

# Network may provide educational options

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The main goal of the city of Chanute's communication project was to create a network linking the city, USD 413 school district and Neosho County Community College.

And USD 413 Superintendent Steve Parsons saw advantages to the idea right away.

Parsons said the district spends a significant amount of money each year for technology equipment and access to the Internet. Through the city's network, the district can go through one point of entry and be connected to the outside world.

"This will give us a more efficient way of communicating between our buildings and with the rest of the world via the Internet," he said.

The school system is currently linked together by point-to-point T1 lines running from each building. Through the city's network, the district will be linked together by fiber or through wireless communication.

Michelle Tendall, USD 413 technology coordinator, explained that wireless connections can be increased to 12 megabits and fiber can be increased to a gigabit, or 1,000 Mbps. The network will also allow the district to centrally locate all servers, instead of having servers located in each building. Tendall predicts the system will be more reliable.

While the district did not know for sure if the system would become a reality, it had already started upgrading its own system. Tendall said the district upgraded its internal network to have a 1 Gigabit backbone, meaning that everything inside the system can talk at a 1,000 Mbps. With the city's system, moving all the servers to a central location so they can operate at 1,000 megabits will save the district money in the future.

The district currently purchases a separate server for each school building. On the city's network, once those servers wear out, the district can consolidate servers, for example purchasing one server for all the elementary schools. "One larger server is cheaper than four small ones," Tendall said.

The system will open opportunities beyond what the district could afford right now. "Just the capacity of the network will give us options that we haven't had before or haven't been able to afford before," Parsons said. "We will start to see how we can capitalize on those options to provide a better education for our children."

For starters, Tendall said being on the city's network should be able to improve the quality overall of the system. The district currently experiences traffic problems on its network. Some of that stems from too many people trying to use applications already located centrally on the server at the main office. The bandwidth is too small for the amount of traffic trying to travel on it.

Being connected to the city's network means being able to link to the outside world, which also may open numerous possibilities, including the Kan-Ed network, which connects schools and libraries throughout the state.

"If we were to connect to Kan - Ed, it would allow us to connect to other schools," Parsons said. "We would be able to use or share staff in terms of some instruction activities or even courses."

The idea of distance learning, isn't a new one. But with the possibility, Parsons sees that a small school might be able to offer classes that were not available before.



**William Habinger, Alcott Elementary School 1st grader, has explore time with his classmates at the school's computer lab. Part of the city's fiber optic network project is to link USD 413 and Neosho County Community College with the city by fiber optic or wireless connections for faster, more reliable service.**

Parsons said the district really has not participated in distance learning in the past because it has been able to fill teaching vacancies and offer a full curriculum. "I do see the possibility that other districts may look at having our staff help in offering instruction to their buildings," he said.

The district has already had the option of sharing some resources with NCCC, including an interactive communications system with the high school. "That potential will be increased with this type of network," Parsons said.

While the district already has a technology support crew, Parsons sees a collaborative effort between city, NCCC and district technology crews in the future.

Parsons is not sure of the costs for the district converting to a fiber optic network. Tendall said the funds will be there. She said the district may have to purchase firewalls to protect itself from outside threats.

"If other entities were to catch a virus, it wouldn't come over into our network," she said.

Firewalls also prevent any hacking attempts. Tendall said to her knowledge, most of the other equipment, such as wireless radios, will be provided by the city.

The district budgets money for technology each year. The conversion to a fiber optic or wireless network will become a priority in the technology budget, Parsons said.

Also helping to pay for the switch is e-rate funding. Currently the district receives e-rate money for communication services, but that money leaves the community to pay for services provided by outside providers. Parsons explained that with the local network, it is possible that the money can stay in the community and help to enhance the city's network.

For example, if a school pays \$1 right now for a T1 service line, that dollar goes out of the community, say to SBC. Through fiber optic network, the 70 cents of that dollar paid by e-rates stays in the community, rather than leaving.

Parsons said that right now, teachers may not be aware of the project. The district, college and city have been talking about the network for several years.

As it becomes reality, Parsons said the district will start to investigate more of the possibilities. "We've been reluctant to start those discussions until we knew that it was really going to happen," he said.

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