

NATIONAL CATHEDRAL SCHOOL

Customer Profile:
National Cathedral School
Washington, DC

National Cathedral School for Girls is an Episcopal, independent preparatory school for girls in grades 4 - 12. Located in northwest Washington, DC, it is situated on the 57-acre Cathedral Close and closely connected to the Washington National Cathedral. With a current enrollment of approximately 560 students, National Cathedral School is dedicated to the preparation of young women for the intellectual, ethical, and emotional challenges of life. Since 1900 National Cathedral School has been inspiring leaders and empowering dreamers.

"The D-Link access point was very well built and included some key features such as PoE support, plenum rating to meet fire codes, and a locking mechanism for physical security. These features offered us great flexibility in placing the access points in spots that contributed to the superior coverage we experienced over our existing wireless infrastructure."

- Vicky Allen
Network Administrator

National Cathedral School Enriches The Education Of Young Women Through The Use Of Computing Technology Enabled By A D-Link Business Class Wireless Solution

Challenge: National Cathedral School is a prestigious college preparatory institution for young women that prides itself in the total education and development of the world's future leaders. In order to challenge its students to realize their full potential, National Cathedral School must constantly re-evaluate their own instructional methods, tools, techniques, and curriculum. Part of that effort is to determine how technology may be leveraged to meet and exceed their goals.

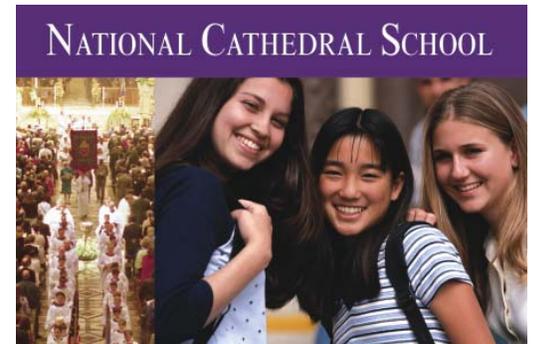
As a result, National Cathedral School invested appropriately over the years in computers and computing technology. Today, each of the school divisions (lower, middle, upper) has its own computer lab, and most classrooms are wired with an Internet connection. Lower School students learn how to use programs such as Inspiration and PowerPoint to expand and enrich projects in all disciplines. Middle School students improve their communication and computing through projects focusing on spreadsheets, computer graphics, Web pages, and slideshows. Students learn to use many programs including Word, Excel, and PowerPoint. Upper School students may elect to take advanced courses in technology and computer science such as Internet authoring, multimedia design, digital photography, computer programming (C++ or VBASIC), and AP computer science.



In order to provide maximum flexibility for the school's students and faculty, a large portion of the computing resources have been invested in mobile laptops and tablet PCs.

National Cathedral School also decided to run a pilot program and provide a laptop computer to every enrolled 8th grader. With the growing use of mobile computing resources on the campus, the Technology Office team at National Cathedral School needed

to provide a more reliable, easy to use, and cost-effective networking solution.



National Cathedral School had a wireless network infrastructure in place. However, it was clear to the technology team it needed to upgrade and improve its infrastructure to scale with growing demands. As a result, the campus and buildings had to be saturated with robust wireless coverage. Their existing wireless infrastructure was providing spotty coverage partly due to the signal strength of their existing equipment and specific environmental conditions such as the unique architecture of the buildings on the campus. Therefore, National Cathedral School set out to upgrade their wireless infrastructure.

Solution: After receiving a high recommendation from a trusted colleague, Network Administrator Vicky Allen decided to evaluate wireless networking products from D-Link. In evaluating the D-Link products, Vicky became intrigued by the features and capabilities of the D-Link DWL-3200AP Managed Access Point.

Placement of the wireless access points was an important consideration for National Cathedral School. Because of the uniqueness of the building architecture, some access points would be placed in odd or unusual locations. The robust and well-designed plenum rated chassis of the D-Link DWL-3200AP allowed for versatile mounting in halls, classrooms, closets, and drop ceilings.

Additionally, the built in Power over Ethernet (PoE) capability facilitated the optimum placement of the access points by not requiring nearby power outlets. "The D-Link access point was very well built and included some key features such as PoE support,

Business Class Wireless

DWL-2100AP

802.11g/2.4GHz
Wireless AP



Product Features:

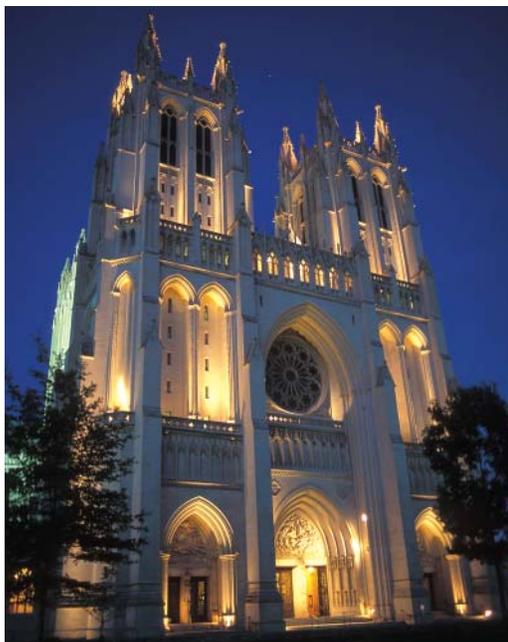
- 802.11g 54 Mbps* Wireless Connectivity.
- 802.3af PoE Support.
- Supports WPA-Personal, WPA-Enterprise, 802.1x, AES.
- Also Works as Point-To-Point Bridge, Point-to-Multipoint Bridge.

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Network Administrator

plenum rating to meet fire codes, and a locking mechanism for physical security," commented Allen. "These features offered us great flexibility in placing the access points in spots that contributed to the superior coverage we experienced over our existing wireless infrastructure," added Allen. The dual high gain removable antennas of the DWL-3200AP also had a big impact on the quality of the wireless coverage.

Conclusion: Allen and team commented on how smoothly the installation of the D-Link DWL-3200AP access points went. The D-Link supplied access point manager software made both installation and troubleshooting easier by providing simple configuration and good visibility into the performance of the access points.



Through trial and error with their previous wireless infrastructure the information technology staff (and faculty) had an idea of where the problem areas or "dead spots" were on the campus. Those were the first areas that were upgraded with the new D-Link gear. "We were very pleased to see the significant improvement in signal quality after installing the

D-Link access points," commented Allen. "We immediately received comments from the faculty who noticed the superior performance, range, and reliability of the D-Link wireless equipment," added Allen. National Cathedral School installed two of the D-Link DWL-3200AP access points in the prestigious Washington National Cathedral to support some office spaces within the building. Even with the unique architecture of the Cathedral, the wireless coverage was strong and reliable.

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The strong coverage provided by the D-Link DWL-3200AP access points allowed National Cathedral School to better saturate the campus and provide better overall performance to the students and faculty. Multiple D-Link access points enabled a better distribution and load balancing of wireless clients across the area. The mobile labs, consisting of up to 30 laptops connecting through, in some cases, a single access point, have also been more stable since the switch to the D-Link DWL-3200AP access points.

The wireless infrastructure is now solid as National Cathedral School continues to more confidently invest in additional mobile laptop and tablet PCs. Most importantly the students of National Cathedral School have a robust, reliable networking infrastructure that will support their pursuit of an "education without limits."