Northwestern University

Simple Way Is Best Way for Campus Emergency Notification System

Here's the way it usually happens when you need to put in a new communication or network system. You have to prepare yourself. Really prepare yourself. There's the budget; always the budget. There's the review and analysis of technology and providers. Do you expand, upgrade, integrate, or completely replace what you already have? Then, there's the work—and the planning. You have to prep your staff. Hire, train or re-train. Bring in contractors. Figure out how you're going to make all this happen, while still keeping the current system operational. Add to this you still have to keep up with your regular, daily responsibilities. Oh, and you work in a highly complex institutional environment: a major U.S. university.

In other words, there's a long road ahead.

The Information Technology department at Northwestern University shortened the road.

And it all started with a 9 x12 yellow box. →

VOIP Emergency Notification System by Valcom:
Northwestern University, *Evanston and Chicago Campuses, Illinois*

Challenge:
The university needs a reliable, network-managed emergency notification system (single location and mass) that replaces outdated dormitory telephone technology, is easy to operate, and satisfies risk management standards

Solution:
Valcom Emergency Notification Provides
- **Full IP Solution**
- **Uses Existing Network and Infrastructure**
- **Location ID and System-Wide Monitoring**
- **Alert Tones, Alert Messages and Voice Paging**
- **Converts to Two-Way (Talkback) Upon Activation**
- **Powerful, Flexible, Robust, Durable Construction**

VALCOM
Easy Professional Loudspeaker Paging

An Application Whose Time Had Come

Northwestern University is a private institution serving 20,000 students, 2,500 faculty, and another 5,500 staff. It was founded in 1851 in the U.S. in what was identified then as the Northwest Territory. Northwestern has three campuses, one in Qatar, and two in Illinois, off Lake Michigan: a 240-acre campus in Evanston (a suburb just north of Chicago) and a 25-acre campus in Chicago.

The people in the Telecommunications Field Operations group at Northwestern have seen their fair share of changes in technology over the years. The group is responsible for installing and maintaining the physical communication infrastructure at the university, among other tasks. Like most colleges, up until just the last decade, residence halls were hardwired with their own telephones. The cost of the system became more difficult to justify as students converted to cell phones, seemingly overnight. The change was happening at colleges all across the country.

Such a change is not really a surprise for experienced and capable IT departments at institutional settings like Northwestern. Higher education, in particular, is all about the expectation of progress. Change is inevitable.

But Northwestern still had a big question to answer. Old telephones may be coming out of buildings, but there still needed to be a reliable communication link to all people on campus— including students in resident halls who would no longer use or pay for provided phones. Thousands upon thousands of cell phones buzzing about campus was one thing, but a single word kept popping up when the very idea of disconnecting phones first appeared to be a reality: safety.

"How will we facilitate emergency calls in the event they're needed?," was the resounding challenge from across Northwestern given the impending cultural and technological shift. As a regulatory necessity, and more importantly, looking at the best interest of all people on campus, the university needed an emergency public address system. Recent campus tragedies at several schools only intensified the demand to provide as safe an environment as possible.

The IT team considered the requirements by beginning at thebeginning: looking at the existing infrastructure. There might not be a need to reinvent the wheel.

"Ideally we wanted a seamlessly integrated system that's cost effective," said Wendy Woodward, director of technical support services. "A reasonable solution for us to deploy."

So Simple, Unbelievably Simple

Such a solution was identified when Jay Needleman, field operations manager, ran across a product while attending a technology conference.
"We knew we had solutions," Needleman says. "We also knew this would be a good opportunity to improve. But the solution from Valcom was so simple, we couldn't believe it at first."

With the removal of telephones, rooms were left with the two-pair telephone wire. "We could also put in paging," Needleman recalled his thinking at the time. "Valcom is the leading provider of telephone-access paging systems, after all."

But of course, the two-pair wire to former telephones wasn't the only thing in the room. There was the electrical wiring. And there was the computer network. The infrastructure was functional, robust, reliable. And everywhere.

"I was attending a conference, not really shopping, but thinking about this [situation] in the back of my mind, and I met someone from Valcom who had this 9x12 yellow box..." he says. "It runs on VOIP, it works on our Cisco switch, and we can centrally manage it. I immediately thought, 'We can do this!'"

Leveraging Existing Resources

Northwestern University was able to leverage existing infrastructure in the deployment of this solution. It's so much easier to dismantle a system if you're replacing it with all new components that will not only give you more features and more control, but do so using the existing network already in place.

Under VOIP, management is superior. Needleman talks about "registering [components] to the network." →

"We have system-wide monitoring 24/7/365," he boasts. "We know instantly when one [unit] goes off line, we get the specific location, and we can dispatch a tech."

The field operations manager talks about the Valcom VOIP Emergency Notification System as if it was just installed, though the first system was completed in August 2007. The reaction makes sense, because the system runs over Northwestern's Cisco network, which means adds, moves, changes are as easy as adding, moving, or changing an IP address.

"The stand alone system works great," Needleman begins, as he paints the picture of the application. "We have the push button alert boxes [VIP-9890EM Vandal Resistant IP Emergency Call Station] in every hallway, within 40 feet of every room, each with location ID. We have UPS running over the Ethernet switch that supplies up to two hours of power during an outage, and we can open up speakers for an alert tone or mes-

sage. When activated, police are dispatched within ten seconds. The Valcom system is very efficient, it is priced competitively, and we can page one speaker, the floor, the building, the sector, or all."

Northwestern University currently runs the system from two service operation centers. Needleman cites the benefits of redundancy and easy maintenance. ("We're in our fourth year, and we've maybe had to do service on two," he says. "It could be as simple as a loose connection, but with VOIP, you see it and can respond quickly.")

In addition to the emergency call stations, North-western University also uses Valcom flush mount talkback speakers [VIP-172 IP Talkback Speaker] which are custom color international safety blue, mounted in lecterns for speakers in classrooms and at events.

Approximately 300 Emergency Call Stations and 50 lecternmounted Talkback Speakers, along with a Page Server [VE-6001] two Audio Ports [VIP-801] and a Quad Network Station Port [VIP-814] complete the current system. It's about as simple a configuration as you can have.

Authorized personnel can make announcements to selected zones or mass notifications, the system has pre-recorded emergency alerts with exit or lockdown instructions as well as emergency tones. And any individual can push the button to alert university police, whereupon the speaker converts to handsfree talkback (two-way) communication until the called party terminates the call.

What's New Should Be What's Best

After describing the emergency notification system at Northwestern University, Jay Needleman admitted the impact of campus tragedies in the news played a critical role in decision-making.

"Virginia Tech [mass shooting on April 16, 2007] made us think," he says. "We had to do something fast."

He remembered sending his own daughter to college in another state. At that time, Needleman said that college had one emergency phone, located in the middle of campus. Times have changed—it's not just the technology.

Director Wendy Woodward agrees.

"Northwestern University is progressive and known for being a world class leader in higher education," she states. We have customer expectations to meet, and we depend on quality products and services to meet or exceed those expectations. We had a challenge, we solved it, and we're very happy with the result."

Very often an adequate solution is not a simple one. But Valcom fit the Northwestern University campus—easily.

It's nice to have a short road when you can.

Sources: www.Valcom.com; www.class-connection.com; www.northwestern.edu

VALCOM
Easy Professional Loudspeaker Paging