory of IT applications used across government—only a partial list existed. We also found duplicate IT applications existed, and the department's project to create an IT application inventory did not use a formal project management approach.

Our current findings

The department has implemented our recommendation to develop a comprehensive inventory system of all IT applications used across government, with supporting processes to maintain the inventory.

The department developed a database to identify and track information for over 1,500 IT applications across government. This database is available to all departments and tracks general information about applications as well as information on ownership, risk and security, criticality and disaster recovery.

The department also developed a process to maintain the information in the database. Application owners across government submit updates or changes to their applications, where relevant. The department can then review the information and make applicable updates to the database.

³⁵ Our audit inquiries were restricted to IT application inventory processes that occur within the government's corporate network of departments and did not include IT services in the ministries' agencies, boards, and commissions.

Recommendation: Improve IT disaster recovery processes **IMPLEMENTED**

Context

In 2019, we followed up on our outstanding recommendations from 2014 to improve the government's IT disaster recovery capabilities. Albertans require that IT applications and systems that provide critical government services be restored as soon as possible after a disaster.

We found the department lacked processes to identify the most critical applications to Albertans and to ensure they were available when needed. As a result, we repeated our recommendation to identify critical IT applications across government and test recovery of those applications within required timelines.

Our current findings

The department has implemented our recommendation to identify the most critical IT applications across government, identify recovery timelines and test critical applications to ensure they can be recovered within these timelines.

The department developed criteria to assess whether an IT application is critical. The department also developed a "Recovery Time Assessment Tool" to help departments and business owners assess their applications for criticality.

Based on the criteria for criticality, the department identified the critical applications across government. The department also defined a required recovery time for these applications. The department requires documented disaster recovery plans for each critical application.

The department developed an annual disaster recovery exercise to test recovery of IT applications. We reviewed the 2022 post-exercise report identifying the applications and services that participated in the test and the test results. Based on our review and testing, almost 90 per cent of the government's critical applications were successfully tested. The remaining critical applications were either new or are scheduled to be tested prior to or as part of the next annual exercise.