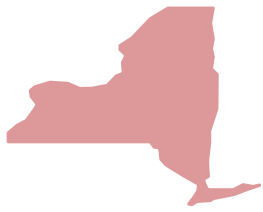




4.9 GHZ USE CASES

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. Public-safety needs vary on a jurisdiction-by-jurisdiction basis, and locally controlled public-safety systems must therefore be tailor-made to best fit the needs of each jurisdiction.

Examples of 4.9 Include:



NEW YORK: The Metropolitan Transportation Authority (MTA) currently uses the 4.9 GHz band in New York for public-safety purposes in its subway and bus systems.¹ In addition, to ensure the safe operation of its subway system (i.e., to prevent collision and derailment caused by overspeed or improper switch operation), MTA uses a CBTC system, and after an exhaustive internal technical review and selection process, MTA determined that the 4.9 GHz band is the only viable solution for its CBTC program.²

The New York State Division of Homeland Security and Emergency Services (DHSES) uses both fixed and deployable links in the 4.9 GHz band for voice and data backhaul. Deployable links are used to support public-safety at New York State events, such as the New York State Fair and the Baseball Hall of Fame Induction at Cooperstown.³



CALIFORNIA: In California, Caltrans District 2 uses 4.9 for backhaul and last mile connections for its Intelligent Transportation System. Prior to using 4.9, this system experienced considerable interference. The California Department of Transportation (Caltrans) is the owner and operator of California's approximately 15,000-mile Highway System. Caltrans uses the 4.9 GHz band for autonomous/connected vehicle communications. Caltrans also uses the 4.9 GHz band for backhaul connectivity that enables ITS to manage highway traffic congestion and incidents and for traffic cameras, ramp meters, changeable message signs and highway advisory radios.⁴

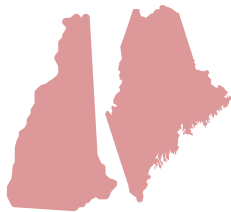
[1] Letter from Rebecca Kagan Sternhell, Deputy Dir., NYC Office of Federal Affs., representing the City of New York, to Marlene Dortch, Sec'y, FCC, WP Docket No. 07-100, at 1 (June 18, 2019); Comments of the City of New York, WP Docket No. 07-100, at 2 (July 5, 2018) ("2018 NYC Comments").

[2] Reply Comments of the Metropolitan Transportation Authority, WP Docket No. 07-100, at 2-3 (May 15, 2023); see also Letter from Greg Kunkle, Keller & Heckman LLP, counsel to Metropolitan Transportation Authority, to Marlene H. Dortch, Sec'y, FCC, WP Docket No. 07-100 at 1 (June 29, 2023).

[3] Comments of New York State Division of Homeland Security and Emergency Services, WP Docket No. 07-100, at 1-2 (Jan. 14, 2021).

[4] Comments of the State of California Department of Transportation, WP Docket No. 07-100, at 4 (Nov. 23, 2021).

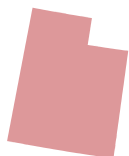
The San Francisco Bay Area Rapid Transit District (BART) provides public transit services in five counties within the San Francisco Bay Area and uses the 4.9 GHz band for public-safety purposes. BART is currently in the process of using the 4.9 GHz band to implement both fixed and mobile advanced communications-based train control services (CBTC) throughout its existing geographic license area.⁵



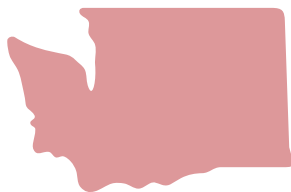
NEW HAMPSHIRE AND MAINE: New Hampshire and Maine are nearing completion of an intelligent transportation system (ITS) utilizing 4.9 GHz spectrum for a point-to-multipoint system within both states and across their common border at Interstate 95. The system is used, in part, to monitor and control ITS dynamic message signs, warning beacons, and lane use guidance signs for part-time use of the highway shoulder.⁶



TENNESSEE: The Tennessee Department of Transportation uses the 4.9 GHz band for a link that connects the Nashville TMC Motorola dispatch consoles to the Tennessee Advanced Communications Network, the State's trunked radio network.⁷



UTAH: In Utah, Salt Lake City uses the 4.9 GHz band for Salt Lake International Airport and city-wide public safety communications.



WASHINGTON: There are 268 4.9 GHz licenses in the State of Washington. This includes four statewide licenses and two hundred sixty-four (264) licenses that cover all, or portions of, thirty-two (32) counties. The largest license holders in the state are the State of Washington Department of Transportation (145 license) and the City of Seattle (59 licenses). The 4.9 GHz band helps WSDOT power and monitor all cameras, variable message signs, variable speed signs and roadway equipment on Stevens, Snoqualmie, and White passes, power and monitor all cameras and signs on Wauconda pass, power voice and data to the Keller Ferry, and power hundreds of Intelligent Transportation Systems devices in rural parts of the state.

These are just a small sample of the mission critical, locally implemented, and locally controlled public-safety systems and networks operating in the 4.9 GHz band in jurisdictions throughout the United States.

[5] Comments of the San Francisco Bay Area Rapid Transit District, WP Docket No. 07-100, at 1-2 (Mar. 30, 2023).

[6] See Letter from Julian Geham, Gehman Law PLLC, counsel to AASHTO, to Marlene H. Dortch, Sec'y, FCC, WP Docket No. 07-100, at 2 (Jan. 23, 2024) ("AASHTO Ex Parte").

[7] See AASHTO Ex Parte at 2.