

Avnet Enterprise Solutions San Felipe Del Rio Consolidated School District

It isn't often that a school district can boast technology so far on the bleeding-edge that it rivals Fortune 500 companies. San Felipe Del Rio Consolidated Independent School District is one of the fortunate that does own those bragging rights.

This K-12 school district, located along Texas' border with Mexico, is spread among 25 different administrative and educational campuses. Initially, communicating between the locations was a challenge at best.

"Our original network infrastructure was very unreliable," said Donnie Weaver, Technology Director for SFDR. "Some areas weren't cabled at all and other areas that were cabled weren't working properly. It was a big mess."

The school district had other problems as well:

- costs for over 800 POTS telephone lines were excessive and offered few features
- teachers needed time and money to travel to conferences
- most classrooms did not have access to the network and the Internet
- most important of all, students didn't have access to mediums that encouraged more advanced learning.

SFDR needed a change in order to make the grade. With help from Avnet Enterprise Solutions, SFDR staff members began exploring products that would increase their capabilities while cutting costs.

After six months and two demos, they found their solution in Cisco's "Architecture for Voice, Video and Integrated Data" (AVVID). However, in order to support the solution, they needed to implement a complete WAN/LAN infrastructure,

which would cost \$4.8 million. A grant seemed the easiest and quickest way to raise funds for the project. Christine Ricker, Avnet Enterprise Solutions account manager, again stepped in to offer her assistance on both pulling the grant application together and designing the network.

Phase One

After securing the grant, Avnet Enterprise Solutions started work on the WAN/LAN infrastructure, which became known as Phase One. Cabling with Avaya's new outdoor ODP 50 Micron Fiber Optic Lazer Speed Cable began mid-summer of 2000. In addition to the other unique aspects of this project, SFDR was the first company to install that type of cable in the world.

The new infrastructure also included 24 Cisco Catalyst 6500 series switches and nearly 200 Cisco Catalyst 3500 series switches interconnected via redundant gigabit fiber links and over a hundred VLAN's. Avnet Enterprise Solutions also replaced the network operations center with a Windows 2000 sever farm containing 10 Dell Quad Xeon processor PowerEdge servers and a Dell fiber channel storage area network.

Because SFDR could not afford any downtime once school was in session, the district maintained two networks during the installation of the network cabling and equipment, making the final switchover during the week of spring break. AES provided a service contract for an on-call engineer to provide the maximum uptime.

"At that point, we had our server farm up and running, a new mail server, a new domain, etc. We were ready to transition everyone to the new network," said Weaver.

Phase Two

The second phase consisted of implementing the rest of the AVVID solution, which allowed staff members to intercon-



nect all systems to one infrastructure and cut costs. They also extended Avnet Enterprise Solutions' service contracts. Because staff members could already show a substantial cost reduction, the school board approved the \$1.8 million price tag for this phase from out of the local budget.

“Before, we had over 800 CentraNet telephone lines paying approximately \$200,000 per year to the local telco,” said Weaver. “Now, we have three T1-PRI lines providing 36 outside lines to our approximately 1,200 IP telephones. We eliminated a huge cost while increasing the capabilities and features of our telephone system as well as being able to expand our service to include a telephone in every classroom.”

The new Cisco IP phone system offers many features to users that were unavailable previously. Voice mail is one such feature, and now every teacher and staff member have voice mail capability.

But, probably the most exciting aspect of AVVID is the Video On Demand. Staff members and educators can use the system for videoconferencing, staff development training and student education.

“Before, we needed to maintain a large library of videotapes. Now, our videos can be digitized and stored on the server for everyone to view at the click of a mouse. Instead of a teacher having to make arrangements for a VCR and TV to view videos in the classroom the teacher can simply browse the video collection online.” said Weaver.

During that critical year, Avnet Enterprise Solutions also provided an on-site pc technician and Help Desk support. The Help Desk allowed AES to provide the first line of help troubleshooting. For many calls, such as a lost password, AES could assist them right over the phone, and only dispatch the technician when absolutely necessary.

The solution

The entire project, which went live on August 2001, just before the fall semester began, will be an incredible boon to SFDR. “Every classroom has Internet access, every teacher has an e-mail account and a telephone with voice mail,” said Weaver. “This has really increased teacher-parent communication.”

Other benefits include more server space, so students and teachers no longer need to carry floppy disks around – and the advantage of online grading and attendance. Teachers can input daily attendance and grades on the network, so staff members can have immediate access to those records. Other savings include the costs of videos, teacher training and travel.

“What’s exciting to us is the ability we now have to provide a greater range of technology and services to our teachers and staff that will provide a positive impact on our students,” said Weaver.

