



Bay Area Wireless Enhanced Broadband

BayRICS

The Bay Area Regional Interoperable Communications System (BayRICS) is comprised of four major components:

- BayWEB: 4G LTE Broadband
- BayComm: P25 Voice Communications
- BayLoop: Digital Microwave Backhaul
- BayShare: Regional Information Sharing

BayWEB is a sub-system of BayRICS and will leverage a majority of existing assets, including the BayLoop Microwave Network, a dual OC3 microwave that connects all of the Bay Area Counties and regional microwave systems. BayRICS is focused on mission critical voice and data communications as well as interagency information sharing.

Collaboration

The BayWEB system is a cutting edge, private broadband wireless data network, prioritized for public safety and first responders. It will be a collaboration of 10 counties and over 100 cities. Initial pilot implementations are focused in the areas of San Francisco, Oakland, Contra Costa County, Sunnyvale, and the City of Santa Clara. BayWEB will provide a model for similar Broadband roll outs throughout the nation.

Benefits

The BayWEB network will be available and prioritized for first responders. It will offer more efficient information to first responders in emergencies. It will provide officers invaluable strategic and tactical data and fire fighters with visual information and structure plans, all on demand and prioritized for first responders. BayWEB will create greater

efficiencies in the field, ultimately saving lives in the process.

Technology

BayWEB will utilize dedicated 700MHz spectrum and 4G LTE broadband technology, which is the chosen National Public Safety broadband standard for next generation broadband. The system will leverage existing public safety infrastructure investments, such as towers, shelters, microwave backhaul and “shovel ready” sites. The Bay Area is in the process of procuring a waiver to utilize the frequencies for deployment. 190+ broadband sites will cover a majority of the Bay Area. The core network will have the capacity to support additional regions. The operation and management model deployed will maintain, sustain and exponentially expand and continually improve BayWEB, a model that can be replicated throughout the nation for other future urban and rural build outs.

- **4G - 4th Generation Wireless Broadband Technology**
- **LTE – Long Term Evolution**
- **Licensed 700MHz Spectrum***
- **193 sites covering a majority of the Bay Area**
- **Core Network with capacity capable of supporting additional regions**
- **Dedicated broadband data network for first responders**
- **High data rate capable of supporting future public safety applications**
- **Saves lives by providing timely information to first responders when they need it most**

**subject to PSST term lease agreement and FCC waiver conditions*

Contact:
Laura Phillips
Bay Area UASI
415.705.8516
laura.phillips@sfgov.org

BAYRICS



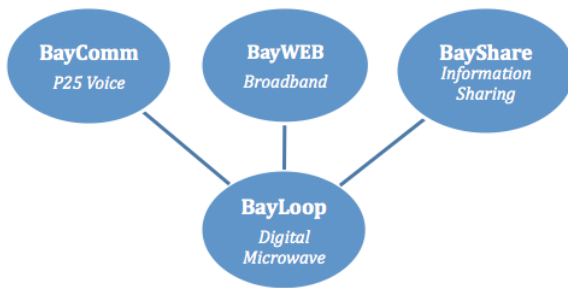
Bay Area Regional Interoperable Communications System

BayRICS

The BayRICS vision was established by the 10 Bay Area Counties and three core cities, of San Francisco, Oakland, and San Jose in 2006 through the creation of a strategic plan with the goal of providing voice and data interoperability throughout the Bay Area region. BayRICS will provide first responders with mission critical interoperable communications, enabling them to proactively respond and recover more efficiently and effectively to major intentional or natural events.

The Bay Area Regional Interoperable Communications System (BayRICS) is comprised of four major components:

- BayLoop: Digital Microwave Backhaul
- BayComm: P25 Voice Communications
- BayShare: Regional Information Sharing
- BayWEB: 4G LTE Broadband



BayWEB

Bay Area Wireless Enhanced Broadband (BayWEB) is the broadband component of BayRICS. There are two main system components to BayWEB:

- Public Safety 700 MHz 4G LTE
- Public Internet Access 5 GHz WiB Point to Multipoint

The Public Safety sub-system will allow first responders to use incredible applications that are not currently possible on today's available public safety networks. The standards based system will interoperate with other LTE public safety systems such as the planned National Broadband Network and can expand into regions throughout California and the West Coast. The Bay Area is working closely with the FCC, Emergency Responders Interoperability Center (ERIC), NIST, and other groups to ensure interoperability with other systems.

The Public Access sub-system utilizing the unlicensed 5.2, 5.4 & 5.7 GHz Spectrum, is a robust wireless broadband middle mile network for public consumption that can span distances ranging from two to 40 miles in a multipoint configuration.

BayLoop

BayLoop is nearly 240 miles of Digital Microwave backhaul which circles the Bay Area Region providing connectivity to the 10 Bay Area Counties and approximately 100 Bay Area Cities. BayLoop's design includes hot switchover radios at each site as well as loop protection. The dual OC3 design provides sufficient capacity to support all of the BayRICS components. BayLoop will allow the sharing of information, data & voice, and the interoperability connectivity across the Bay Area not only during events requiring mutual aid but also the operability of day to day public safety operation.



BayComm

The BayComm "system of systems" voice initiative seeks to alleviate interoperability issues by providing Bay Area first responders with a common frequency band and a common open digital standard in P25. P25 is supported and recognized nationwide as the voice standard for public safety by APCO and the Federal Government through the Office of Emergency Communications (OEC), Department of Homeland Security (DHS), FEMA, National Institute of Standards and Technology (NIST), and general Federal grant requirements.

BayShare

BayShare, the Regional Information Sharing sub-system in BayRICS utilizes common applications for vital information exchange between agencies, jurisdictions, and our fusion center partners. This initiative is coordinated and funded by the Bay Area UASI region grants. The applications share critical data such as criminal records, mug shots, vehicle and related data for real time and investigative law enforcement throughout the Bay Area and expansion throughout California.

Contact:

Laura Phillips
Bay Area UASI
415.705.8516

laura.phillips@sfgov.org