

CASE STUDY

Pivoting rapidly to remote work and hybrid learning through an exemplary network



155

schools over 750sq miles

80,000

students enrolled

7,000+

Meraki MR access points

Industry

 K-12 Education

Location


 Golden, Colorado

Products

 Security & SD-WAN (MX)

 Wireless LAN (MR)

Solutions

 High-density Wi-Fi

Highlights

- In response to the COVID-19 pandemic, JeffCo Public Schools had to rapidly pivot to remote work and a hybrid learning model to keep staff and students safe
- The Meraki MX enabled rapid scaling of VPN access for staff, while the Z3 ensured help desk employees could provide tech support from their homes
- These devices, buttressed by an existing Meraki network, helped ensure a smooth transition

Overview

If you drive from Boulder southbound along Colorado State Highway 93, you'll enjoy breathtaking vistas of rolling foothills, mountain peaks, and alpine streams. At the end of the road you'll find Golden, a former gold rush town that now serves as the seat of Jefferson County, home to JeffCo Public Schools, the second-largest school district in Colorado and one of the 50 largest in the United States—with 155 schools spread out over 750sq miles, serving about 80,000 students.

Challenge

Ensuring a quality education for that many students requires the hard work and commitment of about 14,000 teachers and staff, who are all working towards a learning-centered vision that promotes more hands-on and skills-focused experiences for students. Underpinning that vision are core values, including a commitment to “exemplary performance” for both staff and students. For John Fuller, Wireless Network Engineer at JeffCo Public Schools, that means ensuring the exemplary performance of the district’s vast IT infrastructure—made up of approximately 7,000 wireless access points and other network hardware, as well as laptops and other devices issued to staff and students.

Despite the existing network, when John received the news that the entire school district had to pivot to remote working, he knew that VPN access to the district’s two data centers was going to be a key challenge. While students didn’t need a VPN connection to access course files, staff and teachers needed it to access work files and applications. The current network infrastructure could only provide access to 200 users at a time, and suddenly it needed to be able to support thousands. Additionally, help desk staff would need to be on hand to support employees with the transition, and that would require specialized hardware to ensure security over the phone.

Solution

At the time John was alerted to the dramatic shift, there was a Meraki MX sitting on his desk. He had intended to use it to gather network data for reporting purposes, but wondered if it could be used to scale VPN access for staff. John picked up the phone and called Clint Russell, Product Specialist at Cisco Meraki, to see if it could. Fortunately, Clint was able to confirm that the MX could help, and was also able to answer John’s questions about how to set it up. Working together with a data center architect, John and Clint were able to get the MX up and running that same day. Within hours, VPN access had expanded from 200 connections to 5,000.

At the same time, John had to think about how the employees setting up their remote work stations would get the support they needed. Fortunately, some help desk employees were already based remotely and had been set up with Meraki Z3 devices and desktop VoIP phones to ensure secure conversations. This meant staff could get the support they needed from day one of working from home. John was then able to order more Z3s to transition the rest of the help desk staff to remote work.

In addition to the MX and Z3, the existing Meraki network also made a big difference for John and his team. Even after setting up the MX, John’s team had to be on site daily as “essential staff” to make critical upgrades and changes to the network in order to support the district’s new

working and teaching model. Because the network was completely cloud-managed via the Meraki dashboard, John's team could hunker down at HQ to make the necessary upgrades and changes without putting the team at increased risk.

Having a robust network, along with other technology investments such as district-issued laptops for some students and staff, went a long way to ensuring the success of the new hybrid learning model that the district implemented to keep students and teachers safe. High school teachers, for example, were able to conduct in-person and remote instruction simultaneously over a live stream supported by the Meraki network.

Result

JeffCo Public Schools had set out to realize an ambitious learning-centered vision for its students built on values of integrity, valuing people, teamwork, and exemplary performance. Thanks in large part to their investment in technology, the district was able to rapidly pivot to a new, hybrid model of teaching and learning. With the MX to support rapid scaling of VPN access, the Z3 to support remote help desk workers, and a robust and reliable Meraki network, John and his team were able to keep the district on track toward realizing their vision. Additionally, John was able to benefit from the outstanding support of the Meraki team, who were on-hand throughout the transition to ensure success. Through quick-thinking and teamwork, John and the entire JeffCo Public Schools team can continue to deliver exemplary education for generations to come.

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Things were hectic the day we found out our entire staff had to start working remotely. I called Clint, our product specialist, and with his help we set up the MX within hours and increased our VPN capacity from 200 to 5,000 overnight.

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