CITY OF VANCOUVER

Internal Audit Summary Report

April 23, 2018

Software Licence Audit

Background

A software licence is an agreement between the software vendor and software user that outlines the user's entitlement to use the software. Software licences may take various forms, including a single user licence, a network licence, or a site licence that allows users to run software at the same time.

The value of the City's software assets at 2017 year-end was $116 million. There are over 500 software applications, including multiple versions of the same software in the City's inventory. Larger licences such as Microsoft licences are more tightly managed and regularly reviewed.

Not all software applications installed on the City's IT assets require a software licence. This includes applications that are developed in-house and freeware such as Adobe Reader.

Cloud software applications are run over the internet without the need to install it on a computer. Due to privacy requirements personal data stored in the cloud is required to stay in Canada.

The processes pertaining to the procurement, maintenance, and decommissioning of software are handled by multiple groups. Information Technology manages software for most City departments, with the exception of the Vancouver Police Department (VPD) and the Vancouver Public Library (VPL). VPL manages its own software purchases, distribution, and inventory. In addition to these groups there are also dedicated staff that manage specialized or departmental-specific software and related user access such as SAP.

Scope

Our audit objective was to provide reasonable independent assurance that the existing internal controls and business processes relating to software licences are adequate and effective. Our work looked at management of City's software assets and reviewed:

- Governance and responsibilities for managing software licences;
- Processes in place to track software assets;
- Inventory controls and other controls around maintaining compliance with software licence terms;
- Contracts and other documentation supporting licence entitlement; and
- Authorization of software purchases and installations.

The audit is not designed to detect fraud. Accordingly there should be no such reliance.

Conclusion

Software management and inventory controls require improvement. Management has committed to strengthen internal control and enhance operational efficiency by improving records management and employee education on cloud software and privacy requirements.

The more significant findings and recommendations are:

E.1 Educate City employees on cloud software and privacy requirements

A review of the City's credit card purchases found multiple purchases of cloud software for business use. These purchases of cloud software used for scheduling, surveys and project management did not follow the proper software procurement process.

Software users are not aware if the servers used by the cloud service providers reside in Canada. This is important as privacy legislation for securing personal information requires that this data not leave Canada. We did not find evidence of personal information being stored in these cloud solution but there is a risk of additional cloud software being used by unaware employees.

There is a need to educate employees on how to procure cloud software and ensure the software meets privacy requirements. To ensure departments employ a consistent and comprehensive approach in considering cloud software, the Chief Technology Officer should establish an effective communication process to educate City employees regarding cloud software.

E.2 Establish a central repository for software licence contracts

The City needs to establish central storage of software licence information such as contracts and other supporting documentation outlining the agreement between the City and software vendors. A list of key contacts owning the licence information for each software application should be readily available.

Findings and recommendations have been discussed with appropriate management and work is underway to address them.