

Customer Stories

Eagle County Sheriff's
Department, Gypsum
Fire Department, Vail
Police Department

Band 14 test led Eagle County, Colorado, agencies to join FirstNet

- **Agency/Organization Needs:** Eagle County struggles with coverage in heavily mountainous areas and rural terrain
- **Networking Solution:** The Eagle County Sheriff's Department uses FirstNet on phones and in-car computers; Gypsum Fire uses FirstNet Ready® cell phones, a satellite BGAN kit, a Sonim Rapid Deploy Kit, a Vocality Interoperability kit, hotspots, a Cradlepoint and a Microsoft Surface Pro X.
- **Agency value** – Agencies can stay connected to each other
- **Industry Focus:** Law enforcement, fire and civilian support personnel
- **Size:** Sheriff's Office has 48 sworn personnel; 24 detention deputies; and 12 civilian personnel supporting patrol and jail operations. The Gypsum Fire Department has 8 full-time firefighters, nine part-timers and 20-30 volunteer firefighters.

In many parts of the community, far off the interstate, the county could never rely on commercial service.

Eagle County sits at the top of Vail Pass in Colorado on Interstate 70. At its highest elevation – at Mount of the Holy Cross – the county is over 14,000 feet above sea level. At its lowest, as the terrain descends to the Colorado River, at just a little over 6,100 feet above sea level.

In many parts of the community, far off the interstate, the county could never rely on commercial service. The Eagle County Sheriff's Office, Vail Police Department and the Gypsum Fire Department struggled with coverage in the heavily mountainous areas and rural terrain throughout the county.

“That’s a lot of remote terrain,” Deputy Sheriff Kevin Kromer said. “A lot of people come up for recreation. The international ski resorts are a big draw. And most people are up here because they enjoy the outdoors and they like to go out and play. Plus, we have two wilderness areas.”

Vail Police Chief Dwight Henninger said the rugged terrain creates a lot of issues for the agencies – especially because the community gets about 2 million visitors a year.

Diverse geography and mountainous terrain create communications challenges for Eagle County agencies

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Fire Chief Justin Kirkland,
Gypsum Fire Department



Gypsum Fire Chief Justin Kirkland said his department, one of five fire departments in the county, responds to a variety of calls – including injured hikers, search and rescues and wildland fires.

“People get stuck when the pass is closed because of snow and ice and traffic accidents and those kinds of things,” he said “So, whether it's putting people up in shelters, or during a concert, we have a lot of people in one place. And it's really difficult to be able to communicate using commercial cellular service.”

Gypsum Fire Chief Justin Kirkland said his department, one of five fire departments in the county, responds to a variety of calls – including injured hikers, search and rescues and wildland fires.

So local agencies were looking for a solution to fix that problem – a reliable, highly secure network that would keep them connected when they needed it most.

That’s why they decided to join FirstNet.

“We cover 455 square miles and we need that connectivity to reach farther than just what happens in the town,” said Chief Kirkland. “We rely on FirstNet to give us that coverage in those fringe areas and those larger areas outside of town.”

Added Chief Henninger: “Having the FirstNet capability with priority and preemption has been very helpful for our officers.”

Challenging terrain

The diverse geography and the mountains create communications challenges for agencies throughout Eagle County, Deputy Kromer said. Radio signals and cell phone signals don’t go through mountains.

“So, we're somewhat limited in areas that we know we're going to have communications,” Deputy Kromer said. “You have to know where you're not going to have coverage. And you try and stay out of those areas. You don't do traffic stops in those areas.

“Some areas with the federal lands, you just can't get coverage,” he added. “So, we have to come up with other techniques, special permissions, even to fly helicopters in there for search and rescue operations.”

Eagle County Sheriff's Department gets a little bit of everything, including wildland fires, search and rescues and injured hikers

“We have a pretty big diversity of topography,” Chief Kirkland said. “We have valley floors and we respond all the way up to 13,000 feet. We have the Flat Tops wilderness area, which is a big back country use area. And we'll have back country rescues there, wildland fires, search and rescues, injured hikers, a little bit of everything there.”

Plus, the town of Gypsum is also the bedroom community for Vail Resorts and the towns of Vail, Avon, and Beaver Creek, Chief Kirkland said. “This is where people live to work and support those services that exist in the tourism industry.”

“Being a small fire department, we have to rely heavily on the technology we do have, and we need those systems to work without a lot of user intervention,” Chief Kirkland said. “So, our computer systems, our internet service, our telephones, our cell phones, all of that needs to really work together.”

