

Incredible D-Link Value Helps Bring Kahlotus School District's Network Into the 21st Century

Highly affordable enterprise-level managed switches from D-Link enable modern learning initiatives for students in rural Washington.

Background

Located in Kahlotus, Washington, about 80 miles southwest of Spokane, the Kahlotus School District is a small, rural school district that serves 50-60 K-12 students. Built in the 1950s, the campus is comprised of four buildings, including an elementary building, a high school building, a library and a newly enhanced gymnasium. Staffed by 18 employees, the district strives to provide a high-quality education and multimedia learning initiatives that rival those in any larger school district.

The Vision: Improve network speed and performance across the entire school district with state-of-the-art managed switches

As 1:1 learning initiatives continue to sweep the nation, students and teachers everywhere are poised to reap the benefits. Yet not all school districts are prepared for this transformation. Many, like Kahlotus School District, have learned they must first bring their networks into the 21st century.

Prior to 2014, this school district was unable to effectively manage and monitor its network. In addition, it had no way to push data to the right locations, partly because it was overextended on its CAT5 distance between buildings.

"Upgrading all of our networking technology to the modern-day standards was our number one priority," said Glenn Whitcomb, technology consultant, who supports Kahlotus and two other districts. "We were at a critical point. It had been over 16 years since any wiring infrastructure was done, and the district had never owned any managed switch gear, so it was time."

Although Kahlotus recently implemented virtual desktop infrastructure in hopes of delivering multimedia without interruption, it quickly realized

more was needed to accommodate modern learning. Eventually Kahlotus hopes to implement a 1:1 technology initiative, but for now it's using Citrix's VDI In-a-Box, which delivers the desktop through thin clients and donated PCs.

In the spring of 2014, Whitcomb made a valuable connection that would prove to be the catalyst for change. While attending the Pacific Northwest's annual ACPE trade show, he met a representative from MicroK12, a local technology reseller, who introduced Whitcomb to D-Link solutions.

"I was unaware that D-Link had enterprise-level switching gear, but we soon realized that the company had the tools to do exactly what we needed. So we started having conversations about testing and possibly purchasing some D-Link equipment," said Whitcomb. "I collaborate with 23 other local technology directors plus contacts at the state level, so this was a golden opportunity for our district to get equipment it really needed while also enabling me to be the point person for information, advice and guidance about the gear."

The Solution: Four managed Layer 2 switches that provide secure connections, faster speed, enhanced performance and improved manageability

To facilitate the decision-making process, D-Link sent two xStack Gigabit Layer 2 managed switches for evaluation, which Whitcomb and Doug Heider, onsite Tech Director, were able to install quickly and easily on their own. It wasn't long before they realized the value. So while the first two switches were still in trial, Kahlotus School District purchased two additional units, which they installed a short time later.



Key D-Link Purchase Drivers

Performance

Four xStack® Gigabit Layer 2 managed switches from D-Link help Kahlotus School District achieve a high level of network speed, security and uptime.

Value

D-Link's affordable pricing, lifetime warranty and Next Business Day advanced replacement help Kahlotus School District ensure reliability and optimize limited budget dollars.

Innovation

D-Link's DGS-3120 Series switches support physical stacking, multicast and enhanced security, making them an ideal Gigabit access layer solution.

case study

"I'd say all four units were installed in less than four hours total over two site visits—the entire installation went very smoothly," said Whitcomb. "We are currently running base configurations—nothing super complex—but at least we now have the ability to bring our network to the next level and do customization down the road, if desired."

While Kahlotus was testing the D-Link gear, it was also working on its wiring infrastructure—adding fiber to all the buildings and rewiring the entire district to CAT6 cable. As part of the upgrade, it also added wireless throughout the campus for the first time. Meanwhile, Kahlotus built a new environmentally controlled MDF (Main Distribution Frame) room to house all of its servers, core switching gear and WAN connections—something the district had never had in the past.

"It's nothing abnormal for a large school district, but it's pretty significant for a small district like ours," said Whitcomb.

Looking back, Whitcomb and Heider say the decision to go with D-Link was easy.

"One of the biggest reasons we opted to go with D-Link is the company's willingness to help a small district like ours get to the level we needed to be at," said Whitcomb. "This is not a district with deep pockets. D-Link and MicroK12 worked with us and offered some very generous discounts so that we could afford to install the right type of equipment. We were willing to be a reference site, and in return they were willing to make the package even more affordable."

Recent changes with eRate also sweetened the deal. This government program enabled Kahlotus to extend their budget dollars by covering priority 2 equipment, such as switches, wireless gear and access points.

D-Link in Action: High-performance switches provide better connections and set the stage for future 1:1 initiatives, more physical security and IP surveillance

Since the switch installations and infrastructure upgrades, Kahlotus School District couldn't be happier.

"Certainly, we've had fewer headaches related to slow delivery of media and we're not having any disconnects or glitches anymore," said Whitcomb. "We're now poised to install a physical layer security

system at all building locations and can also enhance district safety by installing a centralized intercom and bell clock system—something our district has never had before."

"Before, we were a 10/100 network entirely; but now we're up to a Gig at every desktop; we have the ability to place PoE devices where we need to, we can deliver content wirelessly and, if we want to do density coverage, we can put drops in every room," he added. "We are now able to put in proper devices that give students the same opportunities they would have if they went to a larger district—and that's critical."

Because Whitcomb is located 60 miles away from the campus, he also appreciates the network's remote management capabilities.

"If the district has a problem, they can call me and I can jump on the switch remotely and let them know what's going on—what the device speeds are and if we're passing the 10/100/1000 threshold," he said. "The more I can do remotely, the more the district benefits in terms of time and cost savings."

Going forward, Whitcomb says the next step is to make decisions about technology devices—and whether to stay with PC devices using VDI or switch to Chromebooks using Google applications for education, delivered wirelessly in the classroom. Eventually, the school district also wants to add security devices like IP surveillance cameras, which will enable segmenting different traffic streams on separate VLANs. Having state-of-the-art managed switches makes it all possible.

"It really comes down to the ability to expand capabilities, which is going to be critical in the near future," said Whitcomb. "Honestly, I'm very thankful for the opportunity Kahlotus School District was given with this affordable gear. We've had a very positive experience with D-Link."

Kahlotus School District's complete product integration includes:

Quantity	Part Number	Description
4	DGS-3120	xStack Gigabit Layer 2 Stackable Managed Switches
2	DEM-CB-50	Stacking Cable

Call or visit the web address below for more information on Networking solutions for education.

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