NexGen Services
Case Study

Park Forest - Chicago Heights School District 163

SD 163 Enriches the Learning Environment by Upgrading an Aging Wireless System

Overview

As the use of laptops, tablets, and other hand-held devices increases, schools are one of the enterprises finding it necessary to upgrade their WiFi systems to provide adequate and stable services.

Park Forest-Chicago Heights School District 163 is located in Chicago's far south suburbs. It is comprised of six schools with over 2,000 students in grades Pre-K through 8th grade. The district embraces attention to arts, academic excellence, and sciences and recently reconfigured grades 4-8 to provide students with the opportunity to choose between a School of Leadership or a School of Arts and Technology.

Challenge

The School's wireless network was failing to cope with increasing bandwidth demands. The School District had a limited wireless network in place, but service was not available in every classroom and it could not support a laptop or tablet for every student. Dead zones and bandwidth limitations were delivering a poor experience for the students and faculty. The school needed to refresh the infrastructure with a network that could meet bandwidth needs now as well as for years to come.

Challenges:

- Expand learning experiences with technology
- Upgrade wireless infrastructure to handle heavy loads
- Build an infrastructure that will last for years and enable upgrades in the future

Solution

Bill Wolfe, NexGen's Cisco engineer, conducted a full wireless survey for all sites and prepared a wireless design to improve coverage and delivery. It was configured to work with Windstream's 1 gig high speed fiber network that linked all of the schools and headquarters together. Our technicians installed over 100 new Cisco wireless access points and 14 Cisco Switches. Our engineer implemented an expanded Cisco wireless LAN controller.

Cisco's access points with IEEE standard 802.11ac radio modules support the latest wireless standard for top performance and will last a long time. If greater bandwidth is needed in the future, Cisco's modular design will enable an upgrade without investing in completely new access points.

Results

Benefits:

- Access to the latest information and to digital textbooks
- Worldwide research is available at the students' fingertips
- Students can more easily communicate with staff
- The ability to participate in interactive assignments
- Students are better prepared for high school and college

With stable wireless access, teachers can bring more interactive applications to the classroom. Students can share work with teachers or classmates, even connecting to projectors wirelessly to share work on a big screen. District 163 students also have access to free eBooks through the Open eBooks program which offers access to thousands of books through such organizations as the New York Public Library, National Geographic, Simon & Schuster, and the Follett Corporation.

The Park Forest-Chicago Heights SD 163 WiFi project was largely funded through the E-Rate Program which makes telecommunications and information services more affordable for schools and libraries in America. NexGen Services and it's cabling company, S&G Communications, are eligible E-Rate service providers.

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