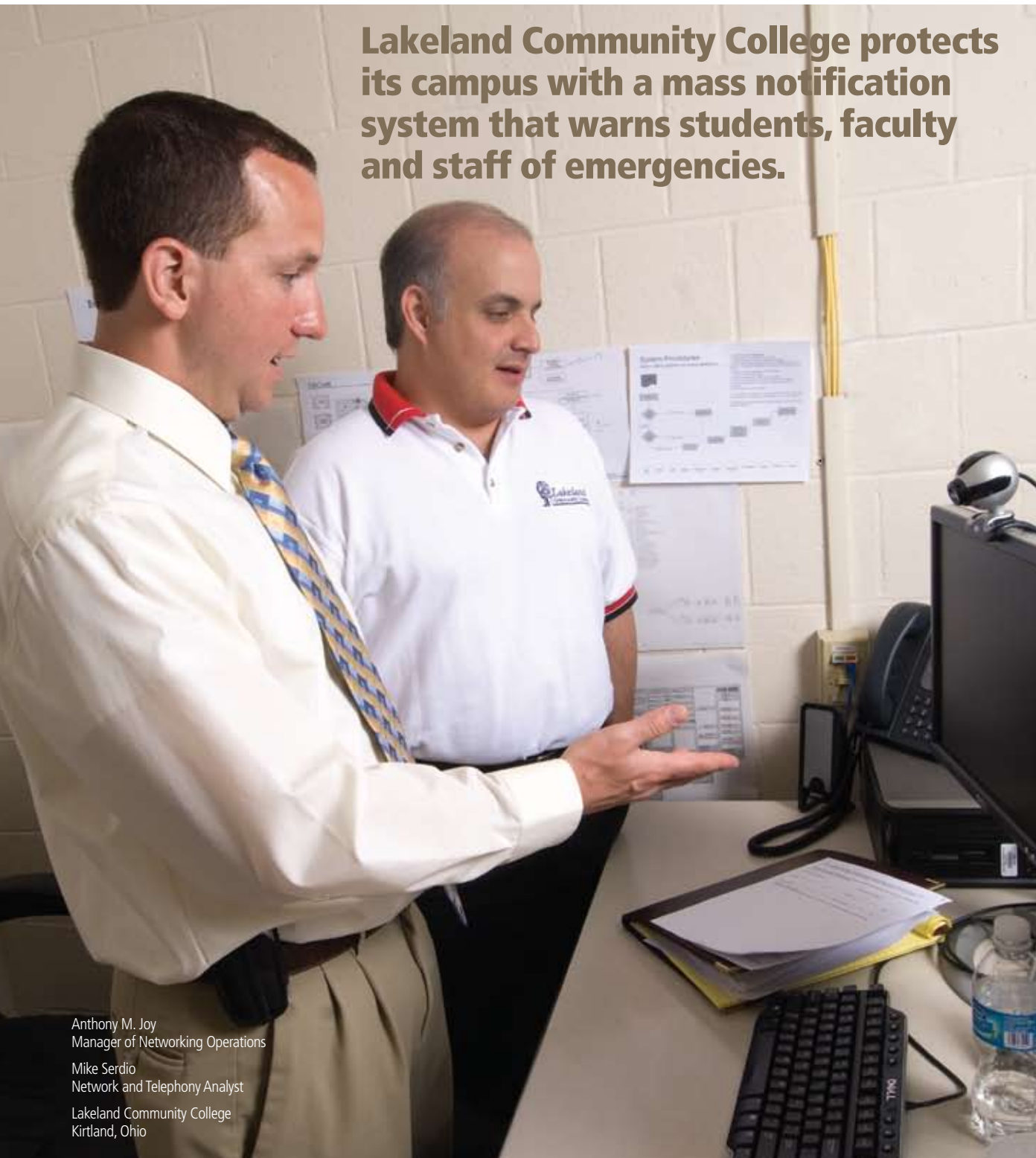


# Getting the Message Out

**Lakeland Community College protects its campus with a mass notification system that warns students, faculty and staff of emergencies.**



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Networking administrator Anthony M. Joy not only secures Lakeland Community College's technology infrastructure from hackers, viruses and other malicious network-based threats, but he also plays an important role in helping campus police with improving the school's physical security.

