



CASE STUDY: SOS COMMUNICATIONS AND BARTLETT SCHOOL DISTRICT



UniFi Wireless Coverage Enhances Education at School Campus in Bartlett, Texas

Ubiquiti Networks™ UniFi® provides top Wi-Fi performance and range at an excellent price-to-performance value.

UniFi Access Points are quick to install and easy to configure, so deployment is efficient.

The UniFi Controller software is easy to use yet powerful, so school personnel can readily manage the UniFi network.

The Ubiquiti UniFi wireless LAN platform is used by schools and universities in over 100 countries on six continents. UniFi helps schools improve education quality, make teachers more productive, and extend community involvement by making wireless Internet access easy and fast. One fine example is the UniFi deployment at the Bartlett Independent School District in Bartlett, Texas, USA.



UniFi AP-PRO in the hallway

CHALLENGE OF CAMPUS WI-FI

Located 40 miles northeast of Austin, Texas, the Bartlett campus sits on approximately 5 acres of land and serves over 400 students from pre-kindergarten to 12th grade with a staff of 50 teachers. The campus required Internet connections for 45 locations within classroom buildings and facilities. Buildings have wide layouts and long hallways, and they are made of solid concrete with steel roofs, so their physical structures posed a challenge for Wi-Fi signal penetration. Most vendors proposed cabling all 45 locations, either fiber or Ethernet. These were cost-prohibitive solutions, both in terms of the proposed equipment costs and infrastructure modifications involved. Power was another issue, as the classroom ceilings lacked power.

"The UniFi equipment saved the school tens of thousands of dollars while providing high bandwidth and blanket Wi-Fi coverage."

Jerry Stephens, CEO and General Manager, SOS Communications

MEETING THE CHALLENGE WITH UNIFI

Founded in 2006, SOS Communications is a regional Wireless Internet Service Provider (WISP) covering approximately 800 square miles in the Austin, Texas area. SOS focuses on suburban and rural areas with limited broadband service options.



WI-FI COVERAGE IN ACTION



UniFi AP-PRO mounted on the ceiling

UNIFI NETWORK

SOS installed a test site of three Ubiquiti UniFi Access Points (APs), model UAP-PRO, at no cost to the campus. The UniFi APs were hardwired to the building's Internet connection and installed on hallway ceilings where power is readily available. Feedback was positive; the test site experienced consistent 10 Mbps (upload) and 10 Mbps (download) performance and excellent signal quality.

Then the superintendent requested Wi-Fi coverage for the rest of the campus. SOS initially estimated that 12-14 UniFi APs would be required; however, only 10 were needed to cover the entire campus. There was minimal impact on the existing infrastructure because the UniFi APs were deployed on hallway ceilings. Installation and deployment only took a day and a half.

"With increased bandwidth and the right tools on the Internet, students are engaged in learning and really benefit from what they see and experience."

Dr. Letha Hopkins, Superintendent, Bartlett Independent School District



District administration using wireless

UNIFI NETWORK MANAGEMENT

Initially, the IT Director, Vicky Steglich, was not familiar with UniFi; however, she quickly learned how to use the UniFi Controller software so she can manage the UniFi network. The UniFi Controller software provides a graphical user interface that is both intuitive and powerful; this is particularly helpful for schools that have staff serving in multiple roles.

"The UniFi Controller is very simple and easy to use. I can go in and block unauthorized users, or assign guest accounts so visitors can get on Wi-Fi."

Vicky Steglich, IT Director, Bartlett Independent School District

POSITIVE IMPACT ON EDUCATIONAL EXPERIENCE

A new understanding of rural poverty demands that teachers continually focus on behavioral and guidance counseling. With the help of visionary leadership, Bartlett teachers can re-allocate their time by shifting a significant portion of study time to self-paced, Computer-Based Curriculum (CBC), which frees up group teaching time so the teachers can work individually with students who need help, while self-sufficient students can proceed on their own. Also, teachers no longer need to visit the computer lab for Internet access, allowing them to use their time more efficiently in their classrooms.

With the use of CBC, the daily load of Internet traffic increased from 10 up to 50 users at a time, since all grades (K-12) and core areas are supported. The load increase is possible because of the UAP-PRO's dual-band service, which simultaneously supports older devices at the 2.4 GHz frequency and newer devices at 5 GHz.





ONLINE LEARNING

Bartlett students now use network connections for online learning in every classroom during the entire day. Teachers and students readily use their tablets and computers for rich media streaming, research, videos, Google Earth maps, online testing, and educational programs such as science experiments. This builds a seamless learning environment with technology infused into the curriculum.

Now that Wi-Fi coverage is excellent, teachers and students are using more bandwidth, so the campus will double its Internet backbone from 10 Mbps up to 20 Mbps. The campus will also purchase 50-60 additional tablets for faculty and classroom use.

FUTURE NETWORK EXPANSION

To add outdoor wireless coverage, SOS plans to deploy three outdoor UniFi APs, model UniFi AP-Outdoor. As the campus adds new devices, the network load grows.

When it is time to increase network capacity, SOS plans to use the UniFi 802.11ac APs, model UAP-AC, for enhanced performance.

COMMUNITY INVOLVEMENT

Now that the campus has increased bandwidth, its access to online resources benefits not only the campus but also the community at large. Dr. Hopkins has reached out to local groups and churches regarding opportunities for community education.

"We're discussing an ESL [English as a Second Language] class in the evenings using a low-cost program that's online."

Dr. Letha Hopkins, Superintendent, Bartlett Independent School District

PROPOSING UNIFI AT MORE SCHOOLS

Because UniFi has proven itself as the most cost-effective and high-performance solution for school campuses, SOS plans to approach schools that have similar needs for increased bandwidth and improved Wi-Fi coverage and are included within the 20 Education Service Centers covering the state of Texas.

"We want to level the playing field so rural school districts and schools in major cities both have access to affordable technology and high bandwidth."

Jerry Stephens, CEO and General Manager, SOS Communications

For more information on high-speed broadband services and Ubiquiti Networks products in Texas, visit: www.soscomm.com

For more deployment case studies, visit: www.ubnt.com/customers

