Rural School District Harnesses 21st Century Technology to Prepare for the Future

Nestled in the foothills of the Appalachian Mountains, Alabama's Piedmont City School District (PCSD) is leveraging robust connectivity and blended learning models to revolutionize rural education.

PCSD's history of innovation began nearly ten years ago when the district launched Alabama's first one-to-one (1:1) technology initiative. Today, despite ongoing geographic and economic limitations, PCSD provides each of its 1,200 students with a laptop or tablet as well as 24x7x365 access to interactive, web-based learning environments.

"Everyone in the school district—every student, every teacher—uses technology to enhance the classroom experience," says Matt Glover, the district's director of technology. "The on-demand access allows for accelerated and individualized learning, which has proven to be instrumental in promoting student success."

Powered, in part, by ENA's reliable and scalable technology solutions, PCSD is bridging the digital divide to connect students anytime, anywhere.

A Community Transformation

PCSD's vision—to prepare students for success in a global market—is rooted in another ambitious goal: to transform the city of Piedmont.

Located more than 80 miles from Birmingham in rural Northeast Alabama, Piedmont was once home to a thriving textile industry. In the last 20 years, the city's largest manufacturers have relocated, leaving behind a weakened economy and dwindling job market.

Determined to rewrite Piedmont's fate, PCSD has partnered with the local government to invest in the city's future, arming the next generation of leaders and innovators with critical 21st century skills. By transforming education through differentiated and technology-enhanced instruction, PCSD is building a community of lifelong learners who will uncover opportunity in, and far beyond, Piedmont.

Connected Classrooms

The community's digital transformation began with the launch of mPower Piedmont, a 1:1 initiative that provides MacBooks to students in grades 4-12 and iPads to students in grades K-3.

The devices, paired with ENA's secure Internet access and wide area network (WAN) services, enable students to supplement classroom instruction by independently exploring and sharing a wealth of content. From performing research and collaborating on group projects to playing educational games and watching instructional videos, digital technology is empowering PCSD students to be active learners.

In addition to higher test scores, increased attendance, and improved graduation rates, PCSD teachers and staff have seen a boost in meaningful student involvement since mPower Piedmont's debut in 2010.

"Placing digital tools in the hands of students has had a direct and positive impact on student motivation and participation," says Glover. "When given the opportunity to interact with relevant and engaging content, students pursue knowledge with curiosity and enthusiasm."

Closing the Gap

For many students in rural school districts, particularly those in low-income communities, advanced technology and affordable connectivity are not readily available outside of the classroom. Shortly after launching its 1:1 initiative, PCSD discovered that much of its widely dispersed, largely low-income student population was unable to use the devices at home due to a lack of Internet access.

Committed to providing equitable access, the district issues MiFi devices and, in turn, round-the-clock connectivity, to students in need. PCSD also sought the support of local businesses and churches to set up mobile hotspots throughout the city, giving students a number of safe and comfortable places to study, work, and connect.
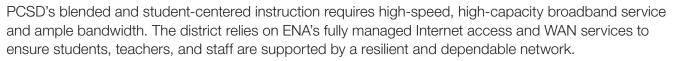
"With the help of MiFi devices and our community partners, we've effectively extended the classroom walls," says Glover. "This not only gives students the chance to complete self-paced, online coursework at home but also allows them—and their families—to explore college and career opportunities."

Looking Beyond 1:1

PCSD's 1:1 initiative has done more than supply laptops and tablets—it has sparked a pedagogical shift.

"Our teachers are now leveraging a variety of educational resources and web-based programs to facilitate personalized learning," says Glover. "To better accommodate diverse learning styles, we recently adopted mastery-based instruction. We've replaced our traditional, time-driven approach with a flexible framework that encourages student autonomy and competency."

The district's mastery-based approach marks another milestone in Piedmont's transformation, thus earning its own name: mBolden Piedmont. Building on the district's inaugural technology initiative, mBolden Piedmont reimagines the instructional process to emphasize advanced mastery, relevance, and student ownership. PCSD students are no longer bound by a one-size-fits-all structure. Mastery-based learning encourages self-directed study, so students work at their own pace and advance once they have demonstrated mastery of core concepts.

PCSD's blended and student-centered instruction requires high-speed, high-capacity broadband service and ample bandwidth. The district relies on ENA's fully managed Internet access and WAN services to ensure students, teachers, and staff are supported by a resilient and dependable network.

"Enhanced connectivity is critical," says Glover. "In order for our technology and learning initiatives to be effective, our network must be reliable and, given our continued growth, scalable."

Creating Secure Learning Environments

PCSD's commitment to remaining connected transcends academic strategy—shaping even the district's digital and physical security protocol.

To maintain uptime and service while students are online, PCSD utilizes ENA NetShield, ENA's hosted firewall service that protects the district's infrastructure against unwanted threats and attacks.

PCSD also leverages ENA's Voice over Internet Protocol (VoIP) solution, ENA SmartVoice, to guarantee that teachers and staff can easily communicate across any campus in the event of an emergency.

"In the past, we did not have the ability to quickly connect our schools for the sake of security," says Glover. "ENA SmartVoice gives us the ability to call any teacher in any building—with just the click of a button. Given today's security concerns, it is absolutely critical that we have a reliable communications platform in place to reach one another. It's our mission to provide students with a top-quality educational experience, and that includes making sure they have a safe place to learn."

The Future of Technology in Piedmont

Eight years ago, PCSD emerged as a champion of connected learning in rural America. Glover, like many others, is proud of the effect technology and reliable access have had on the quality and spirit of learning in Piedmont thus far: "Our students are now eager to learn, and our teachers feel empowered to be innovative leaders. Technology has truly reshaped education in Piedmont, and we are ready to keep evolving."

To learn more about how ENA can assist your school district with its digital initiatives, email solutions@ena.com or visit www.ena.com.