That's because technology is aiding the college's police department in protecting the more than 12,000 students and nearly 1,300 faculty and staff members on the Kirtland, Ohio, campus. While the college still uses closed-circuit TV cameras, it's installed 20 IP-based security cameras throughout the 400-acre, 10-building campus 22 miles east of Cleveland.

More recently, the college installed a new mass notification system to alert the school's students, faculty and staff of emergencies and immediate threats to their safety.

"Our police department is big on keeping us on the cutting-edge of security," says Joy, Lakeland's manager of networking operations. "Our ability to broadcast notifications immediately can help us avert a tragedy. It's prompt, immediate and people can go right into action."

A mass notification system integrates a communications and technology infrastructure with a comprehensive emergency response strategy. If an emergency strikes, college administrators and public safety officials can immediately notify and provide instructions to the campus population on how best to protect themselves through phone calls, e-mails, text messages, loudspeakers or flat-panel displays.

The technology has grown increasingly popular in higher education following recent high-profile shootings on college campuses, including the shootings at Virginia Tech in April 2007, and more recently the shootings at Northern Illinois University in February. The technology can alert the campus to a range of other emergencies, from fires to severe weather, such as tornadoes.

The centerpiece of Lakeland Community College's mass notification system is CDW-Berbee's InformaCast software. Through a web-based interface, police can blast prerecorded or live audio messages to Cisco Systems' IP phones, computers and IP-based loudspeakers on campus.

For less critical emergencies, such as severe weather alerts or nearby highway closures, the police department can send text messages that pop up on IP phone and computer screens.

The InformaCast software, which is tightly integrated with Cisco's Voice-over-IP (VoIP) equipment, was perfect for the school because the IT department had previously standardized on Cisco's IP phones. The school has about 550 Cisco IP phones in faculty and staff offices and in most classrooms, so an emergency announcement can reach most of the campus population.

In the future, the college may also install IP-based loudspeakers and use the setup as a public address system in hallways, auditoriums and other open areas where students congregate to ensure that everyone hears the emergency messages.

"It's a tool for us to get emergency information out and critical to our mission as a police department to provide campus safety," says Lt. Gerald Jenkins of the Lakeland Community College Police Department. The return on investment is immediate, the school's IT administrators and police say.

## Choosing the Right Technology

Lakeland Community College's Police Chief James T. McBride urged school administrators to purchase a mass notification system last year shortly after the Virginia Tech shootings.

At the time, if there was an emergency, campus officials could send voice mails to every IP phone on campus, but it would require each recipient to pick up the phone and listen to the voice mail. The school could also send e-mails to everyone, but neither option was immediate enough for emergency situations, Joy says.

He called CDW•G and learned about CDW-Berbee's InformaCast system, and discovered it was perfect for his college's needs.

In 2005, the college had upgraded its network infrastructure from Fast Ethernet (100Mbps) to a 10 gigabit backbone, and in the process built a converged network for voice and data traffic using Cisco networking gear. Joy needed a system that was fast, easy to use and had the ability to deliver messages to the school's Cisco IP 7900 Series phones, computers and IP loudspeakers.

CDW-Berbee's InformaCast system comes in three main pieces. The first is the InformaCast IP Broadcasting Solution, which is server software that ties into the Cisco Unified Communications Manager, formerly called Call Manager, an IP-PBX that routes and manages phone calls over the network. The software allows the school to broadcast audio and text messages over the network and onto Cisco IP phones, IP loudspeakers and computers.

The second piece is the InformaCast Desktop Agent, which is software that is installed on users' computers to receive audio and text messages. The Agent plays the audio on the computer, while text messages pop up on the screen. And last is the InformaCast Compliant IP Speaker, which is an easy-to-install loudspeaker system for indoors and outdoors.



