

COMCAST METRO ETHERNET SUPPORTS A NATIONAL LEADER IN DIGITAL EDUCATION



SITUATION

- Township High School District 214 is the second largest high school district in Illinois
- Serves 280,000 residents with an enrollment over 12,000 in grades 9-12
- Mission is to help all students reach their full potential as citizens in a changing society and to support residents with opportunities for lifelong learning

CHALLENGE

- Make education dollars go further—do more with less
- Leverage state-of-the-art IT to serve students and to receive critical funding in the midst of a state budget shortfall due to the national economic downturn

SOLUTION

- Comcast Metro Ethernet, providing an IT backbone to support ambitious educational goals and save money
- Participation in the IlliniCloud, a shared IT organization built by Illinois school districts using private donations and Government grants, and supported by Comcast Metro Ethernet

RESULTS

- Reliable, high-capacity network with the performance to deliver information in a district with more than 6,200 computers, 1,300 VoIP phones, 850 iPads, 225 IP cameras and 400 wireless access points
- Top Ten Technology School District; receives 42% funding through E-Rate and stays on budget
- Achieves significant cost savings based on technology implemented

UTILIZING TECHNOLOGY TO MAXIMIZE STUDENT BENEFITS

Township High School District 214 serves eight communities in northern Illinois. The District's mission has been the same for nearly 100 years, but educational technology has evolved dramatically, and so have the costs.

District 214 has to maximize the student benefit of every dollar it spends, so it makes effective technology a priority – leveraging the cost-economies of using the right tools for managing, disseminating, and archiving data. It's a challenge in the best of times, and particularly so during a national economic downturn.

District 214's server virtualization project has significantly reduced both hardware and energy costs. Connected by a Comcast Metro Ethernet backbone, the virtualized servers have saved the District hundreds of thousands of dollars in hardware replacements and energy costs, and also lowered greenhouse gas emissions. In addition, the District's HVAC systems are monitored and controlled from a central location across their Comcast wide area network, increasing efficiency in energy management and better cost control.

AN "EDUCATOR'S WISH LIST MADE REAL" – AND COST-EFFECTIVE

District 214's technology leadership supports its education mission with:

- On-line enrollment for all incoming 9th graders and new students, streamlining information management and communications
- Project Lead the Way (PLTW), permitting District 214 students to explore courses and careers in Biomedicine, CAD and Engineering
- Voice Over Internet Protocol (VOIP) telephony district-wide saves money compared with the former system
- Web 2.0 tools can be used in many areas as learning tools to engage students
- An IP Video System (<http://www.safarimontage.com>) in every classroom throughout the district streams Comcast channels for daily education and special projects
- A pilot healthcare program enables participating students to interact with hospitals and other medical professionals via video conferencing on program provided laptop computers

It's an educator's wish list made real – and cost-effective. "When we assessed our needs, it was clear the budget wouldn't support our plan. This is where Comcast Metro Ethernet came in," says Keith A. Bockwoldt, District 214 Director of Technology Services. "Having the bandwidth needed to support voice, video and data across our network was critical. Comcast's service extends from their knowledgeable E-Rate team to their reliable and scalable network to their great customer service. We couldn't have asked for a better partner."

COMCAST
BUSINESS

“We believe the future is in cloud computing, and virtualization is the first step to bringing the District to a completely cloud-based environment. Kids today are growing up in a digital world, and we want to prepare our students, educators and community for the future. Comcast’s Metro Ethernet gives us the capacity and bandwidth to deliver cloud, virtualization, streaming video and other bandwidth-intensive systems to better serve our students and keep us on budget.”

*Keith A. Bockwoldt
Director of Technology
Services, Township High
School District 214*

Township High School District 214 uses the capacity and bandwidth of Comcast’s Metro Ethernet for 24/7 backup and replication of Finance, Payroll, HR, Student Information and other critical data. In the event of a disaster, the district can spin-up live systems in a matter of minutes. Additional applications are being tested, such as software as a service and Web-delivered educational videos. Best of all for District 214 students, they can now let their minds voyage as far as the Internet and their curiosity can take them. District 214 (or The school district) is part of a grassroots organization, the “IlliniCloud,” which provides state of the art technological support to K-12 education. It comprises multiple data centers, enterprise level storage solutions, next generation networking infrastructure and stateless hardware design to support an ever-evolving range of 21st century educational technologies for teachers, students and administrators. Security is a priority, so data is encrypted. From its beginning in District 214, the growing organization is uniting Local Area Networks and storage networks; reducing overall volume and costs of equipment; easing traffic congestion; improving reliability and stability; and reducing the need for expensive Tier 1 storage.

More districts are leveraging the savings of pooled work and resources using Comcast Metro Ethernet, and the savings speak for themselves. A simplified, converged architecture lets them invest in students instead of constant spending on equipment upgrades; leverages economies of scale on state of the art computing storage and network resources for both large and small school districts; and improves efficiency and scalability without growing overhead.

AWARD WINNING EDUCATION WITH POSITIVE IMPACT ON THE BUDGET

Comcast’s support and guidance on the federal government’s E-Rate program has paid off for Township High School District 214:

Awards and Recognition

- District 214 recognized by the Center for Digital Education, the National School Boards Association and *Converge Online* magazine as a Top Ten Technology School District in the nation; tied for fourth place in the medium school district category
- Recognition showcases exemplary school boards and districts’ use of technology to govern the school district, communicate with students, parents, and the community, and to improve district operations

Cost Savings and Community Benefits

- Server virtualization cut seventy-five physical servers down to seven, saving \$330,000 in hardware replacements and \$45,000 in energy costs (equating to planting 1,260 trees, taking 45 cars off the road, and saving 559,192 lbs of CO2 emissions)
- \$125,000/year saved through on-line registration
- VOIP – \$400,000 savings/year – realized return on investment after three years
- \$131,000 in savings over three years with Comcast Enterprise Ethernet service versus Asynchronous Transfer Mode service
- \$75,000 electrical savings by turning off 6,200 computers each night
- \$11,000 savings by using email direct deposit advice instead of paper copies of the direct deposit advice
- \$18,000 savings by using a printer management system

Best of all, students, their families and the community all directly benefit from Township High School District 214’s exciting approach to education and the future.