Local News

Public safety agencies getting in sync

By Katie Worth
Examiner Staff Writer 2/19/09

what's the frequency? The San Mateo County Deputy Sheriff's Association has said that the county's new digital radio system is not nearly as reliable as its old analog system. Regional public-safety agencies want all emergency responders on digital.Mike Koozmin/Special to The Examiner**REDWOOD CITY** – If a major earthquake were to strike one of the fault lines that runs through the Bay Area, emergency officials from across the region would largely rely on cell phones and land lines to communicate with one another.

Most radio systems used by the region's public-safety agencies are not compatible with those in other regions. The consensus is that this problem must be solved before a catastrophic emergency puts the region to a test, but the precise method for doing that is the subject of a heated debate — particularly in San Mateo County.

The controversy centers around disagreements over which system is better: the analog system that has been used by most emergency officials for decades, or digital technology that many — including the

federal government — believe is the radio system of the future.

In 2001, the San Mateo County's Sheriff's Office was the first public-safety agency in the Bay Area to convert to digital, a
$20 million investment that was hailed by some as a harbinger of the superior technology of the future, but panned by others as a poor and possibly dangerous substitute for the old analog system.

And now, eight years later, the county is primed to spend at least $20 million more to replace that now-outdated digital system with an upgraded one that officials say will bring San Mateo into the next generation of technology.

"Deputies I have spoken to feel the new radio system is average at best, while others think they are a serious officer safety concern," said D.J. Wozniak, president of the county's Deputy Sheriff's Association. "I would not want to see any more money spent on a radio system simply to talk to more agencies if it does not increase coverage in our own patrol areas."

Last month, county supervisors approved a $1.9 million expenditure — which will be reimbursed with federal dollars — to begin the replacement project, according to county Information Technology Director Chris Flatmoe. A consultant has already been hired to create a plan for the replacement and will lay out a proposal for the analog-to-digital conversion for each of the 20 law enforcement agencies in the county.

Reported problems with digital systems across the country, however, have left local police departments reluctant to part with the analog systems for the new technology.

When the Sheriff's Office converted to digital in 2001, each of the county's 20 local law-enforcement agencies was asked to join the venture. Redwood City was the only one to agree, but the city abandoned the system a few years later.

Patrol officers still have mixed feelings about the system, said Wozniak.

Some deputies said the new system simply "traded dead zones" with the old system, working in some places the old one didn't and vice versa, he said.

One officer said the system failed him when he was fighting with a parolee on Caltrain property, and he was not able to transmit for help. If the officer had not been physically stronger than the parolee, the end result could have been deadly, Wozniak said.

Flatmoe, who has been a leader in the county's push to move to a digital system, admitted the system had some problems at the start, ranging from a lack of adequate training to major flaws in the software that were later resolved.

These problems will not be repeated, Flatmoe said, and the new system will eventually allow for greater compatibility with other counties' systems as they also make the digital conversion.

Hillsborough police Chief Matt O'Connor, who chairs the San Mateo County Police Chiefs Communications and Technology Committee, will be among those who review the results of the consultant's study and cost analysis in a few months.

"Analog works great for us — it's absolutely bulletproof," he said. "As technology rolls out, there's bugs in it, and sometimes it might be better to let that technology fully develop and jump on board

when it's more dependable than problematic."

Such comments irk Laura Phillips, general manager of the Bay Area Super Urban Area Security Initiative, the regional agency that oversees distribution of federal homeland-security dollars aimed at preparing the Bay Area for an emergency or terrorist attack.

Phillips pointed to dozens of other municipalities across the nation that have successfully made the switch to digital.

"My world is one where we're focusing on catastrophic planning in the Bay Area," she said. "We're sitting on multiple earthquake faults. If police departments and sheriff's offices can't communicate with federal resources and state resources in a disaster, our public is going to ask us why we didn't."

But for police officials like San Mateo police Lt. Wayne Hoss, it's still unclear that the new digital technology is actually as advanced or reliable as the old standby analog.

"I'm all for technology, except it's got to be at least as good as we have now or better, and I've yet to hear a strong argument that digital will fix the [compatibility] problem," he said. "The technology's just not ready for prime time."

Bad reputation hinders digital radio's acceptance

In 2002, Philadelphia converted its old analog radio system to digital. By July 2008, there had been more than a dozen system failures, some of which endangered officers who were not able to communicate with dispatchers, according to news reports.

Last year, firefighters in Indianapolis said they wouldn't switch to the city's new $37 million digital radio system. They said the sound quality was worse than analog.

In January, New York canceled a $2.1 billion contract to build a statewide wireless emergency radio network, after three rounds of failed testing.

Its these kinds of problems nationwide that put public-safety officials such as San Mateo police Lt. Wayne Hoss on edge when considering whether departments should consider switching from their existing analog radio systems to digital.

Laura Phillips, general manager of the Bay Area Super Urban Area Security Initiative, a group charged with overseeing the region's homeland security emergency spending, said there are far more cases of successful digital conversions than the sensational stories of disasters.

"There are hundreds of systems that are using digital without problems," she said. "When there have been problems, it's usually due to poor project management or poor configuration, or having the tool but not being able to use it correctly."

She pointed to a new digital systems being installed near New Orleans.

"That's happened since [Hurricane] Katrina," she said. "They would not be building those systems if they thought they were unreliable. There are higher expectations now."

But Daryl Jones, who owns a business maintaining analog radio systems and advising communities

about those systems, said digital radios are simply more vulnerable to failure than analog.

“Digital trunked radio systems are dependent on a centralized computer,” he said. “If a failure occurs, which is very rare, the
failure is catastrophic.”

For Hoss, he said he’s just not willing to take a chance on a system that has such a bad reputation, earned or not.

“I often hear people who are pro-digital say that for every bad article about digital, there’s 10 articles about successful digital systems,” he said. “But to be honest, I haven’t seen any of these successful-system articles.”

Weighing the switch

San Mateo County’s 20 law enforcement agencies are considering whether to make the switch from conventional analog radio systems to digital. The pros and cons of going digital include:

Pro

- Recommended by the federal government
- Potential to send data and photos over the radio
- Difficult to hack
- Uses less bandwidth, creating more space for more channels of communication

Con

- Technology is still new, so there have been some failures and flaws
- More expensive
- Does not show up on a scanner, so media would not have access to information about police activities

Sources: Bay Area Super Urban Area Security Initiative, San Mateo County, San Mateo County Police Chiefs Association

The price of new technology

The San Mateo County Sheriff’s Office was the first Bay Area public safety agency to convert from analog to digital:

$20,000,000

Cost of San Mateo County Sheriff's Office digital radio system in 2001

$20,000,000

Minimum cost to replace/upgrade the digital system

8 years

Since the last digital system was installed

$153,000,000

Amount of federal dollars provided to date to Bay Area agencies to convert emergency communications to digital

Sources: Bay Area Super Urban Area Security Initiative, San Mateo County, San Mateo County Police Chiefs Association.

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