PRINCETON UNIVERSITY
ENHANCING CAMPUS SAFETY WITH PINPOINT ACCURACY

Founded in 1746, Princeton University is located in New Jersey, about halfway between New York City and Philadelphia; and is one of the oldest universities in the United States with beautiful stone building architecture. The 500-acre campus is home to nearly 15,000 students, faculty and staff. It brings close to 850,000 visitors to the region each year.

The vision for Princeton University's Public Safety Department is to ensure the safety of the university's assets – students, staff, employees, visitors and buildings – using technology that supports community caretaking. Community caretaking is a little bit different than community policing. It focuses on the approach to proactively build relationships of trust and communication with members of the campus community to collectively build a safe university environment. Every officer has a role to play in acting as liaisons to student groups, athletic teams, residential colleges and the surrounding communities.

Technology plays a big role in providing officers with easy access to integrated and uninterrupted communications to rapidly respond to requests for service and incidents. Over the past few years the university has invested heavily in public safety technology to continuously advance their safer campus efforts. But safety is not only about technology, it is also about the public safety officers who are out in the field engaging with the community and the ability to react quickly to situations as they arise. "When I think of safer campuses, what comes to mind is the ability to have situational awareness of what it is happening; the ability to react very, very quickly; the ability to allow people to go about the business of a university without concerns in terms of how they're going to communicate with us, and how we're going to respond to them." states Keller Taylor, Infrastructure Operations Manager, Princeton University Department of Public Safety.

Like many other Ivy League schools, Princeton University buildings do not have precise street addresses, names at the top of the buildings or numbers over each door. Buildings are marked by a small plaque placed at the front. This can make it difficult to navigate the campus and distinguish one building from another. Over the years, the university has built detailed maps and online apps to help people navigate the campus. But when placing a call to 9-1-1, the lack of building markings can pose location challenges for callers, call takers and first responders.

The university's 9-1-1 Center serves as the hub for campus safety and service, handling traditional 9-1-1 calls, 10-digit emergency calls, non-emergency calls, blue light phones, blue light towers, parking lot phones, elevator phones, and serves as the campus operator after hours. As the campus made the change to a VoIP-based phone system, they also sought to replace their current call management system. They wanted a solution that would easily integrate with the current campus analog system, the roll-out of the VoIP system and pave the way to preparing for Next Generation 9-1-1 based on state-level adoption.

Featured Call Management Software Solution:
CallWorks CallStation with RapidSOS
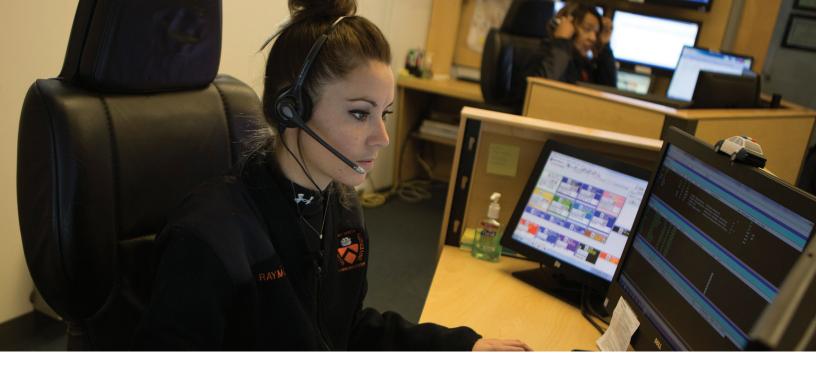
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ACCURATE CAMPUS LOCATION, CRITICAL TO AN EFFECTIVE RESPONSE

"Location has always been a challenge for visitors calling into our emergency center. They have no idea where they are," explained Taylor. Callers would describe their location as being in a large stone building near the center of campus, next to another large stone building. The university had previously tried an emergency location-based app for students and faculty that required individuals to launch an app to place a call. Taylor went on to point out, "We found the app was very accurate but the problem was the adoption factor. Students were just not

interested. They had been trained as children to dial 9-1-1, and not launch an app before calling for help."

With many emergency calls coming into the Communications Center generated from a cell phone, the seven carrier tower sites on campus do not always provide precise enough location data. When calls were placed to the Communications Center, the map data showed the location radius of the cell phone call as approximately a half mile in some cases, which covers a significant portion of the Princeton campus. And, the carrier-provided location data currently does not accurately detect when people move around — either down a hallway or out a door.

"We needed a location solution that would provide more accurate information," said Taylor. We selected an emergency platform that can provide pinpoint location data to the Communications Center and integrate easily with our call management system. The solution is very unique and fits us very well. It's currently running, and we're having tremendous success," stated Taylor. "Now, instead of call takers looking at a location 'circle' they are looking at pinpoint location accuracy."

UNIFIED DATA IMPROVES DISPATCH AND SERVICE MANAGEMENT

When evaluating a new emergency call management system, it was critical to Princeton that the system included an integrated mapping application. The university GIS department has very precise maps of the campus buildings, including sub-basements, multi-story dorms and stadium sections. The system selected was able to easily integrate the detailed university mapping information along with the location accuracy solution to provide the Communications Center a view of a caller's precise location quickly on the map. For example, call takers can identify a caller from the eastern door of a building, moving in the direction of the north door of the building, which enables dispatchers to direct emergency personnel more accurately for a faster response.

As a dispatcher, Janine Aziz saw the benefits immediately. "I've seen an improvement. It is easier to bring up a map and look at different locations on campus. We can see where we need to send an officer to assist a student, and that's easier for us to dispatch."

When used in concert with the recently upgraded trunked radio system, the dispatcher has easy access to multiple tabs for different functions such as: a primary tab to dispatch campus and outside responders, a tab for quick and easy access to all support agencies on campus, another tab for access to backup communications systems, and yet another for standing agency patches and creation of patches on the fly. This not only improved efficiencies but also helped save physical space using "all-in-one" stations.

Another key challenge Princeton had with their old call-taking system was limited, timely reporting. In the past, it was a very manual process to create reports, and therefore, they could only generate reports once a month. Now, reporting is automated, with more visibility to performance metrics which enables faster analysis to ensure service goals are achieved. As Taylor explained, "With this solution, reports are automatically generated every evening. I get metrics on all call types processed, time of day, duration of calls, etc. It is a really important operational management tool."

Since available space is always at a premium, the solution also needed to be able to conserve space. To that end, 'all-in-one' workstations were required to be located at the console as part of the solution. This was significant as it eliminated the need to remotely locate the processing unit from the dispatcher interface and the associated transport devices.

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PREPARED FOR THE FUTURE

The Princeton University Public Safety Department continues to invest today for the future. Leveraging the best options available at the carrier level, radio level and at the FirstNet level since the state has opted in. As technology is adopted, the university ensures they have a solution that benefits them now and that will support them well into the future.

PREPARE FOR NG9-1-1

CallWorks CallStation is NG9-1-1 ready and offers an efficient architecture that is scalable for agencies of all sizes. It easily integrates with Voice over IP and provides location mapping in partnership with RapidSOS to immediately see where calls are coming to enhance dispatcher response.

Read more about Emergency Call Handling software at: motorolasolutions.com/software

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