

RadioResource

# MissionCritical™

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C O M M U N I C A T I O N S

## Colorado Agencies Take Interoperability to the Next Level

Like many other states, Colorado is on a quest to achieve statewide interoperability. A half-dozen major radio systems stand in its way, however, a fact that doesn't elude Dana Hansen, superintendent of communications for the Denver Police Department (DPD).

Since it would be financially impossible to abandon the equipment currently in operation throughout the state, Hansen and her team are exploring a new breed of radio networks that tie disparate systems and equipment to a common IP backbone. With the help of DPD and 12 other state agencies representing police, fire, and sheriffs' departments as well as the Colorado National Guard, radio system vendor M/A-COM demonstrated the integration capabilities of its NetworkFirst system for Colorado public safety officials.

In a fictional Amber Alert scenario, public safety personnel used their own radio equipment, whether it was analog or digital, UHF or 800 MHz, to communicate information about a lost child via the IP network. The demonstration was proof of concept for agencies that had not encountered this approach, according to Hansen.

"It showed that first responders can talk directly to each other for any day-to-day or large-scale event without dis-

patcher intervention by switching to a predesignated position on their mobile or portable radio," she said.

As opposed to mobile interoperability "patch" equipment that ties in disparate radios at the scene of an incident, an IP-based network operates on a live, 24/7 mutual channel. The network consists of a main switch installed at a central location and interoperability gateways implemented regionally at audio access points such as base stations or dispatch centers. The gateway links disparate radio equipment by converting audio into IP packets.

Colorado still has a long way to go before it achieves statewide interoperability, but it is well down the path via an IP-based network. According to Hansen, DPD has agreed to take responsibility for the main switch, purchasing it with homeland security funds. "I'd like to see a general system overlay in the Denver area by the end of 2005," Hansen says.

When complete, Colorado's network will be capable of handling up to 55,000 talkgroups and user capacity in the billions — all uniquely identified with an IP address. The best part, according to Hansen, is that users will get to keep their radio investments intact. "Nobody will have to change out their equipment."



Thirteen public safety agencies from across Colorado gathered in Denver on Dec. 9 to participate in an interoperability demonstration using M/A-COM's NetworkFirst IP-based communications network gateway.



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