

Make Room for Mapping **Preparation for wireless goes beyond equipment**

By Susan MacFarlane

What do you do when you know you're going to need more answering positions, more equipment and space on the desktop for at least one more monitor? Improvise, of course.

We are all gearing up for the great shift to wireless mapped ALI, but it's not a level playing field. Some of us have the budget and resources to build for the future, while others have to put some innovative thinking to work to meet the challenge of implementing a new location technology.

You can put us in that second category. We are Tempe, Arizona, Police Communications and although we are serving a rapidly growing metropolitan area, we are relatively limited in our options for expanding the communications center. Since taking on the position of communications manager, it's been my mission to upgrade the comm center to meet the challenges of a growing population that, like everywhere else, is embracing the move to wireless communications.

The Flexible PSAP

Room has always been at a premium in our comm center. We are one of those PSAPs that must provide an adequate level of services for the resident population, while being able to expand instantly to meet two to three times that population for special events. We are a college town with big games, festivals, and major events. We need to be able to staff positions to meet these special needs. In addition, we needed to add equipment to the desktop to meet the need for mapped ALI.

My challenge was to take an already overcrowded room that was—quite frankly—a dark and dingy place to work, and turn that into a modern, expandable PSAP. Equipment was a challenge, furniture was a challenge, retaining and recruiting personnel was a challenge, and oh, yes, space was a challenge, too.

A Needs Assessment, which was mandated by the assistant chief, was completed and it came up with some startling recommendations. Based on the projections, we would need to add 24 more people. We also desperately needed a major change-out in equipment. We were dropping calls and the only way to get the ANI was to print it out. We had no MIS. No migration to mapped ALI. No integration. The old key system wasn't even being supported by the vendor.

When in Doubt, Knock it Out

The first thing we did was gain a little more space by knocking out a wall. I realize that's not a super high-tech solution, but hey, it works! Actually, it took some doing because we had to relocate the alarm coordinator's office and forklift out an old reel-to-reel logging

system. The switch from analog reel-to-reel to digital was key because the old system took up so much space. Now, the logger is on a server and we can save a year's worth of recordings in a drawer.

Once we had the footprint of the space, we were able to select a furniture vendor and set about designing a more efficient operations room. I am a believer in teamwork and putting your teams in communication with the various vendors. In this case, we started by working with the vendor to determine what kind of consoles, and configurations, would be meet our needs.

Paper Dolls

At one point, I had a group of supervisors use cut-outs representing the consoles to determine a configuration that would allow us to communicate freely. In the old center, we all faced the same way. To talk to someone, you actually had to stand up and turn around. The process of configuring the call-taking, dispatcher and supervisor positions was fun. Someone joked that it was like paper dolls, but it really worked.

Next, we presented a couple of layouts to our staff, and they helped make the final layout decision. With a new logging system and console furniture in place, it was time to select our telephone system. We wanted to select a system that had the ability to work in unison with our CAD and radio system to produce the desired results. Teamwork again would play a role.

In 1999, we upgraded our radio system to a Windows-based platform that could migrate and integrate as needed. The next step was to choose the CTI (computer telephony integration) system that would serve as a platform for call-to-car communications, including mapping.

It was critical to choose a system that was not only easy to learn and use. While many of our dispatchers and call-takers had some computer experience, most were used to handsets, headsets and pushing buttons. Our goal was to find an easy CTI system with the architecture that could integrate with new technologies that will be crucial in providing services like wireless location (mapped ALI), automatic vehicle location for our units, automatic crash notification and all the other possibilities we might have with unsolicited ALI services.

We invited what we had identified as the top vendors in CTI to provide demonstrations for our supervisors and staff. This ensured that the system we chose would be endorsed by our call-takers and dispatchers. At the same time, we were able to evaluate the product offerings according to our future needs.

We chose a system that our users liked and one that was able to integrate with our radio system. Our dispatchers like the interface and features much better than the old system, and it is a Windows-based system that can evolve and be expanded as needed.

Importantly, dispatchers have both 9-1-1 and radio applications on one screen. This not only saves real estate on the desktop, but also reduces repetitive motions.

The implementation was a coordination nightmare, but all in all, it went smoothly. We shipped out the old metal furniture. The new aesthetically pleasing, and ergonomically enhanced consoles made a big difference. Moving equipment and furniture in and out while taking calls 24/7 was a challenge. For a while we had two telephone systems in the room at the same time.

Training went smoothly with most our staff making an easy transition from key system to CTI. Even those with only limited computer experience found the new system easy to use. In fact, when it came time to cut over we switched the new system on at 2 a.m. and the old system was gone by 9 a.m.

We now have 13 positions, seven of which are dispatch positions that feature radio/9-1-1 integration. These dispatch positions have two monitors dedicated to CAD and one that shares telephony and radio. Call-taking positions feature two monitors: one for CAD and one for telephony.

Ready for Mapping

The 9-1-1 system spills ALI to our CAD, which was updated to a Windows version in 1999. The new desktop footprint will support mapping applications at every position, and the new consoles will easily support four monitors. Ultimately, with the addition of mapping applications and monitor, we will soon have the capability to locate wireless callers from all positions.

The pod-style layout of the operations room makes it feel much bigger, even though we've added people and functionality. Call-taking and dispatch can communicate better while sharing resources such as reference manuals. In fact, we have reduced seven sets of books to just two, which save time, space and money.

With Phase I testing now underway in Pima County, the State is moving toward a state-wide standard for implementing wireless location. In Tempe, we have selective routing in place with wireless carriers. With the implementation of mapping—planned the next budget period—we will be ready to go ahead with implementing Phase II location functionality.

The retrofit has not only made it possible to ramp up the comm center for mapping and wireless location capability, it has allowed us to add 16 new people and, of course, given us a much improved work environment.

In addition to her role as Director of Tempe Police Department Communications, Susan MacFarlane is an ENP with more than 18 years in public safety. As Arizona Chapter President of APCO, she resides over the State's joint APCO/NENA conferences and will chair the Western Regional APCO/NENA conference in 2002.

Tempe Police Department Communications cut over to a VESTA 9-1-1 system from Plant Equipment, Inc. (PEI) in February of 2001. VESTA integrates tightly with a Motorola CENTRACOM Gold Elite radio system and utilizes a MagIC information and records management system, also from PEI. For more information on PEI products and services, please visit www.peinc.com.