Case Study: Serban Sound & Communications

RFK High School Gets Edge on Media With Thomson Grass Valley
By Kevin Mortimer

When students at the newly built Robert F Kennedy High School, in Delano, California arrive for their first day of classes in August, they'll be greeted with spanking new classrooms, professional-style sports facilities, and a new state-of-the-art audio-visual media laboratory complete with broadband Internet access and a campus wide video-on-demand system.

Likewise, teachers will have access to the system and hundreds of educational videos stored on a Thomson Grass Valley MediaEdge3 server that can be displayed in their classrooms, in the main auditorium, or anywhere else on school grounds, and they can do this independently of any other user of that same video. The system uses the Internet Protocol (IP) to send audio and video presentations as easily as email and enables multiple users to view the same file simultaneously, at their own command.

So, for example, one teacher can start watching a video with her class and then pause it to make a teaching point, while a second teacher in another room (at the same time as a student requests it in the Media Lab) can watch the same video--stored on the same MediaEdge3 server--from beginning to end without stopping. Each user can also set "chapter points" (representing a section of a video) and then watch only that portion—immediately or at a later date--without having to view the entire video program.

All of the multiple streams are coming from the MediaEdge3 server, located in the school's Media Lab. The system comes standard with a terabyte of storage, enabling media-savvy schools like RFK High School to store hundreds of videos in a single box. And additional storage can always be increased as the need arises. The MediaEdge3 servers in place are made up of the Thomson Gras Valley MediaEdge3 software loaded onto a specially configured PC-based HP Proliant ML370 server.

"The MediaEdge3 system provides an incredible teaching tool, and one that can be used in a variety of ways, based on what the teachers want to do," said Brian Richards, president of Serban Sound & Communications. His company installed the Thomson Grass Valley MediaEdge3 equipment (hardware and software) at RFK

High over a six-week period this spring. “They like having media available at any location, at any time. The reason is that teachers are competing for students’ attention in a world with lots of visual distractions. The system has to work smoothly and easily, or students won’t use it.”

Founded in 1968, Serban Sound & Communications is a total system integrator located in Bakersfield, California that services a wide variety of AV clients--from K-12 schools to hospitals and health care facilities--throughout the state. They’ve installed the MediaEdge system in several schools over the past few months. They also install all of the necessary Category-6 wiring, data networking, telecom systems, as well as the audio-visual components that can include video projectors and touch-screen control panels, for different applications.

At RFK High School each classroom is equipped with a MediaEdge3-STB3 set top box that requests, receives and controls the video feeds via a handheld remote control device. The school’s Media Lab features dozens of MediaEdge3 client PC workstations. High-quality digital videos are delivered over the school’s broadband local area network (LAN) on demand, within seconds. Content can be sent to a computer in the Media Lab, up on a projector for large group viewing, or viewed on a portable cart with an LCD screen and MediaEdge3 set top box that can be wheeled into any area on school grounds and plugged into the school’s LAN. Several of these carts will be used to retrieve content for display in areas of the school that don’t have a projector.

Students can create multimedia projects and then have them “broadcast” campus wide using MediaEdge3 over the school’s LAN. The MediaEdge3 server is linked to a campus-wide TCP/IP network, enabling student and faculty to ingest media and deliver it instantly. The server is constantly being loaded with new videos, either at the school or sent over the Internet from other schools in the district. Likewise, other schools in the area can access videos stored on the RFK’s MediaEdge3 server as well.

“The beauty of the MediaEdge3 system and the use of IP an infrastructure is that it is an open system that will support a variety of formats and software applications,” Richards said. “So you can add different software products and video formats as you go along and have them live on the system without any hurdles or bottlenecks that limit access.”

Although the RFK High School AV system was installed among new construction, Richards said he’s installed MediaEdge3 systems in older schools with existing

computer networks and it worked perfectly. They were able to set up two-way questions and answer sessions and special multimedia events that were stored on the MediaEdge3 server's hard drive, then play the video through the school's existing video infrastructure.

Because schools have limited budgets for AV support, the MediaEdge3 system provides a cost-effective way to support their educational mission. Traditionally schools have had to subscribe to monthly educational AV services to obtain videos for teaching, or borrow from other schools, which takes time and effort. With MediaEdge3, existing videos (which are usually on aging VHS tapes) can be stored on the server's hard drive and added to the playlist. These videos are then available instantly. Content can also be shared with other schools over the Internet, enabling a school like RFK High to continue to expand its library at a minimal cost, or most times no additional cost at all.

"There's no question this type of video retrieval system is the way of the future for schools at all levels," said Richards. "It allows teachers and students to get instant access to content that was hard to get or not available at all. The MediaEdge3 system offers the most flexibility of any similar type of AV system and certainly the most value for the investment.

"Traditional systems require a separate cabling or MATV backbone, which can be expensive to deploy," Richards said. "The MediaEdge3 server system uses IP technology so it allows us to work with the existing Internet connections and IT networking found in most schools today. In addition to TV screens, we can also feed video projectors and computers from a central location. That's pretty powerful technology."

In addition to RFK High School, which is part of the Delano Joint Union High School District, a number of other schools, such as Mira Monte High School, and Independence High School, both located in Bakersfield and part of the Kern High School District of California, will also start their school year with MediaEdge3 AV systems installed.

"On top of the content availability, the system is allowing students to develop good AV and presentations skills that will serve them well in the real world," Richards said. "For teachers, the system is invaluable in how it captivates students' attention and gets their message across in a way that students fully understand."

Over the past two years Serban Sound has installed more than 50 AV systems, using a variety of technologies, but after having success with it at RFK and other schools, the company said it will recommend the Thomson Grass Valley MediaEdge3 system almost exclusively going forward. Richards said when a school's AV system operates successfully; his company has done its job. That's where he gets the most satisfaction.

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