– As Featured In –
SECURITY MANAGEMENT
A PUBLICATION OF ASIS INTERNATIONAL

PHOTO COURTESY OF UNIVERSITY OF HAWAII AT HILO

FIND THE FIRE

THE UNIVERSITY OF HAWAII AT HILO UPGRADES ITS FIRE PANELS FOR INCREASED SPEED AND RELIABILITY. **BY HOLLY GILBERT STOWELL**

THE UNIVERSITY OF HAWAII AT HILO (UHH), founded in 1941, is located on the largest island of the Hawaiian archipelago, Hawaii–also known as "the Big Island." The school offers 38 undergraduate areas of study, including a renowned astronomy program, to approximately 3,600 students.

The Hawaiian skies over the central Pacific Ocean offer a spectacular view of the heavens.

But despite the campus's magnificent panoramas, the university's security staff found itself gazing too often at fire panels that weren't functioning properly, says Ted LeJeune, project manager at UHH.

When the campus began major renovations about five years ago, the security department ran into challenges with the fire panels, which worked via radio signal. "We were starting to experience issues with the reflectivity and the inconsistencies of the radio system," LeJeune says, "so we were having trouble passing our final fire inspections with the fire marshal."

The institution's fire system includes panels that intermittently report back to a central station in the campus security office. "On a regular basis, the panels transmit signals that say, 'Hey, I'm here, I'm doing fine,'" LeJeune explains. "And as long as we get that heartbeat notification, the security office knows that we don't have any problems."

The fire panels report any issues to the central station, including triggered smoke detectors, pulled fire alarms, and offline panels. When any of these alarms are triggered, "we get an immediate notification to our campus security office that we have an issue with a building, and we need to dispatch somebody to investigate," LeJeune notes.

In the campus security operations center, which is staffed around the clock, security staff members monitor a large screen that displays the fire life safety system's current status, as well as active alarms. The screen allows operators to scroll through notifications and keep an archive of reports. In case of fire or another life-threatening hazard, the fire department is contacted.

The campus roofs are made of corrugated steel. But whenever the Hawaiian sun would hit the metal rooftops, the signals could get diffused or jammed, causing the radio-based fire alarm systems to report inconsistently, or not at all. This led to a host of issues for the campus security department.

"We were having intermittent connectivity and even losing connectivity to some of the locations because of the radio signal reflectivity of our roof systems," LeJeune says.

Besides the connectivity and transmission issues, the old radio units were burdensome to maintain, and an outside engineer had to travel to the campus to service the units.

> ***"They were thrilled that we were getting a more stable network and that we were able to more clearly manage and supervise our system."***

These challenges led to a conversation with Digitize, which provides several aspects of the campus's fire life safety system. In the fall of 2016, Digitize suggested lan-based radio units that connect into the university's existing fiber optic cable and Ethernet system. "We've done several upgrades over the last few years to standardize and stabilize our Internet," LeJeune explains, "and it was just a natural extension to add Digitize to the lan system because we already had the existing backbone."

The lan-based radio units allow the end user to remove the frequency transmitter on the fire panels, and connect into either the Ethernet or fiber connections in the buildings. This landline connection enables the panels to report back to the central station within seconds.

UHH launched a pilot project in the spring of 2017 to test the new product on its recently renovated College of Business and Economics building. The university upgraded its base unit in the campus security office to accommodate both the radio frequency and the lan inputs.

During the testing, the lan-based units successfully and accurately reported all issues to the central station. "Our pilot project went fantastically," LeJeune says. "We were able to retrofit the remote unit [with the landline], and we were able to clearly communicate and program the base unit," he says. The school also brought the fire department in to observe the new system. "They were thrilled that we were getting a more stable network and that we were able to more clearly manage and supervise our system."

Since installing the new system, the campus has not experienced any issues with fire alarm panel reporting. Over the next several months, the campus plans to add additional lan-based units to at least 25 buildings. Some of the larger buildings will have their own unit while groups of smaller buildings can share units, LeJeune adds.

With the new system, UHH security staff can service the panels themselves, rather than relying on an outside engineer. "Digitize has given us in-house training, so that we can not only diagnose but also put new systems online, and program them at both ends to communicate consistently and properly," he notes. "The ability to work on them internally...and the training that we've been able to get from Digitize has just been a real major step forward for us."

He adds the new system allows security to fully focus on the issues that deserve attention. "It's about having confidence that we have consistent communications, and that we're not getting dropouts or false alarms," he says. "This allows the security office folks to focus on their assigned tasks rather than chasing ghosts and false alarms."

FOR MORE INFORMATION:

Abe Brecher, Digitize, www.digitize-inc.com, abeb@digitize-inc.com, 973.219.2567