Schenectady City School District

Schenectady City School District (SCSD) is located 12 miles from Albany, New York. The district offers hundreds of courses and programs to nearly 10,000 students throughout the city of Schenectady, and has more National Board Certified Teachers (NBCT) than any other district in the state, with the exception of New York City.

SCSD deployed the NEC UNIVERGE 3C™ communications platform, which enabled the district to reduce cost, incorporate technology into the curriculum and improve communication with the community at large.

Challenge

SCSD has 20 schools, including two early childhood centers, nine elementary schools, a middle school, as well as a high school with a main and satellite campus. Technology has been an integral part of the district's long-term strategy for more than 15 years. "When SCSD drafted its long-term strategic plan back in the mid 1990s, one of the goals was to provide curriculum–driven technology to meet the needs of a diverse student population," said Laurence Spring, Superintendent, Schenectady City School District. "The district knew even back then that technology needed to be a natural part of the total school environment in order for students to be productive in an information-driven, global society." The plan included transforming each school into an enhanced, state-of-the-art learning center. "This included equipping each classroom with Internet access, video instruction as well as digital and animation graphics," added Spring.

The district initially required an upgraded technology infrastructure to support its plan for new educational initiatives and goals. "We didn't have much of a data network infrastructure back then, so we started by installing an ATM network that had the capacity to support multimedia traffic," said Karen Corona, Public Information Officer, Schenectady City School District.

Another priority at the time was to migrate all of the schools and administration buildings to a single network. The district deployed UNIVERGE® Sphericall, a legacy software-based voice platform from NEC, to provide connectivity throughout every classroom and office. "As a software-based platform, Sphericall allowed us to carry our voice traffic over our new ATM network, which carried all of our other data as well," said Corona.

Customer

Schenectady City School District

Industry

Education (K-12)

Challenges

- Limited Budget
- Antiquated technology
- Long-term strategic goals
- Costly Centrex services
- Multiple buildings/disparate systems

Solution

- Communications Platform: NEC UNIVERGE 3C™

Results

- Curriculum-driven technology
- Improved parent-teacher communication
- Enhanced student safety
- Expandable voice platform
- Sustainable network lifecycle
- Significant, long-term savings

Schenectady was one of the first school districts to put a phone in each classroom. "We are spread across so many buildings, so prior to this, our options were to either buy expensive PBX systems for each location or rent Centrex services from the telephone company," she added. "The district was paying nearly $40 per-month, plus usage charges on a per-phone basis at the schools."

After several years, the ATM network reached end of life and the district sought an IP-based replacement. "Our ATM network served us well 15 years, but our curriculum has evolved over that time and calls for more video and other rich multimedia content," said Corona. "It would be more economical to upgrade to an architecture that is optimized to handle these requirements than to keep making incremental upgrades to the legacy network." With the new network, SCSD also wanted to upgrade its voice platform.

Funding for new technology initiatives is a concern for all school districts. "While it's important to keep facilities upgraded, it comes with a hefty price tag," said Spring. SCSD's leaders wanted to be sure they were investing in the solution with the longest technology lifecycle.

"If we were going to invest in this kind of upgrade, we had to make sure we selected something that would last well into the future," Corona added. "This upgrade had to allow for added capacity and future network uses."

Solution

SCSD first upgraded to a complete 10Gbit IP network. The district then upgraded its voice platform to UNIVERGE 3C, an evolution of NEC's legacy Sphericall voice platform.

UNIVERGE 3C builds on Sphericall's core software technology to deliver an even more powerful set of converged applications all from a single solution. The platform also includes a rich set of new, built-in collaboration capabilities that enable users to easily communicate via Web, audio and video from virtually anywhere, using any device.

To migrate from Sphericall to UNIVERGE 3C, SCSD simply upgraded its software. There was no rip and replace and the district retained 100% of their existing handset and wiring infrastructure investments. SCSD's upgrade was also eligible for E-Rate, a federal program designed to make telecommunications services more affordable for schools and libraries. Because of UNIVERGE 3C's unique characteristics, the district received an E-Rate award to cover 90% of its upgrade costs, reducing the cost to implement the platform by up to-40 percent. While the district's legacy solution provided several features and benefits, the UNIVERGE 3C platform enabled even more enhancements. The system's standards-based architecture has always allowed the district to use simple, off-the-shelf phones from any electronic store, but UNIVERGE 3C enables new SIP capabilities. "We can put in a nine dollar, third-party SIP phone in each class," said Corona. "There's no network port required, so this is very cost efficient for replacements or new installations."

The initial install equipped each classroom with a phone, but the latest upgrade to 3C enables voicemail-to-email capabilities. Teachers can access their voicemail messages directly from MS ® Outlook ® , allowing easier and faster communication with parents and other staff members.

New e-911 functionality also improves student and staff safety. When a teacher dials 911 from the classroom, emergency responders are notified of the room location. Email and text message also go to the main district office. SCSD is using UNIVERGE 3C's auto-call system to send out school and district-wide notifications like student attendance, school closings, inclement weather advisories, and upcoming test dates. The UNIVERGE 3C platform also provides video conferencing capabilities.

Results

The UNIVERGE communications platforms have delivered significant cost savings to SCSD. "The fact that we've been able to carry voice traffic on the same network as our Internet and business data for the past 15 years has saved the district thousands in just cabling alone," says Corona.

The district also implemented the NEC platforms at a fraction of the cost of a Centrex solution. "The average per-seat purchase cost for the UNIVERGE platforms was significantly lower than if we would have rented Centrex from the telephone company all this time," said Corona. "And, the district actually owns the entire system."

While the initial installation was 15 years ago, the true test has been how the district has sustained cost and functionality since then. "SCSD is still using the same systems as originally deployed and all of the original UNIVERGE components are still in place today," says Spring. "In short, we saved $1M when we first deployed the system 15 years ago, and then another $600K in our latest upgrade to UNIVERGE 3C."This district has enjoyed the flexibility to expand the system over the years, as needed. "Because of UNIVERGE 3C's software-based architecture, we don't suffer from the growth limitations of traditional hardware-based solutions," said Corona. "We've been able to simply upgrade to newer versions of the solution using our standard PC servers, rather than replacing expensive, proprietary PBX devices."

Today, SCSD has over 1,000 phones, 3,000 client PCs and over 30 file servers. Every classroom has a computer, phone and video connections; and, they all reside on a single network. The district also produces its own television programming that is broadcast to the community across the local cable television network. The entire production is recorded, edited and produced and finally transmitted utilizing the district's network and server infrastructure.

We have excess network capacity and an easily expandable voice platform that will last well into the 21st century," Corona concluded.

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