

# UCF Protects Campus With Integrated and Redundant Mass Notification System



Photos courtesy of University of Central Florida

In order to provide a safe and secure campus community, the University of Central Florida (UCF), located in Orlando, Florida, wanted to equip itself with the latest in emergency communication systems. This was no small feat for the largest university in Florida and second largest in the nation. The institution has more than 56,000 students plus nearly 10,500 employees across 11 regional campuses.

Prior to the Virginia Tech shooting, UCF had a security task force in place. One of the key issues that they discussed was the need for a mass notification system, taking a proactive approach to make the campus safe. Then the tragedy at Virginia Tech happened and like other campuses, the MNS project became a university priority.

As a former security forces and anti-terrorism force protection officer in the U.S. Air Force, UCF's Director of Emergency Management Jeff Morgan applied his security experience to help develop an MNS for the university.

"I like to refer to what we needed as layers in an onion," says Morgan. "We wanted a mass notification solution that had several layers; layers for redundancy. It is important to design a system that is both integrated and redundant for several reasons.

"First, integration enables faster notification through all of the MNS solutions, from outdoor warning systems to mass E-mails and from digital dis-

play signs to in-building notification systems. We were looking for a one-button, simple solution. Secondly, it's just more efficient. We know that our dispatchers can be overwhelmed in an emergency, and we wanted something easy for them to use, clicking the mouse a couple of times versus signing in four or five different systems. Thirdly, the redundancy aspect allows us to reach out to faculty, staff, students and guests in more than one way."

Relying on just one technology could result in a large part of the population not receiving the message.

## UCF TAKES A STEP-BY-STEP APPROACH

University officials first looked at their current infrastructure and identified communication systems that were already in place. They discovered that UCF's phone systems were not designed for reliability in contacting the masses and E-mail was the only system being used at the time. However, they did find that they could use existing voice capable fire alarm control panels

(FACP) to save on equipment and installation costs for indoor notification.

"One positive was that we didn't have a bunch of disparate communication systems that needed to be integrated," says Morgan. "We could basically start from scratch."

Searching for vendors was the next step. Liability was an important factor in the search. UCF started looking for vendors with approved MNS products from the Department of Homeland Security's Support Anti-terrorism by Fostering Effective Technologies Act (SAFETY Act), which would provide legal liability protection for the institution in the event of a terrorism act. Cooper Notification was the only vendor that had this certification for an MNS product, which included WAVES in-building and wide-area MNS solutions.

Morgan says that since the university borders two counties – Orange and Seminole – he reached out to them to see what type of public warning systems they had in place. Both counties utilize Cooper Notification's Roam Secure Alert Network (RSAN) emergency text and voice alerting system.

"Using RSAN seemed like a natural fit so that we could tie our system to the county systems," adds Morgan. "Located near UCF is Valencia College, which also utilizes RSAN, it was the best solution for all to have one integrated and interoperable emergency communications system. The fact that RSAN could be integrated with the WAVES was also a critical factor in our selection process."

Through Cooper Notification's Roam Secure Information Exchange (RSIX), UCF and Valencia RSAN systems can share in real-time daily information and emergency messages between campuses as well as with the Orange County system, OC Alert and Seminole County system, Alert Seminole. RSIX

## How UCF Paid for the Upgrade

With UCF's proactive approach, the university covered the majority of the MNS investment through university funding. However, for the five additional indoor notification systems that are currently being installed, UCF is utilizing a grant from the Florida Department of Education. In addition, the UCF construction standards were revised so that any new facility will have an indoor MNS installed and will be covered under the new construction funds.



can help mobilize additional resources when needed and improve situational awareness. It also connects campus and county officials to local information sources (traffic, news, National Weather Service and monitoring systems) to automate alerting.

## UNIVERSITY ADOPTS OPT-OUT REGISTRATION

At the same time, the university began further developing its current emergency operations guide into a comprehensive emergency management plan, which includes communication directives and a list of who has authority to send messages.

UCF officials also had to determine how they were going to get students, staff and faculty to sign up for UCF Alert ([emergency.ucf.edu/ucfalert](mailto:emergency.ucf.edu/ucfalert)), the emergency notification system powered by RSAN. Morgan says that when they conducted research on either choosing an opt-in or opt-out option, they found that with opt-in, only 20-30 percent of students would sign up for E-mail and text message notifications. This required students, faculty and staff to log onto the Web site themselves and fill out their contact information.

"We chose an opt-out option, in which we signed up 100 percent of the UCF community," he says. "Every student, faculty and staff member is initially signed into the system. They can then choose to opt-out at their discretion."

