

CommScope Enterprise Solutions Helps Pine Lake Preparatory Raise the Bar for North Carolina Charter Schools



Pine Lake Preparatory was launched in fall 2007 as an “educational choice” for families living around the Mooresville, N.C. area. The tuition-free charter school gave area students an additional, cost-effective option outside the surrounding area’s traditional public and private schools. Administrators didn’t expect the enormous demand for the institution. As the school’s popularity soared through word of mouth, the wait list stretched to 4,000 students. Pine Lake became one of the most sought after schools in the Southeast, and for good reason; the charter school might be one of the most technologically advanced of its kind.

Pine Lake Looking for Network of the Future

Pine Lake was launched as a kindergarten-through-second grade (K-2) charter school with 245 students attending class in two locations. The program’s initial success and the increased demand for enrollment led to the plan for a new K-12 school. The goal was to create one of the most technologically advanced schools in the region, a place where teachers could infuse new, and future, educational applications into the curriculum without worrying if they had the technological resources to make it work. After the state’s Board of Education approved the project in August 2007, Pine Lake board members had about a year to design and build a proposed 22-acre campus that would hold three 90,000-square-foot buildings. They had a small window to accomplish a very large goal before the next school year.

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— John Moloney,
Board Chair at Pine Lake

“From the outset, we knew we wanted to be a world-class, 21st-century school,” said John Moloney, board chair at Pine Lake. “Our goal was to provide every upper school student – 9th through 12th grade – with a laptop and provide middle and elementary students with access to in-classroom, mobile laptop sets that can be used for certain projects. We wanted to provide students, teachers and administrators with the best technology and the best network amenities within our budget. Usually, charter schools start in an old car dealership or supermarket, so this was really unprecedented. Fortunately, we had the resources to accomplish these goals.”

During the planning phases, CommScope’s Tom Murphy, a parent of one of Pine Lake’s students, offered some assistance in planning the network infrastructure. He led Moloney and Pine Lake to CommScope Enterprise Solutions and its CommScope Design Services team.

CommScope Assists in Network Design

CommScope Design Services specializes in helping clients craft a unique network infrastructure that meets their needs. Wes McCall of Compass Technologies (an on-contract member of CommScope’s Design Services Team) was available throughout the planning phases and provided design and consultation assistance for a physical layer that could handle systems like security, HVAC, access control, Wi-Fi and VoIP – not to mention all of the educational applications the school adds to the network. To meet its network and budgetary needs, Pine Lake chose to use CommScope’s Uniprise product line for its perfect combination of quality, performance, reliability and price.

Pine Lake’s network design features a technical center and six telecom rooms. The school chose Uniprise’s Category 6 cabling, LightScope ZWP single-mode fiber cabling, coaxial cabling and Angled Patch Panels for the network, with CommScope Enclosures providing the physical structure and protection essential to making the infrastructure solution secure and complete. It would be a six-month installation that would have the 12-man team working right up until the first day of school. Thanks to the project managers, designers and implementers, the Uniprise network was already up and operational when the first bell rang.

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Uniprise Solutions Answers Network Test

Network reliability was one of the main reasons for selecting Uniprise. When comparing networks at other charter schools, Moloney said he didn't see a great deal of passion and commitment to information technology. Backed by a 20-year commitment to performance, Uniprise solutions provide the right level of proven technology for customers concerned with reliability and performance for every day applications.

"I have the opportunity to talk with other charter school members, and they are constantly worried about overloading switches and access points; fortunately, that's a problem we don't have," Moloney said. "We've been provided with a reliable network infrastructure that can be managed by a few IT personnel. Unlike other schools, network problems aren't something we have to spend time troubleshooting on a daily basis. It's an added comfort to know CommScope stands behind its products should we ever need it."

With the network running smoothly, students can depend on fast network speeds to run educational applications, stream video and interact with peers and instructors without any hindrances. Many textbooks provide online supplements to the standard lesson. For instance, students taking Spanish classes can log on and watch soap operas that help students become more familiar with the language and apply the dialect to situations. In another scenario, VoIP phones allow students participating in the FIRST Robotics program to collaborate with other student builders from California to Israel.

Teachers are encouraged to interact with students through the network. Most Pine Lake teachers have blogs where students can ask questions about their homework or provide additional information to the students and their parents. Additionally, campus-wide wireless coverage allows classrooms to take advantage of a gorgeous North Carolina day and hold teaching sessions outside. Everyone leans on the network, and the Uniprise physical layer supports all the applications, streaming video and building management systems with ease.

"With this school, we were really able to aim for the stars, and much of that credit goes out to Tom Murphy, Wes McCall and CommScope," Moloney said. "There's a lot of schools designing and building in infrastructures without the proper resources or guidance. They're using traditional models. As we move deeper into the 21st century, that's not going to cut it. I think school districts need to be connecting themselves with world-class technology companies like CommScope and leaning on these experts to find the best solution for the future. At Pine Lake, we laid a technology foundation that's going to meet our needs well into the future. Hopefully, other schools and districts can use our experience and see that anything is possible."



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04/09 CA-A-1