



## Boulder Valley School District

- To have successful 1:1 and BYOD programs, the district needed a new network
- Deployed Meraki APs and switches across 56 schools to support 30,000 students
- With a future-proof network, BVSD can take on projects that improve learning



With 56 schools covering 500 sq. miles, Boulder Valley School District (BVSD), located between the foothills of the Rocky Mountains and the suburbs of Denver, Colorado, aims to provide unparalleled technology experiences across the district for its 30,000 students and 4,000 staff. As network demands,

speeds, and users continued to increase over the last few years, Andrew Moore, CIO, knew it was time to update their wired and wireless infrastructure to support the needs of the district.

### Future-Proofing the Network with Meraki and E-rate

In order to continue rolling out 1:1 device programs across the district and to meet the increased technology demands of students, Moore and his team needed to upgrade their outdated network

and get onto the latest Wi-Fi standard. Because BVSD planned on using E-rate funding to support their project, they were required to participate in a competitive bidding process. While several solutions could meet the standard requirements, only one won the RFP and met the long term goals of the district: Cisco Meraki. Moore explained, “As a K-12 school district, we had to ensure that the solution was supportable and financially viable in the long-term. In the end, we chose Meraki because of the overall technology and it met the value proposition we were looking for.” Therefore, BVSD was able to use their E-rate funding to acquire Meraki MR access points (APs) and MS switches to support the entire district.

Replacing the wired and wireless network at 56 schools without disrupting learning was no easy task. To best allocate resources and get students on the upgraded network faster, the team flipped one to two schools each weekend until the deployment was complete. On Friday nights, they would enter a school and remove all of the old gear. Then on Saturdays and Sundays, they would install and

test the new devices to ensure the school could resume as planned on Monday. APs were strategically deployed in buildings to support around 60 clients, including in classrooms, cafeterias, gyms, and open spaces. Their switching infrastructure is set up to support redundancy, with each school being connected to two sites, so that if one site goes down there are no interruptions in learning.

“Each student has devices that are connecting to our network. The densities are rising, the bandwidth is rising, and the infrastructure is now in place to handle that kind of connectivity.”

-- Andrew Moore, CIO

With some of the schools hosting 1:1 device programs, while others support BYOD, Moore needed to ensure all schools across the district had equitable access. They configured two SSIDs to support this: BVSD and guest. Students use BVSD for school-owned devices and authenticate with their school credentials. The guest SSID is available for all BYOD staff and student devices. The guest network prevents access to the main school network and requires a standard use agreement to log on. This ensures all devices that connect to the main network are properly secured. The IT team also configured a separate VLAN for maintenance devices such as air conditioners, sprinklers, video cameras, and more.

Since completing the deployment, Moore and his team have enjoyed several benefits of their Meraki network. Through the Meraki dashboard, the IT team is able to easily spot and resolve network issues as needed. With increased network visibility, they can easily articulate to outside teams what the network problems are and help solve them. Plus, whenever there is a network issue, Moore and his team know they can count on the 24/7 Meraki support team to help troubleshoot any issues remotely. Moore added, “Oftentimes, for a CIO, one of the best indicators that things are working well is the lack of issues. And I can tell you that I am working at an organization with a lack of issues when it comes to our network. The tools are working well, the network is working well, and we’re able to ensure the services are up and running for all of our staff and students.”

## The Future is Cloud

“Numerous companies and schools are moving their computing into the cloud, but they have to have good networks to make that happen. Don’t even think about moving to the cloud until your network is solid and you know it can handle the traffic and capacity you’re going to put on it. I am confident that the Meraki infrastructure we have in place will be able to handle the load.”

-- Andrew Moore, CIO

While their Meraki network has helped streamline operations for the BVSD IT team, the most important improvement for the team is the ability to support their growing number of cloud and security projects. By spending less time on day-to-day network maintenance and troubleshooting, the IT team can spend more time on impactful projects that benefit students and the entire district. This includes moving several tools and technologies to the cloud, including VoIP, Desktop as a service, learning applications, the HR system, and more. BVSD is also a leader in data privacy and cybersecurity, putting a large priority on ensuring their network is secure and cannot be hacked.

With their new future-proof network, BVSD is ready to take on advancements in student learning and technology availability for years to come. Students and staff are now set up to succeed, while the IT team can focus on implementing new technologies that will continue to improve classroom experiences.