

Rocky Mountain News

High-tech radio to clear up mixed signals Federal grant helps Denver police order \$2 million system

By Ann Imse
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Denver police on Monday ordered a \$2 million piece of equipment that will allow officers and firefighters throughout the metro area to talk to each other over previously incompatible radios.

Thanks to a federal homeland security grant, the wall of silence among different cities and agencies is coming down. That barrier has been the state's No. 1 concern in case of a terrorist attack, natural disaster or, "God forbid, another Columbine," as Denver communications superintendent Dana Hansen put it.

At Columbine, hundreds of officers responded but were hampered by their inability to communicate on four different radio systems. Teacher Dave Sanders bled to death while waiting for help, in part because responders with one type of radio couldn't talk to colleagues with another type.

Unlike cell phones, which can communicate with cell phones of other brands, emergency radios won't work with other firms' technologies or across incompatible frequencies.

Colorado is building a statewide radio system, at a cost of more than \$100 million, that can be used by hundreds of agencies. But Denver, Aurora and Lakewood are on an incompatible system. The FBI and Boulder County use yet another.

The new equipment, manufactured by M/A-Com, uses software to convert a transmission from one radio system into audio that can be heard on another previously incompatible one, Hansen said. It uses voice-over-Internet technology.

The equipment was invented about two years ago. Denver officials looked at it in use in Detroit and then successfully tested it with 12 other agencies in Colorado last December. The metro area won a federal homeland security grant to pay for a system large enough to cover every agency in the region, and then it had to be put out to bid, Hansen said.

At \$2 million, the equipment is far cheaper than the hundreds of millions of dollars that would be required to convert every agency in the state to a single radio system.

The equipment will be installed in Denver's 911 center in the next 90 days, and then officers will be trained to use it.

Hansen said the equipment will be useful even in routine situations. For example, when a Douglas County sheriff's deputy serves a warrant in Denver, he may be at the back door while a Denver officer is at the front door, and their radios are incompatible.

"For that two or three minutes when they're knocking on the door, it's critical that they talk to each other," Hansen said.

With the new software and hardware, "they'll just need to switch positions on their radios, and they'll be able to talk to the other officer," said Denver police electronics technician supervisor Gary Pasicznyk.

The system will start with four "talk-paths" and expand from there, Hansen said. Each geographic area could have a pre-arranged talk- path, she said. In a disaster, some talk groups would be pre-arranged, while others could be added on the fly as needed for each team of responders, she said.

The system is capable of 200,000 conversation groups.

The agencies will have to agree on how and when to use the conversation groups so they don't overwhelm a single channel during an emergency, for example.

Hansen said she would like to see the system eventually go statewide.