Understanding the Network Equipment at Your Library

The networking equipment found at each Member Library includes four devices that together make up what is internally referred to as 'the network' at each library. Understanding what these devices are, and how they work together, is an important part of understanding the network at your library.

What is each device, and what is its function?

The network equipment at each Member Library is responsible for maintaining a consistent and secure network connection at the library, with each piece playing a critical, and unique, role in sustaining reliable and secure internet connections for Member Libraries and their patrons.

Juniper Box

The Juniper Box (also referred to as the SuperNet Box) is the piece of equipment that turns the fibre optic internet signal that comes into the library into a signal that can be read by the rest of the networking equipment. It is also where our internet provider institutes their policies, such as governing internet speeds to match that of the service purchased.

As the most sensitive piece of networking equipment, it is the only piece of network equipment not managed by NLLS. Instead, it is fully managed by SuperNet (Bell Canada) and their technicians.

FortiGate

The FortiGate Box is a firewall and is the location where the internet signal is divided into the staff and public networks. This box is also the piece of equipment that provides the security to our networks, as well as creates the connection between Member Libraries and the servers at Headquarters.

Network Switches

Member Libraries who have more computers and devices than there are network ports on the FortiGate will have network switches. Network Switches act as a multiplier with the purpose of providing internet connections to multiple computers from a single port on the FortiGate.

Smaller Member Libraries will find that they don't have Network Switches because they have enough network ports on their FortiGates to support all of their computers. In contrast, larger libraries will find that they can have multiple Network Switches.

AP Unit

The AP Unit (also referred to as a wireless router) is the piece of networking equipment that broadcasts the wireless signal throughout the library. It should be noted that the wireless signal produced from an AP Unit will lessen the further a user goes from the unit, with usable functionality often being limited to the library space and not being able to extend to the exterior the library. Multiple AP units can be connected together to provide better wireless coverage both within the library and outside the library.

Who is responsible for the network equipment?

As the administrator of the network at each Member Library, NLLS is responsible for the networking equipment and in many cases is also the owner of the equipment.

Because of the sensitive nature of each piece of networking equipment at Member Libraries, it is critical that Member Libraries **DO NOT** move or make changes to the equipment or associated wiring, install new equipment, or allow third parties to work on the equipment without prior express permission from the TSI Department.

If a Member Library determines that work needs to be conducted on networking equipment at their library, reach out to the TSI Department for assistance.

Questions?

If you have any questions, contact the TSI Department at ask@nlls.ab.ca.