“We don't have anybody else that can make things talk to each other,” he added. “So, it just has to work as one big bundle,” he added. “And that's one of the things I love about FirstNet.”

Fighting Fire

The Grizzly Creek Fire, which burned over 32,000 acres in Colorado between August and December 2020, was the number one priority fire in the nation at that time because of its impact on infrastructure and the I-70 corridor, Chief Kirkland said.

“We had a lot of resources here from around the nation attempting to control that fire,” he said. “That brought a lot of need for bandwidth and intelligence and interoperability. And we were



Deputy Sheriff Kevin Kromer said a lot of people come to Eagle County for recreation, which can tax the commercial networks. The international ski resorts are a big draw. And the agency needs to be able to communicate with each other and other agencies.

successful having FirstNet to communicate with all of our teams.”

“While other systems were experiencing surges, we experienced no outages and no capacity problems,” he added. “We consider FirstNet to be a partnership in the sense that it's mission critical for us.”

Testing Band 14

The county had had an opportunity to test Band 14 – the spectrum set aside by the federal government for the first responder network – even before FirstNet launched.

In February 2015, when the Federation of International Skiing hosted the World Alpine Ski Championships in Vail and Beaver Creek, Colorado, the competition brought people from all over the world to the area.

“...Our agencies started moving towards FirstNet for the same reasons that we all look at: The reliability, the connectivity, the security that's there, the agreement that's in place that if there's a problem with the network, I have somebody I can call and I know they will respond.”

Deputy Sheriff
Kevin Kromer,
Eagle County Sheriff's
Department

And the county needed a communications platform everyone could use. So, they tested the Band Class 14 concept. They used the equipment and spectrum to do video surveillance and share intelligence and data during the event. They tied their local radio system into a push-to-talk app on their phones, which brought everyone together on one common platform, Fire Chief Kirkland said.

“That experience was a very good proof of concept,” he said. “And yeah, for me, it sold me on the technology and the opportunities there.

“Based on what we saw as the proof of concept during that championship, that convinced me to try out the system and to go with it. And for four years now, I've been very happy with it, and I've just had numerous success stories with it.”

After the test, Deputy Kromer said one of his big questions was, “Can we keep the equipment, keep this up and running locally?”

“Unfortunately, we were told, no,” he said. “This was a proof of concept. Eventually that turned into FirstNet, the first responder network. After having used it and having had the opportunity to see what was there, our agencies started moving towards FirstNet for the same reasons that we all look at: The reliability, the connectivity, the security that's there, the agreement that's in place that if there's a problem with the network, I have somebody I can call and I know they will respond.”

One Common Platform

Fire Chief Kirkland said he likes FirstNet because it serves as a common platform for his department – and to communicate with other agencies.

“I'm able to just have a single point of service that covers all our needs,” he said. “And that includes our mobile data terminals in our firetrucks that help us know where we're going; to being able to have phone conversations, to being able to have access to our radio system through our cell phones.

Gypsum Fire uses FirstNet Ready® cell phones, a satellite BGAN kit, a Sonim Rapid Deploy Kit (RDK) and a Vocality Interoperability kit, as well as hotspots, a Cradlepoint and a

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Chief Dwight Henninger,
Vail Police Department

Microsoft Surface Pro X that serves as a mobile data terminal on the fire engine.

“We rely heavily on our mapping because we cover 455 square miles. So, we rely heavily on not just city maps, but also back country maps and being able to facilitate back country rescues and respond to wildland fires.”

The sheriff’s department uses FirstNet on all work phones and in-car computers, Deputy Kromer said. Plus, several deputies have FirstNet on their own devices.

“Ultimately in my world, I think I should be able to go anywhere in the country and show up on scene and say, ‘This is my telephone number,’ And they can send me a text message that enables me to download whatever app they’re using regionally,” Deputy Kromer said. “And I’m up and running, I have communication, I can get emails from them.”

Joining the network

Chief Kirkland said he would encourage fellow fire chiefs to look at FirstNet as a solution and test it and make sure it works for them.

“I’m pretty confident that if they give it a good evaluation, that they’ll be happy with the product, and be able to use it to success,” he said.



Vail Police Chief Dwight Henninger said the rugged terrain creates a lot of issues for the agencies – especially because the community gets about 2 million visitors a year.

Chief Kromer agrees.

“My advice to agencies as they’re planning their future data needs: Today it works. It’s reliable. It’s only going to expand,” he said. “You’re missing out on an opportunity to take advantage of the technologies that are there, that make your ability to serve your citizens more effective and more efficient. So, you need to plan for this. You should be looking to get involved.”