

SPRINGFIELD PUBLIC SCHOOLS EXPAND DIGITAL LEARNING INITIATIVES

WITH GIGABIT ETHERNET SERVICE FROM COMCAST BUSINESS

SITUATION

- Public school system in northern New Jersey educates more than 2,400 students
- Laptops and tablets in every early-age classroom; 1:1 student-device ratio for older students

CHALLENGE

- Student enrollment expected to grow
- Increasing use of online educational applications, videos and resources
- Scalable Internet service to support dynamic and growing bandwidth requirements

SOLUTION

- Comcast Business Ethernet Dedicated Internet

RESULTS

- Gigabit Ethernet connection offers 10 times more bandwidth and the ability to scale up to 10 Gbps
- Students can tap numerous virtual learning applications and chart academic progress online
- Backup of data to offsite servers fully supported

NEW JERSEY SCHOOL DISTRICT INCREASES BANDWIDTH BY A FACTOR OF 10 TO SUPPORT 1:1 USE OF LAPTOPS, TABLETS AND OTHER MOBILE DEVICES

1:1 TECHNOLOGY ENABLES NEARLY PAPERLESS LEARNING ENVIRONMENT

Springfield Public Schools students can't quite sing "No more pencils; no more books" – as the popular childhood rhyme goes – but they can boast of learning in a nearly paperless educational environment.

Located in Springfield Township in northern New Jersey, the Springfield Public School district supports a 1:1 technology-learning environment for more than 2,400 students in five schools. Elementary school students explore foundational academic subjects on laptops and tablets, and every student from sixth grade through high school graduation writes papers and completes lessons on notebook computers. All faculty and administrators use district-issued laptops to plan curriculum, prepare budgets, communicate with students and parents, and conduct other tasks.

"We don't believe the use of technology correlates with academic achievement – achievement is connected with student instruction. But technology is an important tool that can be used to inform instruction, and student use of laptops, notebook computers and tablets allows us to foster an 'anytime, anywhere' learning philosophy," said Springfield Schools Superintendent Michael Davino.

MORE BANDWIDTH NEEDED TO SUPPORT USE OF ADDITIONAL TABLETS, NEW INTERNET-BASED LEARNING INITIATIVES

Springfield Public Schools provides students with personal learning devices at no additional cost to them or their parents. They can access assignments and lesson plans in the classroom and many can do the same in their homes. When students use their laptops at home, access to the Internet bounces to a proxy server at the school district so that administrators can monitor that the Web traffic is in line with its acceptable use policy.

Aside from using virtual learning applications and other Internet resources, students, teachers and parents have real-time access to grades, attendance records, cafeteria account balances and announcements from faculty and administrators. The digital learning initiative has earned the district widespread distinction: it participates in the Apple Distinguished Educators Program and Project Red Signature District and won a Center for Digital Education Digital Content and Curriculum Award.

The school district was experiencing great success with its 1:1 technology learning program, but to keep it going, administrators needed to make some additional technology investments. "We needed a scalable Internet service that could not only fully support the digital tools we already use but also help advance our technology-based academic programs without us worrying about how we'd meet bandwidth demands," Davino said.

“We didn’t want to limit any programs because of bandwidth constraints. It’s frustrating, for example, to have to block students and teachers from a rich stream of instructional videos just so that we don’t overextend bandwidth. And we certainly didn’t want to delay, or even scuttle, new initiatives because we needed more network capacity.”

Michael Davino
Superintendent
Springfield Schools

For instance, the district had 400 tablets in its early childhood center and two elementary schools but wanted to purchase more tablets so that students would no longer have to share. However, the district did not have enough bandwidth needed to support more tablets – it was already having to limit viewing certain online instructional videos on school-issued laptops and computers so that the viewing of such videos wouldn’t tax its 100 megabits per second (Mbps) Internet service.

As the district prepared for a planned internal network upgrade to accommodate an expected increase in student enrollment, it became clear that it needed more capacity from its Internet service provider to keep pace with such an enhancement – or to make good on the district’s dream of entirely replacing textbooks with tablets.

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COMCAST BUSINESS DELIVERS GIGABIT ETHERNET SERVICE TO SUPPORT BANDWIDTH-INTENSIVE LEARNING

After reviewing the capabilities of several service providers, Springfield Public Schools selected Comcast Business to upgrade its 100 Mbps Internet service.

Comcast installed a fiber-based 1 Gbps Ethernet Dedicated Internet connection to support Internet access for five school buildings and an offsite data center as well as support the more than 500 tablets and 1,000 computers simultaneously accessing the network. With the new service, Springfield Public Schools can offer 1:1 technology learning with the confidence that it can continue its many digital academic programs and add more students and devices without taxing bandwidth.

Springfield schools can continue using virtual learning and other academic and administrative Internet-based applications while simultaneously implementing Web programs that would have previously slowed the network. Teachers and students now freely stream videos in classrooms without affecting the performance of other applications. And plans to upgrade the Internet connection to 10 Gbps are currently underway as student enrollment continues to climb and the possibility of replacing textbooks with additional tablets is explored.

Beyond its external-facing benefits, the Ethernet Dedicated Internet connection from Comcast also supports the district’s offsite backup system, which includes data stored in its Student Information System (SIS). The connection is also responsible for archiving and backing up all school email to the district’s offsite data center.

Added Davino: “Comcast Business provides us with significantly more bandwidth so we can focus on providing our students with the best possible education without worrying about slowing the network. We also know we can look ahead to the future without concern as we plan to upgrade the network to 10 Gbps and someday be as paperless as possible.”