

## Chapter 29

# Saskatoon Regional Health Authority – Protecting IT Infrastructure

### 1.0 MAIN POINTS

This chapter describes our follow-up of management's actions on three recommendations we first made in our *2010 Report – Volume 2*, Chapter 11D on Saskatoon Regional Health Authority's processes to protect its IT infrastructure.

By March 31, 2017, Saskatoon RHA had implemented all three recommendations. It implemented processes to monitor security of its IT systems, patch its computer systems and network, and better restrict user access to its IT systems and data.

### 2.0 INTRODUCTION

Saskatoon RHA makes significant use of IT systems. For example, it uses IT systems for lab results, medical imaging, patient registration, and billing. It also stores confidential patient data in its IT systems. Its IT systems and data reside on its network and computer equipment. Maintaining the security of Saskatoon RHA's IT infrastructure keeps its systems accurate and timely, and protects patient data from unauthorized access.

In our *2010 Report – Volume 2*, Chapter 11D, we assessed Saskatoon RHA's processes to protect its IT infrastructure and made six recommendations. By September 2014, Saskatoon RHA had implemented three recommendations and was working towards implementing the remaining three recommendations. This is our third follow-up on these three recommendations.<sup>1</sup>

To conduct this review engagement, we followed the standards for assurance engagements published in the *CPA Canada Handbook – Assurance*. To evaluate Saskatoon RHA's progress towards meeting our recommendations, we used the relevant criteria from the original audit. Saskatoon RHA's management agreed with the criteria in the original audit.

To perform our follow-up on our recommendations, we interviewed Saskatoon RHA's staff, examined IT policies, reviewed reports about the implementation status of the IT policies, and analyzed information from its IT systems.

### 3.0 STATUS OF RECOMMENDATIONS

This section sets out each recommendation including the date on which the Standing Committee on Public Accounts agreed to the recommendation, the status of the recommendation at March 31, 2017, and Saskatoon RHA's actions up to that date. We found that by March 31, 2017, Saskatoon RHA had implemented all three outstanding recommendations.

<sup>1</sup> *2012 Report – Volume 2*, Chapter 49 and *2014 Report – Volume 2*, Chapter 54.



### 3.1 Monitoring of Security Adequate

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We recommended that Saskatoon Regional Health Authority monitor the security of its information technology infrastructure. (2010 Report – Volume 2; Public Accounts Committee agreement January 19, 2011)

**Status** – Implemented

Saskatoon RHA has implemented processes to monitor security of its IT infrastructure. It uses various security software to monitor its IT systems and network. The software analyzes system and network logs and identifies possible security issues (e.g., security attacks, network breaches).

We found staff reviewed and acted upon reports of possible security issues. They also monitored compliance with IT policies. For example, staff performed periodic reviews of user accounts and disabled inactive accounts in compliance with policy.

### 3.2 Computer Equipment Configuration Kept Up-to-Date

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We recommended that Saskatoon Regional Health Authority configure and update its computers and network equipment to protect them from security threats. (2010 Report – Volume 2; Public Accounts Committee agreement January 19, 2011)

**Status** – Implemented

We found Saskatoon RHA has improved the configuration of its IT systems and network equipment to protect them from external threats. It has processes in place to update (i.e., patch) its servers and network equipment (e.g., firewalls, routers) on a regular basis (e.g., semi-annually).

### 3.3 User Access Restricted

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We recommended that Saskatoon Regional Health Authority adequately restrict access to information technology equipment, systems, and data. (2010 Report – Volume 2; Public Accounts Committee agreement January 19, 2011)

**Status** – Implemented

Saskatoon RHA has processes to grant and remove network user access to its staff. The RHA employs about 15,000 individuals.

For 30 users who left Saskatoon RHA's employ that we tested, all had their network access appropriately removed.