



Wild Rose School Division

- Full-stack Meraki solution provides better experience for students and staff
- Future-proofing their environment with Wi-Fi 6 and multigigabit switches
- Keep students safer with smarter security cameras across the division



Supporting around 4,700 students and 500 employees across 20 schools in Alberta, Canada, the IT team at Wild Rose School Division (WRSD) strives to provide next-generation learning with always-on connections, the best experiences for students and teachers, and improved physical security across the division. With each student bringing two to three devices to school everyday, on top of increased requests to continuously add new IoT devices and learning technologies to the network, the IT team knew they needed to future-proof their environment. But as a lean team with an endless number of technology projects, how was Jaymon Lefebvre, Director of IT Services, going to find a solution that could support increased density and IoT devices for years to come?

A decade ago, Lefebvre knew they needed to invest in access technologies that would meet the growing connectivity demands from students and teachers. With a legacy system in place that

couldn't support increased network traffic, Lefebvre decided to search for a new solution. They originally went with a traditional controller-based wireless product, and were two months into the deployment when they learned about Cisco Meraki at an education conference. They stopped the deployment project to test Meraki, and within two days they decided to cancel their initial project and deploy Meraki instead. WRSD went on to install more than 380 Meraki MR access points (APs), 70 MS switches, and 200 MV smart cameras throughout the 20,000 square kilometer school division over the next few years.

Future-Proofing the Network with Wi-Fi 6

Lefebvre decided to deploy Meraki access points and switches for several key reasons. With fantastic but limited IT resources, the ability to easily manage the network across distributed sites was a top priority, but was especially challenging with their original controller-based system. Through the cloud-managed Meraki

dashboard, WRSD's team can configure and manage the network from anywhere through a web browser, dramatically simplifying day-to-day network maintenance and troubleshooting. The simplicity of deployment was also a selling factor, Lefebvre described the multi-site deployment as, "Plug and go. Deployment at a level of ease never seen before in wired Ethernet gear. There's no need to talk about time saving, because we didn't spend time on it at all."

With a cost-effective access solution that was easier to deploy and manage, Lefebvre realized several additional benefits with his deployment. Through the cloud, firmware upgrades happen automatically across the entire network, ensuring their devices are always secure. Lefebvre added, "We use to spend hours every day trying to discern what was happening across the network. It is incredible to now have all the information in one place, and we can use the time saved to bring superior access to our schools." Meraki's intuitive management also eliminates the need for specialized training and enables networking tasks to be completed much more quickly and easily through the cloud. "There are so many pluses with the Meraki solution," Lefebvre said. "It's a game changing technology. I struggle to think of a type of organization or an industry which cannot benefit from what Meraki offers."

"We predict a 20-30% increased density of devices year over year due to IoT and mobile, and need to leverage our existing access points to future-proof our environment."

- Jaymon Lefebvre, IT Director

Students today are no longer just using the internet passively; they are viewing videos, making recordings, using VR headsets, creating with Raspberry Pis, and learning with new applications. Each student is bringing two to three devices to school everyday, and they expect a seamless digital experience. This, in combination with an anticipated 30% increase in IoT devices over the next few years, led Lefebvre to start expanding and future-proofing their environment. He started deploying Meraki 802.11ax (also known as Wi-Fi 6) compatible APs to prepare for this growth of student and IoT devices. With Wi-Fi 6, the IT team can continue to support the current technologies used by students and staff, while getting classrooms ready to support Wi-Fi 6 technologies. To backhaul the high-bandwidth traffic coming from the Wi-Fi 6 APs, they also deployed multigigabit Meraki aggregation switches. Lefebvre recognizes that having a robust network backbone is crucial to support situations where higher throughput and density are required.

Keeping Students Safer with Smarter Cameras

With their access points and switches being managed from the cloud, Lefebvre was interested in other solutions that could simplify IT. When Meraki announced their new line of smart cameras, Lefebvre jumped at the opportunity to try them out. Their legacy camera

solution was extremely difficult to manage, with each school having its own disparate system with aging software and no vendor support. When they migrated to MV smart cameras, not only could they manage the entire division's cameras from one place, but they were also accessible from the same dashboard as their access points and switches. This eliminated the need for the IT team to manage several different systems, and allowed them to focus on delivering services for students.

The IT team's main role in the camera deployment is ensuring the cameras are up and running, while the facilities team and school leaders handle the day-to-day video monitoring and incident response. Lefebvre was able to easily provide access to facilities staff and principals through the Meraki dashboard so they can view footage for just the schools they need to. This also ensures that principals and other viewers have a consistent experience when using the cameras, and can help each other out when needed.

As an education institution, the cameras are placed around schools for incident response, so if there is a case of bullying, graffiti, or something else, the appropriate delegate can easily see what happened and respond accordingly. Using the Motion Search feature, facilities and principals can quickly find an incident when it occurred, without having to watch hours of video footage. Mike Lundstrom, Director of Plant and Operations, added, "Meraki cameras have been a game changer for our Facilities Department. The quality of the cameras has eliminated the negative comments we used to get with our legacy system and the amount of support our facilities team needs to provide to end users has dropped to virtually nothing. The cameras and the dashboard just work." With a smarter camera solution, many members of the WRSD staff can help ensure the safety and security of students across the schools.

"What we especially love about Meraki is that if we proactively upgrade to future-proof our network instead of waiting for complaints, we can provide classrooms and learning environments that are optimal for exploration."

- Jaymon Lefebvre, IT Director

The Schools of the Future

While providing reliable access and safe class environments is extremely important, it is only part of the equation for WRSD. Because of the remote nature of Alberta, Canada, most students do not have access to the internet at home. Therefore, they rely on the school network not just to complete assignments, but to download offline content and update their devices. Plus, while it used to be customary for learning to only take place in the classroom, now learning can happen anywhere; while running through the hallways,

playing outside, or riding the bus home. Lefebvre explained, “We can no longer control what applications students use or where students are logging on. So, when a new bandwidth consuming game hits the market, like the Google Earth version of Carmen Sandiego, students are normally the first to find it and can easily overpower the network if the right infrastructure is not in place. So, it’s not just a network that serves business applications, it provides a connected community for our students and staff.” On the flip side, ensuring that teachers trust the network is paramount to them experimenting with new technology in the classroom. Lefebvre added, “Teachers rarely call IT to ask if their classroom can support 60 or 90 connected devices, and generally they will try something once, and if it fails miserably and publicly it leaves a bad taste in their mouths. Supporting and fostering a culture of experimentation and trust between faculty and technology services is key for our schools.” With Wi-Fi 6 and the growth of new classroom technologies, Lefebvre and his team can start building the classrooms of the future today.