During his research, Joy learned that besides in-house notification systems that colleges install and manage themselves (such as the InformaCast system), some vendors offer hosted, web-based solutions. He explored hosted solutions but decided against them because of the negatives.

“It would have taken too much of our Internet and phone bandwidth,” he explains. “We’d have to poke holes in our firewalls, and the integration between a hosted system and our current Voice-over-IP system was difficult to accomplish, so the logistics would have been nightmarish.”

Joy says InformaCast takes up little bandwidth and doesn’t overwhelm a converged voice and data network. It’s a multicast system, meaning if the police send one audio or text message to IP phones and PCs, that one message takes up the same amount of bandwidth, whether the message is sent to five devices or 500 devices.

If faculty or staff members are on the phone when an emergency notification is issued, the CDW-Berbee system can overlay the message over the call, so staff can still hear the message while they are on the phone, Joy says.

For less urgent messages, campus authorities can send text messages on an IP phone’s large menu screen. The IP phones alert users of an InformaCast message with a beep. And if the message is long, users can press a button on the phone to scroll down and read the rest of the message, he says.

## Easy Installation

Lakeland Community College purchased the CDW-Berbee solution in May 2007 and had it installed over the summer. The installation process was easy, says Mike Serdio, a network and telephony analyst at the school.

Serdio installed the InformaCast server software on an existing server that runs on the Windows Server 2000 operating system and features a 3.06GHz Pentium 4 processor, 3GB of RAM and about 500MB of hard drive space. “The number of phones you have will determine the size of the server. It’s not a resource hog at all,” Joy says.

From there, configuration with Cisco’s Unified Communications Manager was straightforward. Through a web-based interface, the IT staff simply had to tell the Cisco software where to find InformaCast’s IP address. The only major configuration change was implementing IP multicast on the network, Joy says. The entire installation process took about two weeks.

“It was straightforward, and CDW-Berbee’s documentation was really good. It walked me through all the steps,” Serdio says. “There weren’t any ‘gotchas,’ and it functions as designed.”

The IT staff installed the InformaCast Desktop Agent on the PCs of about five staff members who didn’t have Cisco IP phones at their desks, Joy says.

One day, during implementation, the campus data center suffered a power outage, forcing e-mail services to go down temporarily. Francisco Porras, the school’s vice president for technology, thought it was the perfect opportunity to test out the InformaCast system.

So the IT staff blasted an audio message to every classroom and office phone, stating that the college was experiencing power problems and that e-mail services

would be back up in two hours. The test worked perfectly, Joy recalls.

“No one knew that we were in the midst of implementing the system, so everyone was shocked, but it worked great,” Joy says.

## How the Technology Works

With InformaCast, police officers simply go to a web interface, sign in with their user name and passwords, and with just a few clicks of the mouse, send text-only, audio-only or both text and audio messages.

For example, to send a prerecorded audio-only message, the user clicks on an “audio-only” button on the web page, types their phone number extension and hits the “record” button. Once the user clicks record, the InformaCast system calls their phone extension and the user picks up the phone and records the message.

When the user is ready to send the message, he or she hits “click send message” on the web page, and the message is immediately sent throughout campus.

If the user wants to broadcast a live message, he or she hits the “live audio” button, picks up the phone and speaks live to all the other phones.

John Theiss, a communications officer with the college’s police department, says the police department uses text messaging for most scenarios, so it can save audio messages for the most extreme emergencies.

Since InformaCast was installed, the police department has used the system to alert staffers of extreme weather conditions, such as snow advisories. Because the school is next to two major highways, Interstate 90 and State Route 306, the police department has also sent text messages notifying staff of traffic delays and providing suggestions for alternate routes as they leave campus after work, he says.

The police department has numerous text messages prewritten. Often times, Theiss only has to change a date or a word or two in a message, and he can send it within a minute, he says.

