



CALIFORNIA 4.9 USAGE CASE STUDIES

The 4.9 GHz band is a 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, and property. 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 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 District (BART).

San Francisco Bay Area Rapid Transit District (BART): BART operates 50 stations, including 19 surface, 15 elevated and 16 subway stations in its 131.4 mile electrically-powered transit system. BART's advanced communication-based train control system (CBTC) is designed to use licensed 4.9 GHz frequencies in both fixed and mobile applications throughout its multiple county service area. The BART Police Department also operates public safety communications and a video camera system that transmits video data wirelessly via the 4.9 GHz frequencies.

California Office of Emergency Services (Cal OES): 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 support Land Mobile Radio capabilities. And Cal OES "is 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." (2023 comments, pp. 1-2, 4).

California Department of Transportation (Caltrans): The 4.9 GHz band is an integral part of Caltrans' Intelligent Transportation Systems (ITS) and Connected/Autonomous Vehicle (CV/AV) applications. "ITS allows Caltrans to manage highway traffic congestion and incidents in the most effective and efficient manner [and] includes traffic cameras, ramp meters, changeable message signs and highway advisory radios." (Nov. 2021 comments, p. 4).

A January 2023 Federal Communications Commission (FCC) order ensured that state and local public-safety agencies remain the primary license holders of the 4.9 band. However, a group known as the Public Safety Spectrum Alliance (PSSA) is asking the FCC to migrate the 4.9 band to FirstNet, which is operated by a single network provider, AT&T. Moving the 4.9 band to FirstNet as the PSSA suggests would effectively end local control of the band and undermine local uses like those in California.

BART has emphasized to the FCC the importance of maintaining local control of the band. In recent comments to the FCC, BART noted that a pending proposal for AT&T-FirstNet in the 4.9 GHz band would result in "domination of the public safety spectrum [that] would severely undercut local and diverse uses of the band... Public safety spectrum needs to be publicly regulated by the FCC, not 'privatized' through ceding authority and control to a nationwide licensee." (2023 reply comments, pp. 2-3) BART also has advocated that all non-public safety services must not produce harmful interference, should be strictly secondary, and must be fully preemptible by public safety operations.

The California public-safety entities' uses of the 4.9 spectrum for public safety services are prime examples of why local public-safety entities should retain primary use of the spectrum and are best positioned to determine what works for their public-safety communications needs.