Élections Québec technical requirements regarding Internet connections for educational institution polling station kits

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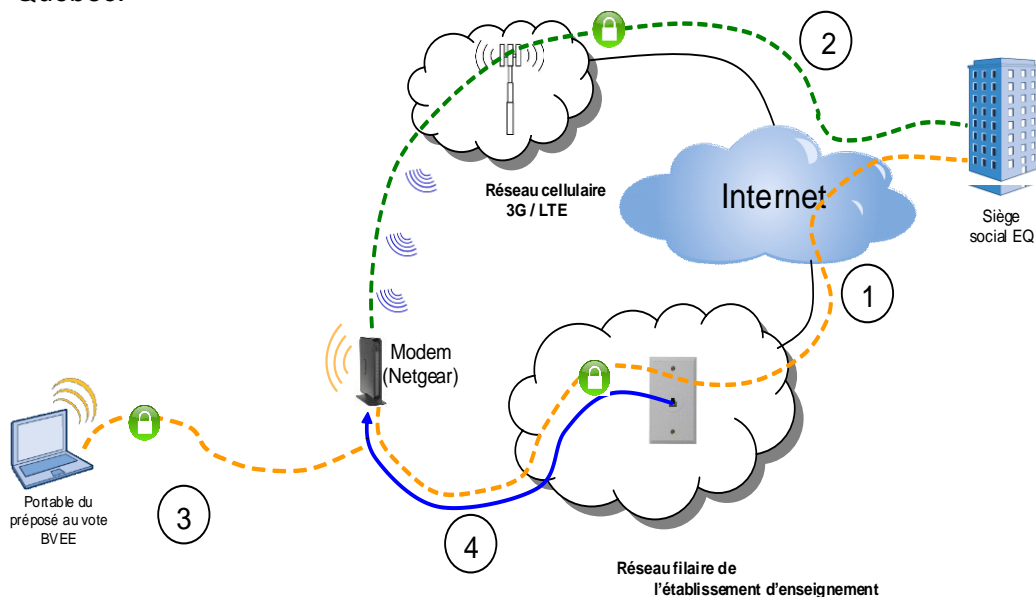
Introduction

This document provides a brief summary of the solution used for polling stations located in educational institutions and lists Élections Québec's requirements pertaining to the Internet network connections that educational institutions must supply to enable students to vote.

This document was prepared for the educational institution's technical staff, and more specifically its network administrator and/or IT network security specialist.

Background

For more context, we strongly suggest that you read the document *Guide for information technology personnel in educational institutions*.

The following diagram outlines the solution put in place at polling places by Élections Québec.

Réseau cellulaire 3G / LTE

Internet

Siège social EQ

Modem (Netgear)

Portable du préposé au vote BVEE

Réseau filaire de l'établissement d'enseignement

Translation of used terms

Portable du préposé au vote BVEE: Élections Québec polling attendant's laptop
Modem (Netgear): Netgear modem
Réseau cellulaire 3G/LTE: 3G/LTE cellular network
Siège social EQ: Élections Québec head office
Réseau filaire de l'établissement scolaire: Educational institution's wired network

A Netgear modem is installed in each room where a polling station is set up. Modems may be installed in more than one location in a given educational institution. Each Negear modem is identified as NET-nnn. The modem is a Netgear MBR1516 Turbo Hub.

The modem establishes a link with the Internet (via its WAN port) using the institution's wired network (link 1 in the diagram) by default since it has a greater capacity. The cellular Internet connection (link 2 in the diagram) will be used as a back-up measure in the event that the wired network fails or no such network can be supplied by the educational institution. The modem supplies wireless (Wi-Fi) network access for Élections Québec's laptops (link 3 in the diagram).

Technical requirements

Below are the technical requirements for the Internet service provided by the educational institution (link 4 in the diagram) in each location where a Netgear modem is installed.

- RJ45 network cable or RJ45 network jack
- Capacity of at least 10Mbps/10Mbps
- IP address provided by a DHCP server belonging to the institution, but which **does not fall** within the following range: 192.168.**159.0** to 192.168.**159.255**
- Continuous service (not on-request) available during polling station operating hours (9:30 a.m. to 8 p.m., unless special dispensation is granted)
- Technical support for Élections Québec personnel provided by the educational institution's staff in the event of wired network problems