At Lakeland, police and college administrators have created different contact lists for different needs. They’ve created contact lists for the IT staff, for faculty and for staff. They also plan to create contact lists for each individual building, Joy says.

The IT department is also using InformaCast for future technology-related emergencies. IT staffers can use InformaCast to alert just the IT department of problems, but to improve customer service, they can make announcements to the broader campus community as well, Joy says.

Lt. Jenkins says InformaCast plays a pivotal role in campus safety, but it’s just one of many technologies that help protect students, faculty and staff.

The school is looking to augment the InformaCast system and will potentially install IP-based loudspeakers this summer. The school is also exploring technology that allows the police to send text messages straight to students’ and parents’ cell phones and personal digital assistants. Lakeland previously installed 18 large flat-screen televisions, and through a different computer system can display messages on them as well.

Those technologies, combined with surveillance cameras that allow campus police to keep an eye on campus and assess situations, will protect the school population if a serious threat arises, Lt. Jenkins says. The police department regularly runs tactical exercises with other local law enforcement, so they're ready if an emergency does occur.

"All these things are pieces of a puzzle, so if we have a situation that develops, we have the flexibility and ability to guide students, faculty and staff on what they need to do," Lt. Jenkins says.

## Learning About the System


When Joy called CDW•G seeking advice on a mass notification system, CDW•G account manager Anya Ashley set up a web demo to show off InformaCast's capabilities.

"We were very impressed with that. We brought some people [from campus] to view it, and brought it back to our police department. We said this is our best solution, that we believe we should go with it, and they gave it thumbs up," Joy recalls.

Joy says Lakeland is a long-time customer of CDW•G, but the InformaCast acquisition was the first big project where it relied on the company, and he came away impressed with both CDW•G and Ashley.

"CDW•G handled it well. Anya's always right there when we need her. Her best quality is that she's quick to respond," Joy says.

Ashley says she's seen a big increase in interest in mass notification systems following the recent spate of high-profile campus shootings. "It's a difficult conversation to have. Nonetheless, it's a vital conversation to have," she says. "Many colleges are proactively calling us and asking if we have anything that can help prevent something like Virginia Tech or Columbine."

Overall, the Lakeland Community College police department is pleased with the notification system, Theiss says. "It's worth its weight in gold," he says. "It gets messages out so fast. We've received tremendous feedback and praise from the faculty and staff." 

## CDW-Berbee's InformaCast System

The mass notification system has three main pieces:

**InformaCast IP Broadcasting Solution server software:** This requires at minimum a Windows 2000 or Windows 2003 server running on a 2.5GHz Pentium-class processor and 1GB of RAM. It works with the Cisco Unified Communications Manager to create different paging zones, which are different groups of people to send messages to. The software is compatible with most Cisco 7900 series IP phones.

**InformaCast Desktop Agent:** Software installed on users' computers to receive audio and text messages. The agent plays the audio message, while text messages pop up on users' screens, a tool that is more immediate than e-mail.

**InformaCast Compliant IP Speaker:** This is a loudspeaker system for indoors and outdoors. The speakers, manufactured by Atlas Sound, support Power over Ethernet connections and require only a RJ-45 connector to connect to the data network.

CDW-Berbee also offers DORA (Direct Observation Realtime Alerting), an application that ties InformaCast with security systems, such as motion detectors.

For example, InformaCast can broadcast to a specified paging group or send e-mail alerts if a motion detector is triggered or if an unauthorized door is opened. The software can also broadcast an audio alert to the area, warning the potential intruders. DORA supports contact closures manufactured by Perle.

CDW-Berbee executives say they can customize InformaCast to meet any requirement colleges have, such as the ability to send text messages to students' cell phones. If administrators want to tie a video surveillance system with InformaCast, CDW-Berbee staff can write a custom application that tells all video cameras to point to the direction of an incident once the mass notification system is triggered.

To find technology products related to this article on disaster preparedness, please see pages 2 and 8 of this catalog or visit [CDWG.com](http://CDWG.com).