Kentucky school district enhances learning with Ethernet-enhanced connectivity

E-Rate enabled Ultra-High Speed Data expands use of cloud services for rural K-12 students

Located in the heart of western Kentucky's coal fields, Hopkins County is a center of energy and agricultural production in the state. Its rural nature poses a connectivity challenge for a public education system which comprises 14 schools serving over 6,000 students spread across a 554-square-mile area.

To help secure more powerful and consistent bandwidth at every school campus, they embraced a technology partnership with Spectrum Business for enterprise.

Drew Taylor, Chief Information Officer, Hopkins County School District appreciates the commitment of Spectrum Business to customer service, and assistance in planning for government E-Rate support.

"When Spectrum Business came to us, they were able to meet all the technical requirements and stipulations we had," Taylor says. "They explained their designs in a way that made the most sense. Add to that their sensitivity to cost, and it became an easy decision for us."

Better connectivity pricing using E-Rate

In recent years, students at Hopkins County public schools have been making wider use of connectivity, particularly Chromebook applications. The corresponding demand for bandwidth required more reliable circuits, able to move data at much faster speeds to reduce network jitter.

"We actually have more Chromebooks than we do students," Taylor explains.

Making this upgrade affordable is Hopkins County's participation in the federal E-Rate program. This provides sizable discounts to eligible schools and libraries for connectivity costs.

"I've worked with Drew and his staff for many years and went through the whole E-Rate process with them," recalls Jerry Kuntz, Strategic Account Manager, Spectrum Business. "This was right around the time of the Rural Digital Opportunity Fund. E-Rate has a provision for one-time construction we were able to make use of. That way the school district not only got a discount but could spread out their share of the cost over the term of the contract."

Technology is at the center of the educational mission at Hopkins County public schools. Connectivity from Ethernet Services circuits provides the district with access to Ultra-High Speed Data.

Customer profile

Company
Hopkins County School District

Industry
K-12 Education

Services
Ethernet Services
Enterprise Trunking

enterprise.spectrum.com

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Overview
- Students at the Hopkins County School District need reliable, seamless connectivity to improve classroom experience and enhance education.

- The 14 schools require high levels of consistently available bandwidth to serve a multitude of online learning activities.

- Voice communication using dedicated fiber connectivity is critical to keeping schools in contact with families and community services.

Outcomes
- Spectrum Business installed dedicated fiber connectivity at all schools and at their central office with E-Rate supported pricing, using highly secure Ethernet Services.

- The circuits generate higher bandwidth at each district school to enable any current or even foreseeable future service platform leveraging Ultra-High Speed Data.

- The need for each school as well as its central office to keep in reliable contact with parents and the community is accomplished with Enterprise Trunking.

Why it matters
- Hopkins County is home to a highly rural population with many economically disadvantaged families who count on access to quality public education.

- As more learning tools are devised using cloud-based models as well as video and mobile apps, being able to boost bandwidth is now a strategic necessity.

- Looking after the well-being of over 6,000 students requires a flexible, fiber-based voice communication system that can be counted on.

Hopkins County public schools host as many handheld devices as students. "We run all different types of online instruction during the school day," says Drew Taylor, Chief Information Officer, Hopkins County School District. "And we have not experienced any issues."

Consequently, Taylor was able to invest in a solution to power every school with a data transfer rate of 10 gigabits per second. Meanwhile, the central office in Madisonville, which doubles as the district's primary data storage center, runs on 40 gigabits per second. This dedicated fiber connectivity network uses closed Ethernet Services circuits supplying Ultra-High Speed Data.

"Not only is our service easier to manage, but our total monthly cost now is significantly less than what it was," Taylor notes.

Voice communications you can always count on
The technology partnership with Spectrum Business began as a way of addressing challenges Hopkins County School District was having with voice communications. Previously, disruptions had been frequent and sometimes quite serious, aggravating the problem of distance to more rural locations.

Taylor wanted more flexible communications with a service-level agreement guaranteeing 100% uptime. He also wanted the ability to manage twice as many calls during peak activity periods and the ability to spot issues before they happen. He got it all with Enterprise Trunking featuring high-capacity SIP service.

"Everything is running smoothly since we went with Ethernet Services. Speeds are great. Connectivity is seamless and works as it should. We run streaming videos and live video conferencing all the time, and we don't experience any issues."

– Drew Taylor, Chief Information Officer, Hopkins County School District

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Voice communications is not only cheaper with Enterprise Trunking, but more reliable: "Now that we have consistently solid uptime on our network, running our phone lines from the SIP trunk over our network has really increased our efficiency," says Drew Taylor, Chief Information Officer, Hopkins County School District.

"There are a few big benefits," Taylor explains. "One, it's much more reliable than the POTS (Plain Old Telephone Service) we had before, as we now can monitor the system for optimal functionality. Second, it's a lot cheaper. We probably save $6,500 a month moving from POTS lines to our SIP. It's great."

A further enhancement is a multi-location E-911 service that allows emergency services to immediately identify precisely where in a building a call for help is being made. If individual students on campus have special medical needs, these are recorded for instant reference.

No school left behind

While most public schools in the Hopkins County School District are located around the city of Madisonville, other schools are more remote. A critical need for the school district was to ensure all public students have access to the same standard of seamless, dedicated fiber connectivity.

West Hopkins School serves a K-8 student population in Nebo, Kentucky, just over ten miles northwest of Madisonville. "A lot of farmland, and not a large population" is how Taylor describes it. Spectrum Business installed a 10-Gigabits-per-second Ethernet Services circuit which connects the hybrid elementary-and-middle school to the rest of the district.

"We save a lot of money with Spectrum Business both with our Ethernet Services circuits as well as our Enterprise Trunking call paths. That's big because we can then reallocate that money to other needs. And service support has been top-notch."

– Drew Taylor, Chief Information Officer, Hopkins County School District

"If we didn't have that circuit, then there wouldn't be anything for them to utilize at that school," Taylor says. Now Nebo students and teachers can access the same ultra-high speed connectivity available in Madisonville.

Being able to compartmentalize total cost of ownership for key connectivity and voice needs is a signature advantage Taylor enjoys with Spectrum Business and E-Rate funding. This is critical both in terms of service maintenance and upgrades as well as addressing future needs, like plans to build a more modern and efficient central office.

"A lot of it comes down to cost," Taylor adds. "Our monthly cost wound up being significantly less than what it had been before Spectrum Business took over our connectivity. And being an E-Rate district definitely helps as well."

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Drew Taylor, Chief Information Officer, Hopkins County School District (at right) is a proud graduate of Madisonville North Hopkins High School. He sees the value of investing in scalable fiber connectivity: "We always want to be ready to increase our capacity to handle what's coming."

Partnering toward an unlimited future

Future plans for Hopkins County schools include widening their use of cloud services and video-streamed lessons. Taylor has worked at Hopkins County School District for 20 years, but his time there extends even longer. He grew up in the county and graduated from Madisonville North Hopkins High School.

His commitment to the schools and county run deep:

"In every decision I make, I don't think about just the here and now, or even the next two years. I think about what this may look like 10 years down the road, what our needs may be, and what kind of options we will need at that time. With that in mind, it's good to know I can have big conversations about that future with someone I can trust at Spectrum Business."

"Something other rural school districts should consider is total cost of ownership. Having capital expenses folded into Spectrum Business monthly billing has cut our connectivity bill to less than half of what we were spending before."

– Drew Taylor, Chief Information Officer,
 Hopkins County School District

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