



Education at the “Speed of Business”

The Newark Unified School District, an hour south of Oakland, California, has begun using an integrated voice-data-video network from Avaya to accelerate its efforts in providing world-class education to its 7,500 students. In doing so, this community of 45,000 has stepped out in front of most of the nation’s school districts in using technology to impart “education at the speed of business.”

Test scores of Newark students have risen during the past three years at a higher percentage than any of the other 17 school districts in sprawling Alameda County — and Newark has pulled ahead of the vastly larger Oakland school system. Newark is also a showcase demonstration site for several major technology companies.

Newark has always been known for its feistiness. In the 1950s, for example, a spirited group of residents successfully fought to keep Newark a separate city rather than join surrounding townships in incorporating as Fremont.

Newark never lost its instinct to strike out on its own in following its destiny. Nowhere is this more evident than in Newark’s standing as one of only a half-dozen or so districts in the country that

involve their entire municipality in a community-wide strategy for education. In the words of its mission statement, the Newark Unified School District is out to “inspire and educate all students to achieve their full potential and be responsible, respectful, productive citizens.”

“That’s a big paradigm shift in education,” says Kenneth A. Sherer, Newark’s superintendent of schools for the past three years. “We expect every student to learn, and we make it our job to provide an atmosphere that’s conducive for that learning to occur.”

The second component of Newark’s strategy is to provide world-class education — to equip its students to be competitive with other students anywhere in the world. The District’s vision statement calls for “a model of world-class education that develops the unique abilities of every student.”

Newark measures student progress against a number of variables: state and national test scores, the curricula being offered in other industrialized countries and how competitive its students are in their chosen field. “We want them to be able to qualify for entry into any university in the world,” says Sherer. “We want students to be successful as adults, not only economically, but emotionally, which means they have to work in an area that is their right niche. We spend a lot of time helping them find that niche. For students who plan to enter the world of work after high school, we want them well prepared for their chosen field, and we help them with that. If they’re not sure of what they want to move into, we encourage them toward post-secondary education.”



To help equip students for a world-class education, Avaya Inc., the former Enterprise Networks Group of Lucent Technologies — installed in the spring of 2000 a complete voice-data-video system for Newark's eight elementary schools, a junior high and a high school, plus several alternative schools. The district's 500 teachers can use the network for a host of communication applications, including posting grades, processing e-mail and accessing ASP (Application Service Provider) portals as teaching aids.

"We have phones and data ports in every classroom as part of a complete, converged and interactive network," Sherer says. "It gives us very fast connections to the World Wide Web and to the district's intranet for all our teachers and eventually to all our students' homes." About 60 percent of students now are connected via home computers, and the next step is to have every student carry a handheld computer connected to the network via Avaya's wireless protocol.

"With video capability," Sherer explains, "we'll be able to utilize the strengths of our teachers in every classroom throughout the district. A high school teacher could teach fifth-graders algebra without leaving his high school classroom. A teacher in a foreign country can teach his or her language to our students. Our teachers will be able to share conversations across the district and around the world.

"Avaya is allowing us to realize our dream of having every home connected to our system and every student using technology daily," Sherer says. "When you have computers and telephones in every classroom, it opens education to the entire community. If education is going to be of utmost importance in this country, it's critical that parents become true partners with us, and you can't do that if you can't communicate. Most parents don't have the time to visit the school regularly, so we'll use the telephone system and e-mail to communicate with them. There are no more excuses for parents and teachers not communicating.

"The Avaya network is enabling us to move from dissemination of knowledge to learning," he adds. "Students will have a lot more responsibility now, with the teacher becoming a facilitator of learning. They can have the confidence that they can rely on other people to help them, because the network is breaking down the four walls and opening the entire system to students."

The system is network-based, so students store their information on World Wide Web servers, not on disk drives. Instead of inserting floppies into the computer disk drive, they use a "smart card" the size of a credit card placed into a computer the size of a thin notebook.

The software that students and teachers use is on a Web site run by The Learning Station™. The Learning Station supplies software over the Internet the same way that residents subscribe to cable. This way, schools do not have to spend money on new programs or upgrades.

To access the Web site, the District uses Sun Microsystems' Sun Ray™ System thin client-servers and a complete, state-of-the-art Avaya data and voice network backbone, featuring Cajun™ and DEFINITY® solutions.

"The cooperation from Avaya was unbelievable," Sherer says. "They did not hesitate to do the job correctly. I never in my life saw anybody as thorough as their project manager. Because of him, we know where every computer is, where every switch is, and everybody knows how the entire system operates."

Other vendors were considered, Sherer says, "but Avaya had the most practical solution that fit into our financial structure. There was much discussion about whether we wanted to go with locally managed premises equipment or a central office approach. Avaya gave us top-of-the-line voice and data switches, and we cost-justified everything. But the decision was not a financial one. Avaya won on top quality and top quantity at reasonable cost, plus the reputation of the company.

"We're moving at the speed of business," Sherer said, "and it's happening because of Avaya. I can't say enough about them — and not just about the equipment, but the quality of the people."

The contribution that Avaya made at the Newark Unified School District is in step with the company's focus on enabling enterprises to succeed in the eBusiness age by providing advanced communications hardware, software and solutions. The company is a global leader in messaging and structured cabling solutions, and a global leader in call centers and voice communications systems. Avaya has nearly one million business customers in more than 90 countries, including more than three-quarters of the Fortune 500.