



University of California Berkeley

pc/psap Enhances 911 Communications and Campus Safety

THE CHALLENGE

The University of California Police Department in Berkeley serves one of the most tech-savvy communities in the United States. The university's 50,000+ students, faculty, and staff have long been early adopters of the newest computer and mobile technologies. So it's critical that, as a public safety answering point (PSAP), the department's communication center be able to support leading-edge technologies.

Unlike colleges and universities that have police officers for general security but use the local PSAP to handle 911 calls, the UC Berkeley Police Department's 70 full-time officers handle all campus-related security issues and 911 emergencies. Unfortunately, in early 2008, their system for handling 911 calls was a bit behind the times. Upgraded in 2000 to handle Y2K, it had been—according to Jeanine Edwards, UC Berkeley Communications Center Supervisor—“kept on life support since then.” Edwards added that the system “was outdated, maxed out, and unable to support our implementation of enhanced 911 (E911).”

As the team began to consider the functionality necessary in the new system, they knew that it would need to provide mapping and locator information, especially for cell phones. As University Police Captain Margo Bennett said, “Everybody has a cell phone; it's the primary mode of communication. And we reached a point where we needed to upgrade to be effective in our 911 response.”

In addition to mapping and locator information, the new solution would also have to be quick and

robust, with an extremely high level of reliability and a way to incorporate changing technology. “We insisted on having a technology that could carry us into the future. We knew that we'd need to incorporate VoIP, texting, and pictures into our 911 response. We had to have an upgrade plan,” Edwards said. Additionally, the team had to consider additional communication vehicles the community might adopt as well as NENA Phase II compliance requirements.

THE SOLUTION

Working closely with the university's IT department, the team did their homework. They turned to Altura Communication Solutions, which helped guide them toward its partner Amcom Software. UC Berkeley chose the Amcom pc/psap solution after looking at related implementations of the software at the nearby Bay Area Rapid Transit (BART) Police Department and American Medical Response (AMR) in Stockton. “We were very impressed and felt confident seeing the software in action, especially since it was using the same phone system we had,” Edwards said. “Being in law enforcement, we can't afford to be a beta site.” Seeing the software's functionality and how it worked in real-world settings for other organizations solidified their decision.

Once installed, the system impressed Edwards and Bennett. It integrated smoothly with their Avaya PBX system. It was, according to Edwards, “bigger, badder, and faster,” and she was happy that her team of 10 dispatchers quickly embraced the system and enjoyed working with it.

OVERVIEW

The University of California was chartered in 1868 and its flagship campus—envisioned as a “City of Learning”—was established at Berkeley, on San Francisco Bay. Today the world's premier public university and a wellspring of innovation, UC Berkeley occupies a 1,232-acre campus with a sylvan 178-acre central core. From this home its academic community makes key contributions to the economic and social well-being of the Bay Area, California, and the nation.

UNIVERSITY FACTS

- 35,409 students
- 2,131 faculty members
- 130 academic departments

POLICE DEPT. FACTS

- 70 full-time officers
- 800-1,200 911 calls a month (many are non-emergency)

BUSINESS DRIVERS

- Replace aging call center technology.
- Improve mapping and locator information.
- Continue to provide all on campus with fast response to safety issues.
- Implement a solution that could adapt to and grow with future communication advancements.

SOLUTION

- Amcom™ pc/psap 911 call center software

RESULTS

- Established a highly reliable, efficient system for responding to 911 calls.
- Installed a system that will keep up with new technologies.

“I feel the Amcom system will grow with us and help us address changes as they occur.”

Jeanine Edwards
UC Berkeley Communications Center Supervisor

Two key goals in implementing the overall system were to identify wireless callers and to continue to use important location data that had been developed by the University Police Department. Amcom's expertise in local automatic location identification (ALI) database integration and standard NENA 2 format data delivery to a customer's chosen mapping platform made it easy to achieve these goals. Using the system's auxiliary data function, Edwards modified the automatic number identification (ANI) database, inputting descriptions that made sense to her team. “We're not a regular city with

regular streets,” she said. “In cases where we don't have a building address, we can include data such as the ‘pathway between the bridge and the walkway’ so responding officers know precisely where to go.”

Another benefit of the system is the ability to transfer calls in a single click. The communication center handles approximately 1,200 calls a month, but not all are emergencies. Non-emergency calls can now quickly be rerouted to the appropriate resource, freeing operators for more urgent situations.

THE RESULTS

Today, pc/psap transmits the precise caller location for 16,260 campus Centrex lines; 3,664 campus dorm lines; 481 elevator, entry, and code blue emergency phones; and 231 main business lines throughout the campus. While the new system has brought peace of mind to both Bennett and Edwards, it's helped in other ways, too. “We are very data-driven in the decisions that we make,” Bennett said. “And the system's ability to track calls, give locations, give stats on days-of-week and time-of-day helps us figure out how best to staff the communication center. It also gives patrol information on how to staff different sectors around campus.”

Now when callers use cell phones to dial 911, pc/psap passes the ALI stream to a mapping system in the correct format to map the call using the coordinates of nearby cell towers to zero in on the caller's location. This is a great improvement over the previous process, which involved the California Highway Patrol receiving cell phone-based 911 calls and involving the UC Berkeley police team to resolve them. “It's a quicker, more streamlined way to respond to these calls,” Bennett said. “This was why integrating to the mapping functionality was so critical for us.”

Even the admissions department has benefited, as the system has helped reassure students and their parents. Noted Bennett, “Since the Virginia Tech incident, parents want to know how we handle emergencies, how responsive we are, and how we get things done.”

With the new system in place, Edwards and Bennett are comfortable they can now provide the appropriate police response needed to help keep their large community safe. But more importantly, as a major university campus where students and staff are first to embrace the next technological advancement, Edwards is confident UC Berkeley has a solution that will help them move forward. “I feel the Amcom system will grow with us and help us address changes as they occur.”



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