



CALIFORNIA 4.9 USAGE CASE STUDY

San Francisco Bay Area Rapid Transit District (BART)

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).

Among the most innovative users of the 4.9 band is 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 rapid transit system. BART has its own police force, which relies on critical 4.9 spectrum to maintain operations. The BART Police Department deploys sworn officers, unarmed Crisis Intervention Specialists and Transit Ambassadors to boost rider safety.

The 4.9 GHz band is a critical resource for BART as it works to enhance safety for users of public transit in the Bay Area. 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. This system protects passengers, assesses real time threats, and records incidents that may occur in critical areas of operation.

The FCC is considering potential changes to the band and recently decided to retain local public safety use of the band while allowing other uses that can operate on a secondary basis. However, a pending proposal from the Public Safety Spectrum Alliance (PSSA) seeks FCC authority to grant AT&T-FirstNet a nationwide license to the 4.9 GHz band. If the FCC grants the proposal and FirstNet's operations are allowed to interfere with existing and planned uses by the public safety community, such action would undermine use of the band for local public safety services, including those provided in California by BART and other public safety entities.

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 be fully preemptible by public safety operations.

BART's 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 best for their public-safety communications needs.