SUCCESS STORY
Since its start in 1964, The Derryfield School in Manchester, N.H., has offered an outstanding co-educational college preparatory education to students in grades 6-12. The school has a rigorous academic program, small classes and rich opportunities in visual and performing arts, athletics and extracurricular activities.

The four-building school is surrounded by 84 wooded acres, and has a 400-seat auditorium, two music/drama rehearsal rooms, two art studios, two art gallery spaces and a sculpture garden. It’s also equipped with a technology center, a library and three fully equipped science labs.

COMMUNICATION CHALLENGE
When the school administration realized it did not have a dependable method for communicating emergency events across the entire campus, they quickly implemented a number of technological changes.

“We take safety very seriously, and some of the challenges we faced were interconnecting our buildings – having something happen in one and not being able to communicate with the others,” said Gary Harper, Director of Facility Operations, The Derryfield School.
“There are times we need to communicate situations quickly to all students, faculty and staff. Now that we’re connected, these messages go to all four of our buildings at the same time.”

Having depended on fire alarm systems from NOTIFIER, installed in all campus buildings more than 11 years ago, The Derryfield School looked to capitalize on that proven technology.

Working with local life safety integrator, BK Systems Inc., The Derryfield School was able to re-use its existing peripheral devices, needing only to upgrade its fire alarm control panels to NOTIFIER NFS2-640 panels. Digital Voice Command (DVC) from NOTIFIER was integrated with each panel to provide the emergency communication capabilities the school campus needed. The system is set up to send out prerecorded messages pertaining to any type of emergency. Microphones at each control panel also enable authorized personnel to broadcast live voice alerts.

“There were many programming features we were able to potentially employ, giving us the flexibility to program specific messages for various situations,” Harper said. “Now there’s a voice telling them the information they need to know instead of a blaring alarm with no instructions.”

**CROSS-CAMPUS CONNECTIONS**

Tying together all fire alarm control panels onto one network would allow for easy access to information and control of any system from any panel. Emergency voice messages would also travel over this network to all buildings.

“The school wanted total control during any emergency that could happen on campus, whether it was a tornado, an active shooter or other kind of serious threat to the students,” said Karlton Klardie, President, BK Systems Inc. “We set out to ensure communication between buildings and provide total control of the campus for emergency preparedness.”

To support the campus’ NOTIFIERNET network, BK Systems installed fiber optic cable within and between buildings. This network setup using fiber not only supports a high-speed of data communication between panels and real-time mass notification, but also provides a high degree of survivability. Therefore, if one or more components on the fire alarm network suffer damage, possibly from fire or other threats, the remaining pieces of the network continue to operate properly — sharing information and continuing to broadcast emergency voice alerts.

“The new NOTIFIER technology has advanced substantially, and we needed the latest cutting-edge technology to integrate all the campus buildings together,” Klardie said. Now, four fire panels in the four different buildings allow administrators to take control of a situation from many buildings or locations.

To offer more immediate access to real time network information, NCA-2 Network Control Annunciators were installed at each building’s main entrance, plus one was installed in the Gymnasium Lobby.

Harper said because of the school’s positive experience with NOTIFIER products, it was just a matter of working with BK Systems Inc. to determine which products would meet the needs of the school. Ultimately, the new NOTIFIER system allows end users to program specific buttons that would tell students and staff when the event was a drill or alert them to a real emergency and provide instructions. All alerts, whether live or recorded messages, can be sent with the touch of a single button.

There were several challenges to updating the system — programming the entire network, making sure the fiber optic cables were routed correctly and properly updating the programming algorithms to accomplish the necessary tasks. Updating the campus’ fiber optic network was a major undertaking, but Harper said it had positive ramifications, allowing interconnectivity between the panels.

It also took BK Systems’ expertise to make sure the communication between all four systems was consistent in messaging.

**FUTURE UPGRADES**

The major phases of The Derryfield School’s fire alarm and emergency communication systems upgrade is complete. However, Harper is continuing to work with BK Systems Inc. to tie in the phone system, which he says will help make the campus even more secure in a crisis management situation.

“We worked closely with Mr. Klardie and talked about how we could expand our emergency communications in the future,” Harper said.

Beyond using the microphones on the fire alarm control panels, the school hopes to utilize the phone system to make announcements. Once completed, this phase will allow authorized personnel to pick up a phone on school property, punch in a code and use the voice communication system to relay specific messages across campus. In addition to emergency alerts, the school will be able to utilize the messaging system in non-emergency situations — for day-to-day announcements too. Ongoing use of the school’s emergency communication system will ensure authorized personnel are comfortable utilizing the system — especially during emergencies.

Another future upgrade being considered is the addition of two outdoor, giant voice speakers from Whelen, located at the Upper Campus and one located at the Lower Campus. The far-reaching communication capabilities of these speakers will help to ensure everyone on the 84-acre campus hears emergency alerts.

**LOOKING FORWARD**

While the safety and security of the students, faculty and staff at The Derryfield School is the foremost concern of administrators, the new system is also having a positive effect on the marketing of the school. With a new school year, students are participating in mock drills to get started and familiarize themselves with the new system. In addition, the school plans to conduct two drills per year.

“This new system is a great way for us to show parents that we put the safety of our students first,” Harper said. “We’re looking toward being cutting edge and setting ourselves apart from the competition. Other schools do evacuation drills and fire drills, but bringing it to this level of communication is extraordinary.”