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NEC

VoIP Solution: Education

Danville Schools Select NEC for VoIP Solution

Danville Community Consolidated School District operates schools 11 schools in Danville and Tilton, Illinois, including one school, two middle schools and eight elementary schools. Danville schools serve nearly 6000 students in a 48 square-mile area located near the middle of Illinois on the eastern border..

The Challenge

As the year 2000 arrived the Danville School District was using Electra® 824 key systems and single line phones that were interconnected by some 285 Ameritech Centrex lines. While that system served the district well during the 1990s, the school system wanted to explore new technologies that provided

A safer and more communication friendly school environment. Restricted by a very modest budget, the district needed an affordable telephone system that would interconnect nearly 1000 phones in 13 buildings and offer updated features such as a weather hotline, centralized voice mail, Call Accounting, Caller ID and forced authorization codes. We needed reliable PBX systems that were easy to operate, cost effective, up-to-date and convenient," says Dennis Stonewall, director of business for the Danville School District. "Cost controls were especially important. We have local measured service in Illinois, so a local call can cost almost as much as a long distance call. We needed a way to set up authorization codes for local calls from classrooms as a way to control costs."

Solution

When federal funds became available to wire all the classrooms for computers and telephones, the district decided to update its voice communications as well.

Initially, the district had decided to

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Dennis Stonewall,
Director of Business,
Danville Schools

install T1 circuits for voice transmission and fiber optic lines for data transmission. However, Steve Autor owner of Digital Communications, an authorized NEC Autor recommended cost effective Voice over IP (VoIP) technology that mixes phone traffic and Internet traffic on the Wide Area Network

(WAN) using single mode fiber optic lines furnished free of charge by the local cable TV company. Additionally, Autor recommended replacement of the district's NEC key systems with a NEAX® 2400 IPX school and smaller NEAX® 2000 IVS2's in the rest of the schools. He also suggested the addition of an ISDN-PRI circuit that was connected by VoIP trunks to bring Direct Inward Dialing (DID) traffic to all the phones. The new NEC VoIP system offers many features that address safety, cost and communication issues. DID capability supports centralized voice mail with message indicator and four-digit dialing for every phone in the district. A dial-by-name directory is also available. Previously, users who didn't remember an extension number called the district operator and asked for that number. Now, they can dial the voice mail system and press * to dial by last name. With phones in every classroom, teleconferencing is another added feature. Safety and communication issues

Case Study



are addressed with the new intercom system. Teachers can respond to an internal call from the office quickly and easily. With an NEC phone in the classroom, teachers can call the PC help desk for computer support, request audio-visual equipment from the library or call parents directly from the classroom. Safety is greatly enhanced by the Centralized Call Accounting system, which collects useful information from each of the phones in the district.

Stonewall says the new feature proved helpful immediately after installation. "A bomb threat was left in a voice mailbox over the weekend. Since the call came in on the ISDN-PRI, Caller ID information was collected. We matched up the time of the voice mail message with the Call Accounting data to provide the police with the Caller ID of the phone that made the call. Turns out the caller dialed the wrong number in more ways than one. Police say the caller meant to dial another school in a different town that had a similar phone number."

Centralized Enhanced-911 service is another safety addition to the district's new phone system. When a 911 call is placed, the local 911 center automatically gets the location of the phone inside the school from where the call was placed. A weather hotline provides another added feature for the community. During inclement weather, up to 600 calls per hour can flood the system. Since the hotline can answer 16 calls at once, callers get through, hear the message quickly and hang up, clearing the line for another caller. This district's switchboard operator, who used to answer all those calls by hand.

Results

Danville schools are now enjoying significant cost savings and many new features as a result of their new VoIP PBX system from NEC. While the district previously paid for 285 Centrex phone lines at a cost of about \$4000 a month, the

district now only pays for about 75 lines plus the ISDN-PRI. Additionally, the school system avoided paying \$2250 a month for 10 T1 circuits. That adds up to an annual cost savings of \$51,000 per year.

The new VoIP system benefits the community along with school personnel. Danville schools are better protected with the new 911 system. Potential threatening phone calls can be traced through Caller ID. Parents get weather cancellations quickly and easily. Teachers are easier to reach with individual voice mail and a dial-by-name directory. Internal communication is enhanced with four-digit dialing and intercom phones in each classroom. "The bottom line," says Stonewall, "is we have happier employees. Communication is much more efficient and safety issues have been better addressed."

"Partnering with NEC dealer, Digital Communications, was the key to success," says Stonewall. "Steve Autor made us aware of changes in technology that saved us money and provided many benefits. NEC experts responded to our needs quickly and efficiently. Installation was accomplished with minimal disruption in service, but more than have an updated communication system that will serve our children many years to come in more than we can envision."

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