



Future Tech: Wireless Technology for First Responders

For public safety professionals, new technology isn't just about getting the latest and greatest – it's about necessity. Technology can help you shave time off your responses and enhance situational awareness. With 5G on the horizon, advancements and innovation that enable across-the-board improvement are in the foreseeable future.

How will current technology be enhanced by network upgrades?

As networks move toward 5G, you'll be able to do things significantly faster. Virtually transfer field interviews, building blueprints and on-site video at near-real-time speeds. Network upgrades will also offer greater connectivity so sensors can deliver more accurate information about the positions of first responders, environmental conditions and more. Ultra-low latency will allow high-definition surveillance video to be transferred with little to no lag time. And mobile command centers will be able to transfer data with virtually no wait times.

What new technology is on the way?

Combined with the improvements that 5G will provide, there are a number of new technologies either on the way or already in existence that will offer even greater benefits to public safety.¹

- **Behavior analytics and facial recognition:** Crystal-clear video and images will be delivered in real time so movement and facial expressions can be used to identify subjects, track suspicious patterns or predict actions.
- **Artificial intelligence (AI):** With the ability to process and deliver data faster, AI applications will give firefighters the ability to predict how a fire will spread, and help police analyze verbal statements for truthfulness.

- **Virtual reality:** Training applications will more accurately depict real-life situations in the field. Reduced latency will allow more immediate feedback.
- **Telemedicine:** Super-ambulances can transfer high-definition imaging and advanced diagnostic data instantly from any location.²
- **Augmented reality:** By overlaying existing building blueprints, new fire helmets can outline the environment for firefighters so they can see through smoke and darkness.
- **Smart city applications:** Real-time video surveillance and sensors placed on street lamps can notify police of gunshots, or react to pedestrian activity by brightening lights.
- **Emergency 911 support:** Enhanced video and faster, low-latency data transfer could allow text and video messaging that gives 911 operators greater insight into developing situations.

How to put it to work for your team

Not all carriers are equal. U.S. Cellular's 5G uses a spectrum that isn't blocked by walls or barriers the way other carriers' 5G can be, so you can stay connected in the places your responses take you, with speeds up to six times faster than you're used to. We also provide local Business Solutions Experts and access to 24/7 support that can help you navigate new solutions and 5G network capabilities.

Ready to talk about solutions that can help you respond more safely and efficiently today, and a network that can keep your first responders future ready? Call **1-866-616-5587** or visit [uscellular.com/business/contact](https://www.uscellular.com/business/contact) to learn more.

Reference:

1. Reichert, Corinne. "How 5G can save lives by aiding first responders." CNET, 2019. <https://www.cnet.com/news/how-5g-can-save-lives-by-aiding-first-responders/>
2. "5G - Part 2: Why 5G Will Become Essential for Emergency Services." Lanner, 2018. <https://www.lanner-america.com/blog/5g-part-2-5g-will-become-essential-emergency-services/>