

FirstNet's Innovation and Test Lab

State-of-the-art testing and innovation for public-safety-grade results



In disasters and emergencies, first responders need communication tools that are tested and proven to work – consistently, securely, reliably and smoothly. That's where FirstNet's new Innovation and Test Lab comes in.

Located at FirstNet's technical headquarters in Boulder, Colorado, the FirstNet Lab is a state-of-the-art laboratory in which the First Responder Network Authority (FirstNet) and its future partner will test public safety functionality and features unique to FirstNet's mission-critical broadband network, including quality of service; priority; pre-emption; and other future mission-critical services and applications.

A public safety-grade lab

The FirstNet Lab will offer:

- **Technology validation.** In the Lab's plug-and-play environment, the FirstNet partnership will be able to see how emerging technologies, devices and apps behave in a public safety broadband environment, ensuring anything that runs on the FirstNet Network is truly "public-safety-grade" and ready for first responders' use. The Lab will also be used to model and troubleshoot issues that may occur in the field.
- **Automated testing.** Where most telecommunications labs manually patch in different cell sites or devices for testing, the FirstNet lab has a radio frequency (RF) switch matrix and programmable attenuators so test engineers can remotely set up and execute test cases – automation that enables them to work efficiently and test at scale.

About the FirstNet Network

The Nationwide Public Safety Broadband Network (the FirstNet Network) will be a force-multiplier for first responders – giving the public safety community the 21st-century communication tools it needs to save lives and keep communities and first responders safe. To do that, FirstNet will work with a commercial technology partner to deploy a reliable, hardened, secure broadband network dedicated to public safety. With the FirstNet Network, for the first time, public-safety communications will be based on commercial standards, realize the benefits of consumer-driven economies of scale and see rapid evolution of advanced communication capabilities.



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- **Innovation.** The FirstNet lab will be continuously engaged in setting up, configuring, testing and evaluating a variety of emerging network technology, devices and apps to find new solutions that help public safety protect and secure communities across the nation.
- **Speed to solutions.** With a cooperative test environment in place, the FirstNet partnership will reduce the time it takes to test and deploy vital public safety features across the FirstNet Network – so innovative, effective communication tools are in the hands of first responders as soon as possible.



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- **Collaboration and knowledge sharing.** In addition to the collaboration within the FirstNet partnership, the FirstNet lab will foster collaboration and share knowledge with the Public Safety Communications Research (PSCR) Lab, also located in Boulder. Together, the two labs will build on each other's expertise and capabilities to deliver better, more innovative results for the public safety community they serve.
- **Learning and training opportunities.** The Lab will be the foundation for a future FirstNet Training/Experience Center for hands-on training, demonstration and user evaluation of future FirstNet Network technologies and applications.



Built to the highest standards

The FirstNet lab is a premier telecommunications technology innovation and test lab, built with the Telecommunications Industry Association (TIA) standards in mind. It has all the electrical power and network connectivity needed for FirstNet's future technology partner to stage equipment and start test execution as soon as possible. The Lab setup includes battery backup and a generator to maintain power for continuity of testing.

Learn more about the Lab

FirstNet's Innovation and Test Lab will enable next-generation communications technologies to be put in the hands of the nation's first responders quickly – at the level of quality and reliability they deserve. To learn more about the Lab, go to www.firstnet.com, email us at info@firstnet.gov or call us at 571-665-6100.



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