

To: Board of Management

From: Director, Finance and Technology

Subject: **TORONTO ZOO NETWORK RE-BUILD PROJECT**

Date: 2021-02-08

SUMMARY:

This report discusses the recommendation on Phase II of the Network Re-build project. The Network Re-build project will establish a new network at the Toronto Zoo providing internet access to staff for operations and Wi-Fi services to guests across 80% of Zoo site as shown in Appendix A. This network upgrade will significantly improve operating efficiency and guest experiences. Internet access is especially important during the current COVID-19 pandemic situation when staff rely heavily on communications through digital platforms and when the Zoo engages guests through virtual experiences.

The existing network, built in 1999 with a speed of 80 megabits per second, is insufficient to support efficient operations for all staff and guests. Furthermore, the existing network has many points of failures causing frequent outages. Without internet access at animal exhibits, animal care staff are using paper records for animal care data. The network is the foundation for many critical Zoo technologies. Many existing software applications at the Zoo are at the end of life and at risk of losing vendor support. Technology improvements will not be able to proceed without this network as the foundation.

Professional services were engaged in Phase I of this project to discover the set up of the existing network and redesign a new network with best practices. The recommendation for Phase II is based on a network discovery and redesign report completed by Bell Canada (Bell) in Phase I. The solution would include a complete network build with Cisco hardware, firewalls, routers, switches and access points. The plan also includes utilizing the Bell fiber connection currently in place for Lumina and a 5G mobile provider for back up internet connection. This will give the Toronto Zoo full redundancy in our network and internet connections.

RECOMMENDATIONS:

The Director, Finance and Technology recommends that:

- 1) The Board of Management authorizes the CEO of the Toronto Zoo to purchase the equipment, professional services and supporting licenses for the Phase II of the Network Re-build project within a budget of \$1.95 million dollars (including a contingency of \$0.1 million dollars) from OnX, which is the vendor of record at the City of Toronto; and**

- 2) The Board of Management authorizes the CEO of the Toronto Zoo to apply up to \$0.85 million dollars of designated funds from the Toronto Zoo Wildlife Conservancy to this project.

FINANCIAL IMPACT:

Phase II of the Network Re-build project requires up to \$1.95 million dollar capital funding, supported by the Information Systems budget up to \$1.1 million available in 2021 budget and up to \$0.85 of designated fund from the Toronto Zoo Wildlife Conservancy. The funding relating to 2021 capital projects has been included in the 2021-2030 10-Year Capital Plan previously approved by the Board of Management.

BACKGROUND:

The Zoo identified the need to upgrade its dated network in 2018 and ran underground cable fibre around Zoo site in 2019. The Zoo has established its first limited Wi-Fi network for a for the Terra Lumina experience since December 2019. Having network connection across the Zoo site will enhance operations for animal care, staff and volunteers, and improve guest experiences. The network upgrade project was included as part of the initial 2020 Capital Budget Plan for the Information Systems budget which was subsequently delayed and reduced as part of the City-Wide slowdown for capital expenditures at the onset of the COVID-19 pandemic. This project subsequently resumed Phase I – The Discovery and Design Phase in July 2020 with the assistance of the City's network team. In October 2020, Bell completed the network discovery and redesign report which establishes a framework to guide the Zoo through the next stages of this project and prepare for a more technologically advanced future.

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Appendix A

