



Founded in 1834, Franklin College is located in Franklin, Indiana, about 20 miles from downtown Indianapolis and serves 1,060 students, many of whom live in dorms on campus.

Student Request for Emergency Communication System Gets Fast Response

In need of an emergency communication system, a residential college campus installs a two-way radio callbox system that fits time-and budget constraints.

When student members on a safety and security committee at Franklin College, a small residential 4-year liberal arts college in Indiana, expressed interest in a surefire way for students returning late at night to the newly opened outlying parking lots to communicate instantly with campus security in an emergency, the administration listened and responded fast. The college, founded in 1834 and located on 187 largely wooded acres in Franklin, about 20 miles from downtown Indianapolis, serves 1,060 students, many of whom live in dorms on campus.

Callboxes Are Faster Than Speed Dial

The students pointed out that even though most everyone carries a cell phone, by the time someone in need takes it out, dials it, and the call connects, rings, and is answered, that person could already be explaining the problem to security on a reliable emergency communication system. The saved time could be very valuable in an emergency. The administration wanted to accommodate the students as quickly as possible, despite the less-than-ideal timing of the request, which came in the middle of the budget year when funds for capital improvement projects had been allocated.

“Typically, adding an emergency communication system is a significant investment,” noted Thomas Patz, Project Manager for Organizational Development & Safety at Franklin College, which is loosely affiliated with the Baptist Church. “The college’s comprehensive safety and security committee looked at available technologies that would meet this need, with both budget and speed of installation prime considerations.”

“We found many emergency communication systems require hard wiring that is very expensive and labor-intensive to install. In our case, hard-wiring would require a lot of trenching, which would add to the cost and, while classes were in session, cause disruption to the flow of traffic,” Patz said.

“Furthermore, down the line, we felt that maintenance of any installation would be easier with a wireless system – no corrosion of wires over time, no gnawing attacks by rodents and other small animals underground which could result in severed wires,” he added.



One of many conveniently located radio call boxes on the 187 acre, largely wooded campus.

For Franklin, Wireless Is The Way To Go

The school looked at several wireless technology solutions, both traditional two-way radio and cellular, but realized cellular systems have the disadvantage of monthly air-time fees and the risk, if a tower goes down, that service could be interrupted. Administrators decided to go with a business band two-way radio system of strategically placed radio call boxes that would take advantage of the existing reliable radio infrastructure on campus and that would fit within budget constraints. (The radio callboxes are designed and manufactured in the USA by Ritron, Inc.)

“We looked for a radio system with enough range to cover the fringes of campus and also have built-in interference immunity against cell phones and pagers,” Patz explained.

After quite a bit of research into options that would mesh with the college’s existing communication system, the administrators decided upon a ruggedized UHF radio callbox system equipped with stored voice message capability. The units were programmed to work on the same fixed business band frequency already being used, thereby limiting additional capital outlay. (The ability to leverage the existing radio system equipment by adding many different types of two-way radio products and solutions to be compatible with legacy systems is a big advantage for many colleges.) The call boxes are 12VDC powered (also can be equipped with alkaline or rechargeable back-up batteries) and can be PC programmed to be compatible with virtually any VHF or UHF business band radio system.

Scalable Callbox System Accommodates Campus Expansion

The system has up to a two mile line-of-sight range, for consistent service and functionality all over the campus and is scalable, so units can be added or moved as needed to accommodate growth and changes in future layouts.

For that range, the system uses a radio repeater that was part of the college’s existing infrastructure, with redundant backup systems to that repeater in place in case of power outages or if a lighting strike destroyed the main repeater. (Security staff tests the system bi-weekly for any equipment issues.)

When the button on the callbox is pressed, a pre-recorded message comes across the speaker stating, “please wait, security has been alerted.” Simultaneously, an attached strobe light mounted to the pole atop the callbox station begins flashing and a specific location message identifying the callbox (pre-recorded on the integrated voice chip) is sent throughout the network of radios carried by all on-duty roving security personnel.

All security personnel radios monitoring the radio network hear the location message so that those closest can head right to the area where the call was made. “Since every radio receives the emergency call we have faster response time and increased response flexibility,” Patz noted.

Parking lots are also equipped with radio call boxes.



To talk from any callbox location, each callbox utilizes a push-to-talk button. The user presses and holds the button and begins to speak after the beep and releases the button to listen. The speaker reaches all radios on the system, creating in effect a “group” call to everyone on the network that eliminates any need to repeat the message again and again.

A two-way radio contractor installed the system while a local metal fabricator designed the freestanding posts and the presentation of the emergency call boxes. There was no need for a central call station. “The installation was very quick. Once we received delivery, installation was complete within three days – with about just an hour required at each location.”

The college also installed call boxes in various locations at new playing fields and walking trails recently opened on the edges of campus. When extended range is required, it is easy to add an external antenna to the callbox or the callboxes can be programmed to operate through radio repeaters.

“Though the system has been used only a handful of times since we installed it we have been very happy with the implementation. If there is an emergency situation in the parking lot and it is used once where security can respond immediately, it is worth it,” Patz says.

Ritron, Inc., is a privately held, U.S. company, founded in 1977 and located in Carmel, Indiana. The company specializes in the design and manufacture of wireless voice and data communication equipment for the commercial, industrial and military marketplace. For more information please call 800-872-1872, Email: ritron@ritron.com or visit www.ritron.com