



Customer Profile:
*Vacaville Christian Schools
Vacaville, CA*

Incorporated in 1975, Vacaville Christian Schools has developed a reputation for academic excellence and Christian Character in a caring, nurturing, safe environment for almost 30 years. They offer a complete school system, Infant through High School. Their enrollment is 1650+ and growing yearly. Vacaville Christian Schools offer a 21-acre main campus Infant through High School, as well as a smaller personal learning environment for Pre-School - Kindergarten.

"We're very pleased with the outcome. Not only did we get the D-Link solution at a great price, but it also has proven to be very reliable, easy to use and always available. Our students and staff now have much more flexibility and mobility. That helps us deliver a quality educational experience anytime, anywhere throughout the campus."

- Roger Mathews
Director of Technology

Vacaville Christian Schools Network Enable 47 Classrooms and Administration Buildings Within One Week Deadline Using A D-Link Business Class Wireless Solution

D-Link Wireless Project Delivers Reliable Campus Wide Network and Internet Access to Students, Faculty, and Staff

The Challenge

In order to meet their information access and educational goals, the Vacaville Christian Schools needed to provide network access for all teachers, staff and students across the campus. The campus includes a remote West Campus for pre-school and kindergarten. Their network provides the local area network, mobile computer labs (25 to 30 computers), access learning applications, and access to the Internet. The majority of Vacaville's students have notebook computers.

Vacaville Christian Schools needed to network the entire campus - inside and out - including 47 classrooms, two-administration buildings, a gymnasium, and the pre-K building where no wired infrastructure existed. The biggest challenge would be outfitting the pre-K building, which is situated 1/10 of a mile away from the main cluster of buildings.

Many of the campus' older buildings and portable classrooms did not have the cable infrastructure necessary for wired connectivity. And the administration knew they couldn't afford the time, disruption and expense required for a cabling project. They didn't want to tear up walls and run cable through the old buildings.

Cost was a big factor. "Installing the needed cabling infrastructure campus-wide was absolutely cost prohibitive," said Roger Mathews, Vacaville's Director of Technology. The school budget was limited, but they didn't want to short change their students and staff just because of the buildings structural challenges.

The project was also limited by implementation time. "Everything needed to be installed, integrated, tested, and completed in a very tight time period," said Mathews. "We had a small window after the end of the school year and prior to teachers returning for the next school year. Plus we had to train the teachers on how to use the new network before the school year started. Bottom line - we had less than a week to pull it off before the fall session started."



The most obvious option was a wireless solution. Wireless would offer the Vacaville Christian Schools the cost, reliability and flexibility advantages that wired options couldn't.

The Solution

D-Link and VAR partner Hudson Business Networks were able to work within Vacaville's limited budget and provide a solution that met the school's goals and objectives.

The Vacaville Christian Schools researched networking vendors and read numerous favorable D-Link reviews from industry analysts and D-Link customers. Hudson had evaluated several D-Link wireless access points and was very impressed with the performance levels. D-Link's reputation for performance, reliability and flexibility helped solidify Vacaville's choice.

Vacaville and Hudson decided to use four D-Link DWL-2200 access points (APs) for low density locations around the campus, nine DWL-3200 APs for higher density locations, and three DWL-2700 outdoor APs for external locations in between. One D-Link ANT24-0800 external antenna would bridge the gap between the remote pre-K location and the main campus.

D-Link and Hudson provided comprehensive presales support and design/installation assistance. As a team, D-Link and Hudson conducted everything from the initial site survey to the post installation support. D-Link provided pre-sales engineering and

Business Class Switching



PRODUCT FEATURES:

- 802.11g 54 Mbps* Wireless Connectivity
- 802.3af PoE Support
- Supports WPA-Personal, WPAEnterprise, 802.1x, AES
- Also Works as Wireless Distribution System (WDS), WDS with AP

"We recommended D-Link for three primary reasons. The equipment is priced much more favorably than the Cisco gear we reviewed, and it is much more flexible. Flexibility was important because we needed to put together the antenna configuration for the remote location. The third factor was pre-sales support. We knew D-Link would support the project with design, site survey and installation assistance."

- Mike Hudson, President
Hudson Business Networks



demonstration units to help evaluate the site, build the design, establish best practices and understand the school's exact implementation needs. The design diagrams that forecast coverage areas over the entire campus provided an excellent starting point for the initial site survey. Hudson felt that D-Link's pre-sales support was critical to the success of the installation.

The remote pre-K site was physically separated from the rest of the campus by a playground and two other classrooms. These obstacles were overcome by bridging one external access point to an internal access point located inside the preschool. D-Link recommended an external antenna mounted on the outside of the building to one of the two antenna ports on the internally located access point. This allowed Vacaville Christian Schools to pick up the signal from the bridge while the other antenna provided network access to the inside of the building. This antenna solution also provided network coverage to the areas between the two wireless access points.

Vacaville Christian Schools' new wireless connectivity provides students and faculty with network access and roaming capabilities from access point to access point anywhere on the campus.

"We're very pleased with the outcome," said Mathews. "Not only did we get the equipment at a great price, but it has proven to be very reliable, easy to use and always available."

The wireless network provides access to the Internet, local network, and campus electronic

services - everything they needed, without the wiring hassles and constraints.

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Conclusion

By offering award-winning equipment, above-and-beyond support, and hard-to-beat pricing, D-Link and Hudson Business Networks delivered an ideal solution that was both on time and within budget and exceeded Vacaville Christian Schools' expectations.



"Our students and staff now have much more flexibility and mobility," said Mathews. "That helps us deliver a quality educational experience anytime, anywhere throughout the campus. We're not restricted in any way."

Mathews, the school's staff, the students and the parents have all been very impressed with the success of the project. Many doubted whether the network could be designed, installed, and implemented within the week they had before the new school year began. Thanks to the support of both D-Link and Hudson Business Networks, the project was completed on time and did not become a disruption to the learning environment for Vacaville Christian Schools.

* Maximum wireless signal rate derived from IEEE Standard 802.11b and 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead lower actual data throughput rate. Environmental conditions will adversely affect wireless signal range.

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