



Arbor Park School District

- MX security appliance provides enhanced network visibility
- Group policies keep students off the Internet on state testing days
- Alerts allow the IT team to be proactive in solving issues



When David Termunde joined Arbor Park School District as Chief Technology Officer, he encountered a network that lacked complete visibility, something he knew he needed in order to provide the best experience for students. His goal was to deploy a reliable network across the district's four schools and school bus transportation center to better support 1,300 students and 210 teachers and staff. With only four people on the IT team, Termunde wanted a solution that would be easy for a lean team to manage and troubleshoot, and, because the IT team doesn't have a full-time security engineer, it had to be something they could install and manage on their own, without expensive training.

Termunde had prior experience using Cisco Meraki, so when he joined Arbor Park, he knew it would be a great fit for the district's needs. He decided to start with a solution that would provide the visibility they had been lacking: an MX250 security appliance. The MX250 replaced three existing network items including a firewall, router, and switch.

Because each building is connected over the WAN, the school district only needed one firewall to support all five locations. Termunde and his team installed the MX in the middle of the school year on a Thursday evening. They had planned to be on-site for several hours, but by pre-configuring the hardware in the Meraki dashboard before it arrived, along with the easy installation process, the MX was ready to go in an hour and a half.

Previously, the team didn't have any visibility into the clients on the network. Termunde explained, "The Meraki MX populates all of the clients on the network. We installed on a Thursday and when we checked back the next day, we were able to see and sort Apple devices, Chromebooks, PCs and other clients that were on the network. That data has been really beneficial." They now have a complete overview of the endpoints on the network. They are even able to quickly identify bottlenecks, catching three in the first week of using the MX. With this additional visibility, Meraki has enabled the IT team to make informed decisions about their current network infrastructure and plan for future projects.

“Is our internet fast enough? Do we need more speed? Where are the bottlenecks in our network? We were able to answer these questions thanks to the Meraki MX.”

— David Termunde, Chief Technology Officer

The Arbor Park IT team uses a variety of features on the MX. For Termunde, content filtering is incredibly important. It is required for CIPA compliance, which is needed for the district to receive their E-rate funding. He also works closely with teachers to whitelist and blacklist websites accordingly. Traffic shaping rules cap Netflix and Hulu bandwidth to ensure equitable access to the Internet for the entire student body. During state testing, Termunde sets a group policy to meet the recommended network requirements provided by the testing vendors. This allows the students to have uninterrupted connectivity while testing. The Meraki dashboard allows for viewing of any clients or network issues during testing so the team can be proactive before a problem arises.

The Security Center in the dashboard aggregates intrusion detection and retrospective malware detection threats and provides a single view illustrating any potential threats on the network. Termunde and his team receive notifications when threats occur, allowing them to quickly pinpoint the problem clients and clean or reimage if necessary. The Meraki solution also eliminates the need for duplicate and expensive client-based protection.

After having so much success with the Meraki MX, the team decided to install two 8-port Meraki MS switches to manage the schools' servers. Each server is plugged into a switch port, enabling the team to receive alerts if a server loses connectivity. For example, the HVAC system for the entire district is managed through the network, so Termunde often finds out when an HVAC computer goes offline even before the maintenance department does. “We try and be as proactive as possible, and without Meraki we wouldn't be able to do that. Before, we'd have to wait for someone to call and tell us about an issue on the network and now, we find the issues before the end-user,” Termunde stated.

In the future, the Arbor Park IT team plans to replace their core infrastructure with Meraki MS switches, with a 48-port switch at each school site for additional network monitoring capabilities. As a part of larger project, Termunde is investigating implementing other Meraki devices including switches, cameras, and MDM. Until then, Termunde will continue to take advantage of the enhanced visibility Meraki has provided. “The data our MX has given us has really helped us move the network forward,” he said.