As of July 2010, the university has 69,411 enrolled on UCF Alert, which

includes faculty, staff, students, county personnel and local first responders.

## IT'S ALL ABOUT INTEGRATION

While UCF was implementing UCF Alert, it began installing WAVES high power speaker arrays on the main campus for exterior voice alerting. This intrusive system sends out emergency messages in real time and has the capability of alerting the entire campus or individual areas, depending on the scope of the emergency.

The reasons the UCF officials chose WAVES HPSAs are because it's a giant voice system that not only gets attention with tones, but also provides clear, intelligible voice announcements with specific instructions in the event of an emergency. There are currently four HPSAs providing emergency notification to the 1,450-acre plus academic campus. Two more will be added by the end of the year, plus a mobile speaker array that will be used for special events and football games. HPSAs function as an integral component of the WAVES system controlled by its integrated base station (IBS), which issues commands and provides data messages to the WAVES transceivers, relaying the messages to the HPSAs.

Next, the plan was to integrate 30 buildings that have the voice-capable FACP's with WAVES so that the indoor and outdoor notification systems could be activated through one system. By installing digital wireless transceivers within the buildings to connect to the FACP's, this allowed the university to

use existing infrastructure and save on installation costs. With five buildings in the works and three new buildings under construction, there will be a total of 38 integrated buildings by the end of the year. Currently, one outdoor digital display sign has been integrated with the MNS, and the university is looking to integrate its interior signs as well as 300 desktop radios, and the campus' television and radio stations.

## INVOLVE WIDE VARIETY OF CAMPUS DEPARTMENTS

"It's important to bring various departments together, including IT, police, building code, fire marshal, fire code, facilities improvement and maintenance, and involve them in the design of your system," says Morgan. "For example, IT was critical to the type of system that we were selecting given the fact that they control all of the wireless frequencies on campus. During football games, we have a lot of television and radio broadcasters on campus. We required a secure, wireless system, like WAVES, that will not interfere with other wireless systems no matter how large our special events are."

Morgan adds that they also needed buy-in from the university police department in order to host and manage the integrated base station (IBS) as well as participate in exercises and drills. The code department needed to know what was going into and onto buildings to help get proper plans and documentation signed off to allow the project to stay on schedule as well as ensure it met all code and university standards.

## System Warns of Life-Threatening Situations

"Our rule for sending out messages is that we don't send out a notification unless it's life threatening or has a large impact on our campus community," the University of Central Florida (UCF) Director of Emergency Management Jeff Morgan says. Since UCF has had its integrated MNS in place, the university has issued alerts for tornado and severe weather warnings.

According to Morgan, the system was also used during a bomb threat in one of the parking garages on campus. UCF sent text messages to the entire campus community to inform them to stay away from the garage until it was deemed safe by emergency personnel. WAVES indoor MNS was used to send isolated alerts to those staff and students located in the buildings, surrounding the garage to stay indoors until they received further notice. Once the situation was safe, the indoor MNS also issued notification to let those in the buildings know it was safe, and they could return to normal operations.

By integrating RSAN, WAVES and other systems into one user-friendly solution, UCF campus officials can now communicate to everyone via a single, secure, interface.

"Cooper Notification's interoperable system allows users to focus on the emergency at hand, not getting bogged down with utilizing multiple systems," Morgan says. "With the click of mouse, our mass notification solution allows dispatchers to deliver live or recorded event-specific messages within seconds to sirens, indoor and outdoor speakers as well as cell phones and E-mail."

## COOPER NOTIFICATION: DELIVERING CRITICAL ALERTS WHEN IT MATTERS MOST

Cooper Notification, the industry's most comprehensive, multi-layered mass notification system provider, delivers critical, campus-wide emergency communications for universities across the United States. With approximately 500 MNS installations around the globe, other installations include U.S. military sites; major metropolitan areas such as Washington, D.C., Philadelphia and Orlando; state and federal agencies; airports; and hospitals. These systems play an important role in emergency alerting and information sharing among government leadership, first responders, critical infrastructure providers, businesses and citizens.





# Mass Notification Solutions

## Protect. Alert. Inform.

When communication is critical, an integrated mass notification system is essential. That's why Cooper Notification provides multiple means to inform your people.

Utilize our Roam Secure Alert Network™ (RSAN) emergency text and voice alerting, WAVES® outdoor High Power Speaker Arrays, SAFEPATH® indoor voice evacuation systems and Wheelock® appliances to alert your cities, counties, colleges, commercial or industrial facilities today.

For additional information visit [www.coopernotification.com](http://www.coopernotification.com)



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