Coalition for Emergency Response and Critical Infrastructure

FREQUENTLY ASKED QUESTIONS ABOUT THE 4.9 GHz BAND

What is the 4.9 GHz Band?

The 4.9 GHz band is band of spectrum licensed by the Federal Communications Commission (FCC) to state and local government entities and nongovernmental organizations that support communications essential to protecting the safety of life, health, or property.

How and where does the 4.9 GHz Band support public-safety?

The 4.9 GHz is used by multiple public-safety entities across the country, in a wide range of communities, including major metropolitan areas and more rural locations.

In New York, for example, there are a total of 221 active licenses in the band, including 6 statewide area licenses, 43 countywide area licenses, and 174 other licenses. New York entities currently operating in the 4.9 GHz band or with plans to do so in the near future include the Metropolitan Transportation Authority (MTA or New York City Transit (NYCT)), New York State Department of Transportation (NYSDOT), New York City Police Department (NYPD), and New York City Fire Department (FDNY).

In California, there are a total of 273 active licenses in the band, including 4 statewide area licenses, 76 countywide area licenses, and 195 other licenses. Users in California include the California Office of Emergency Services (OES), the California Department of Transportation (Caltrans), and San Francisco Bay Area Rapid Transit (BART).

What are some of the specific uses for the 4.9 GHz Band?

NEW YORK

MTA currently uses the 4.9 GHz band both below and above the ground. It enables the subway system's emergency call box system allowing passengers to call for assistance in an emergency. It also supports cameras on NYCT buses.

NYSDOT uses 4.9 GHz to backhaul traffic management video cameras.

NYPD uses 4.9 GHz to support specialized video link applications supporting bomb squad robots and counter terrorism applications.

FDNY uses the 4.9 GHz band to support wireless video and data communications at the scene of major fires enabling Incident Commanders to more readily and efficiently conduct fire operations.

California

Caltrans uses the 4.9 GHz band as an integral part of its Intelligent Transportation Systems (ITS) and Connected/Autonomous Vehicle (CV/AV) applications to manage highway traffic congestion and incidents across 15,000 miles of highways in the most effective and efficient manner possible. This system includes traffic cameras, ramp meters, changeable message signs and highway advisory radios.

BART, which operates 50 stations, including 19 surface stations, 15 elevated and 16 subway stations in its 131.4 mile electrically powered San Francisco Bay Area public transit system, operates its own public safety communications and video camera system that transmits video data wirelessly via the 4.9 GHz frequencies. This system protects passengers, assesses real time threats and records incidents that may occur in critical areas of operation. It is designed to use licensed 4.9 GHz frequencies in both fixed and mobile applications.

Cal OES is responsible for providing public safety communications to California first responders and holds several licenses on the 4.9 GHz band. Cal OES is developing a statewide 4.9 GHz deployment plan to support a private 5G solution that will augment Land Mobile Radio capabilities in the state. It is also purchasing 4.9 GHz, private 5G solutions that can be used to support wildfire and other disaster response in California. These deployments can be scaled to a statewide solution should the 4.9 GHz spectrum remain dedicated to public safety.

If the 4.9 GHz band is integrated into the AT&T-FirstNet network, as is being proposed to the FCC, how would it affect state and local public safety systems in states like New York and California?

Pushing all public-safety licensees off of 4.9 GHz and on to AT&T's FirstNet network, would severely disrupt existing public-safety networks across the country. It would also undermine local decision making when it comes to determining the best options for local public-safety communications services.

MTA observes that "[i]ncorporation of the 4.9 GHz band into the [nationwide public safety broadband network (AT&T's FirstNet network)] would not accommodate the operation of truly localized operations intended to promote public safety..."

Clearing all current local users out of the 4.9 GHz band, as is being proposed, would eviscerate the 4.9 GHz band as a home for locally controlled public-safety applications.

As evidenced by the examples above, many public-safety entities have made significant investments in the 4.9 GHz band. Clearing them off it would be tantamount to wasting those precious public-safety resources. In fact, those affected public-safety entities might even incur additional costs if relocating to a new band is necessary.

How can the 4.9 GHz be protected?

The FCC must take steps to ensure state and local public-safety agencies remain the primary license holders and users of public safety networks. It should also limit non-public-safety uses of the 4.9 Ghz band to non-interfering uses by critical infrastructure entities such as utilities, energy, and transportation agencies.

The voice of incumbent public-safety licensees within the 4.9 GHz must be protected so they can approve all spectrum leases that could impact their licenses and weigh potential changes to the band. Above all, coordination and leasing rules for public-safety broadband should align with the FCC's broader goal of preserving and protecting local control of public-safety operations in the band.