CASE STUDY

Canadian School District Enhances Remote User Security and Drives Operational Efficiencies with FortiSASE

Operating across the city of Guelph in Ontario, Canada, the Upper Grand District School Board (UGDSB) serves more than 36,000 students through 65 elementary schools and 11 secondary schools. The district comprises approximately 4,000 employees who work across 76 sites. UGDSB’s vision is to be recognized as a leader in creating unparalleled, agile, and inclusive learning experiences for all.

Defending a Dissolved Perimeter

Ryan Buhrow is the Enterprise System Engineer at UGDSB. He explains that the district’s key cybersecurity challenge is to protect staff and students across an environment where the security perimeter has largely disintegrated. “We need to provide the highest levels of security to our users regardless of where they are working: in school, at home, or elsewhere,” he says.

This task is made more challenging by the large number of devices supported by the district. Buhrow explains: “We maintain roughly 3,000 Windows devices, 3,000 Macs, and 4,000 iPads. Chromebook is our main platform, however, and we currently have 28,000 of these devices in service.”

Given the large number of endpoints in circulation, UGDSB found certificate management a considerable challenge. As a result, the district started to consider a secure access service edge (SASE) architecture as a solution. The search was given added urgency in 2021 when Ontario’s Ministry of Education issued a reference architecture to school boards requesting a cloud-based endpoint protection strategy. “That was one of the main reasons we were interested in SASE,” says Buhrow. “The Ministry of Education also required us to have visibility into all traffic, including encrypted traffic, and we had to do this at scale with the least possible loss of performance for the user experience.”

Putting a Fortinet Foundation in Place

The district has partnered with Fortinet for many years and has already deployed a wide range of Security Fabric solutions, including Fortinet Secure SD-WAN software-defined wide area networking, FortiGate Next-Generation Firewalls (NGFWs), FortiSwitch secure Ethernet switches, FortiMail email security, FortiAnalyzer logging and analytics, FortiManager centralized management, FortiNAC network access control, FortiExtender cellular gateways, and the FortiClient Endpoint Management Server (EMS).

Introduced in 2017, the Fortinet Secure SD-WAN is deployed across all 76 district sites and two office buildings. The solution enabled UGDSB to replace expensive
multicloud and multi-deployment models. This is where Fortinet’s security-first approach becomes critical. By providing network and security capabilities from the cloud, Fortinet Secure SD-WAN ensures that the district’s security requirements are met without compromising network performance or user experience.

The Benefits of a Single-Vendor Approach

“The single-vendor approach has been instrumental in ensuring that our network infrastructure is secure. With Fortinet, we could meet the Ministry of Education’s requirements simply by adding a security layer rather than bolting something on the side. FortiSASE is just an extension of the existing Fortinet Security Fabric, with the same policies and consistent operations.”

Ryan Buhrow
Enterprise System Engineer
Upper Grand District School Board
The high level of integration between the FortiSASE and the district’s broader Security Fabric is also seen as a key benefit. “It is highly important that we can add security solutions to our environment without having to reconfigure everything for third-party vendor software,” says Buhrow. “The simplicity of use is also a major benefit with Fortinet. Everything on the Fabric has a similar feel and interface, which makes things very easy for my team.”

As hoped, FortiSASE has also made it easier to manage device certificates by making them available on a single client. Overall, the FortiSASE solution has delivered a 50% reduction in staff hours for solution maintenance and operations, enabling the IT team to focus on other value-adding tasks.

**Empowering Staff and Students**

Ultimately FortiSASE is helping the district to provide a better service to staff and students alike. “FortiSASE has extended the highest levels of protection to remote users with secure access to school applications from everywhere with the same level of security and performance whatever the devices used. With Fortinet, we are confident that our people can work securely and effectively no matter where they are,” says Buhrow.

The district predicts that it will work with Fortinet long into the future. Buhrow concludes: “It is important for the Upper Grand District School Board to be able to have solutions provided by Fortinet so that we can continue to leverage our existing Fortinet infrastructure to provide our staff and students a secure learning environment where they can learn from anywhere.” Ultimately, the district aims to completely replace VPN connections for remote working with secure private access from FortiSASE for all 36,000 students and 4,000 staff.