

Customer Profile:



The Doris and Alex Weber Jewish Community High School is a private school in Atlanta, Georgia with 800 students, 22 classrooms, 200,000 square foot campus, five state-of-the-art science labs, art studios, technology and media centers, athletic fields, a gym and more. Their rigorous academic program prepares students to succeed in the classroom and beyond. Like most modern campuses, they rely on wireless access points to provide Internet access. The school turned to D-Link partner Decision Digital to replace previously existing switching and Wi-Fi equipment that was failing to keep up with their requirements.

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- Richard Harber, President,
Decision Digital

Private School Installs D-Link Switches and Access Points, Passing on Complex, Costly Competitive Equipment

The Challenge

The Weber School needed an integrated, centrally managed network to support growing wireless and fixed switching demands. Their previous network consisted of various 10 and 100 Megabit switches, and a variety of consumer-grade wireless access points.

"Adding users was extremely difficult with the old system," said Richard Harber, president of Decision Digital. There was no centralized authentication. Users and IT administrators were having problems with the old system, seamless roaming was not an option, and range was haphazard at best. A combination of disparate consumer-level products had been implemented with marginal success. Eventually, what appeared to be a cost-effective short term expense became more costly in the long run.

The school wanted a high performance solution with robust security, centralized RADIUS authentication (which Decision Digital recommended), excellent signal range, and high-performance speed. They were also interested in Power over Ethernet (PoE). PoE makes installation easy, because access points can be placed where power outlets are not available.

"The Weber School wanted a seamless wireless experience that could be managed the same way a wired network is managed," said Harber. "We assured them that the right solution was available and within their budget. They didn't need to spend top-tier money to make it happen."

The Solution

Decision Digital recommended D-Link switches and wireless access points as an alternative to an expensive, complex solution proposed by a competitive vendor. The D-Link solution offered lower initial buy-in, better overall performance, and ease of management that lowers total cost of ownership (TCO) over the long run. "They could easily lower TCO without sacrificing quality, reliability or dependability," said Harber. "In terms of performance and range, we believe the D-Link product is better, so we matched up the two options head-to-head, and the D-Link product prevailed."

Decision Digital placed D-Link DWL-3200 APs in numerous strategic locations throughout the campus. The APs connect to the main wired network, which features D-Link DES-1526 24-port



Decision Digital is a computer network and information technology consultancy. Since 1997, they have helped numerous organizations leverage computer network technology, enhance performance, and improve staff effectiveness.

PoE switches with a 1G backplane. In total, they deployed 10 access points and four switches, effectively blanketing a four-story 200,000 square-foot heavy concrete building with seamless and centrally managed wireless coverage. The school manages everything centrally via Active Directory with RADIUS authentication.

"The D-Link solution is very straight-forward," said Harber. "You don't have to use a wireless concentrator or a dedicated wireless switch. If we opted for the competitive scenario, we would have had a wireless controller switch in addition to other switching technology. This just introduces another level of complexity, which equals more cost."

The new system features Wi-Fi Protected Access (WPA) security with Temporal Key Integrity Protocol (TKIP), which makes it easier to deploy RADIUS authentication. Previously the best they could do was 128-bit Wired Equivalency Privacy (WEP), which was not secure enough for the school's needs. All users are managed through Active Directory, and the switches are all managed through a simple, easy-to-use Web utility.



**DWL-3200AP - 802.11g
Managed Access Point**

- Plenum-rated Metal Chassis
- 802.3af PoE Support
- Supports WPA2, WPA, and WPA-PSK/AES over WDS
- Also Works as Wireless Distribution System (WDS) with Access Point, and WDS/Bridge (No AP Broadcasting)



**DES-1526 Web Smart 24Port
10/100 Switch, 2 Gigabit
Copper/SFP Ports, w/PoE**

- SNMP, QoS, and VLAN Support
- 802.3af Power Over Ethernet on all 24 ports
- 2 Combo Gigabit Copper or fiber SFP uplink ports
- Web-Smart switch Management

“This is a school, and security is paramount on various fronts,” explained Harber. “With so many devices from students and faculty going in and out of the network, ease of connectivity could not take a back seat to security. The integrity of the network has to be preserved and protected from the very users it looks to serve. We also couldn’t risk outsiders ‘latching on’ to a wireless network which was intended to service the needs of children in an academic environment.”

Installation Discovery Reduces Costs Further
Initially, Decision Digital estimated that the school would need 15 to 20 access points to cover the campus. However, after testing the D-Link equipment, they ended up installing only 10 access points. “That just demonstrates how strong these access points are and how well they’re integrated,” said Harber.

Harber estimated that the complete installation required about 1/3 as much time as the competitive alternative due to simplicity. “Someone trained on D-Link equipment can do the job quicker and more accurately because the process is more straight forward,” he said. Specialized engineers for the more complex equipment would have run up costs, as well.

“If you ask our engineers which wireless system they would prefer to install or use, if they had their own business, they would overwhelmingly recommend the D-Link solution,” said Harber.

Users, IT and D-Link Partner Benefit
Today, Weber faculty and students can roam all over the campus, from building to building and floor to floor, with constant connectivity. Speed is consistently strong. “Users walk around streaming audio and video without experiencing interruption,” said Harber.

“The education directors, and IT directors love it,” continued Harber. “A lot of times teachers are more productive when they can hole up and get some work done. They like the portability. The students have no feedback. It’s uneventful. No news is good news. Overall, we saved the customer money, improved their performance dramatically, and provided a simple, easy-to-maintain solution.”

“Decision Digital has been rolling out wireless systems from D-Link for the past 2-3 years with incredible success,” added Harber. “We overwhelmingly prefer to work with and recommend D-Link equipment. It’s interesting, up until a few years ago, D-Link and ‘enterprise’ were not mentioned in the same sentence. There’s now a level of reliability and dependability that people have come to expect with D-Link’s enterprise gear. The price makes it even more appealing. I have D-Link switches that I run here at the office. I can choose any switch, even the gold standard stuff, but I choose D-Link.”