



**SAN FRANCISCO BAY AREA**

**Regional  
Interoperable  
Communications  
System**

**BayRICS**



“By connecting our first responders, we are ensuring that we will be better prepared for future disasters—natural or man-made.”

– San Francisco Mayor  
Gavin Newsom

“The Governor’s Office of Homeland Security is pleased to see the leadership exhibited by the San Francisco Bay Area in its initiative to solve the critical issue of emergency communications interoperability. I fully support the Bay Area’s efforts towards a regional solution and look forward to their continued collaboration with the State of California.”

– Matt Bettenhausen,  
Director, California’s Office of  
Homeland Security

## Mission Critical Interoperable Communications

Ensures first responders can talk to who they need to, wherever they are, when they need it.

The need is apparent, the collaboration is unprecedented. The ten Bay Area Counties, with the leadership of the major cities of San Francisco, Oakland and San Jose, are creating an interoperable communications network that will allow first responders throughout the Bay Area to communicate day-to-day and in case of a disaster. The plan will establish a standards-based integrated voice and data network for public safety and all supporting mission-critical personnel.

The radio they use every day will become the radio they use everywhere.



Participating Public Safety and Public Service Professionals include:

- ✓ Sheriff
- ✓ Fire
- ✓ Emergency Services
- ✓ Police
- ✓ Emergency Medical Services
- ✓ Public Health
- ✓ Transit Agencies

# The Communications Challenge

How we respond and recover from critical events will depend on our ability to communicate on our public safety radio networks. Our challenges include:

- Aged and outdated equipment
- Proprietary and incompatible radio technologies
- Fragmented and sparse radio frequencies
- Lack of funding and regional collaboration



## The Vision

The BayRICS Vision is the ability for any public safety radio in the region to communicate with any other public safety radio regardless of location, radio system, or frequency band and to seamlessly roam throughout all 10 Counties in the Bay Area.

“Disasters don’t recognize city or county borders... by working together as a region, our firefighters, police officers and medical personnel can respond more quickly in times of crisis.”

—San Jose Mayor  
Chuck Reed

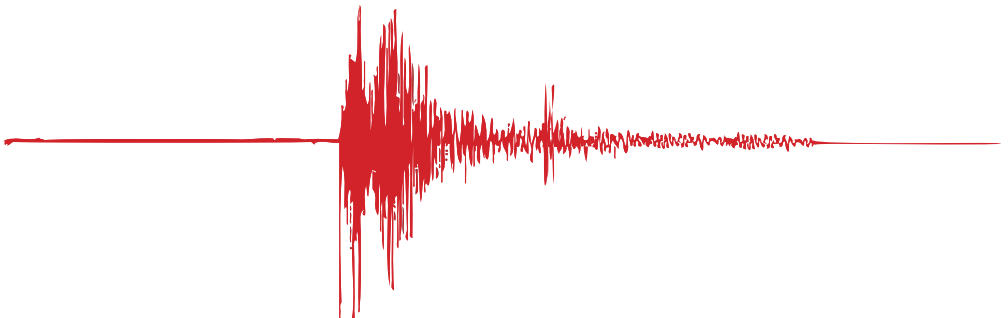
## Area and population served:

- Over 100 cities and townships, including the 3 major cities of San Francisco, Oakland, and San Jose
- 10 counties: Alameda, Contra Costa, Marin, Napa, Santa Clara, Santa Cruz, San Francisco, San Mateo, Solano, and Sonoma
- 7.2 Million Residents, 15.8 Million Annual Visitors
- 7,200 Square Miles
- 6th most populous metropolitan region in the United States



## The Vulnerability

The Department of Homeland Security has classified the San Francisco Bay Area as a top threat Urban Area, due to our world-renowned landmarks and assets. The U.S. Geological Survey estimates that the Bay Area also faces a 63% chance of a devastating earthquake on the Hayward and San Andreas faults in the next 30 years. Our surrounding wildland areas are vulnerable to unexpected, devastating landslides and firestorms, such as the Oakland Hills Fire of 1991. These disasters will impact the entire region, and will require cooperation and communication among multiple public safety agencies across the Bay Area.





## MAJOR THREATS AND TARGETS

- 8 major fault lines traverse the most populous regions of the Bay Area
- 8 major bridges, including the Golden Gate Bridge and the San Francisco–Oakland Bay Bridge, critically connecting the region
- 3 international airports, San Francisco, Oakland and San Jose
- Public transportation systems, including Muni and BART, the 7th and 14th largest transit agencies in the country
- Ports of San Francisco, Richmond and Oakland—the 4th busiest port in America
- Major research and educational facilities including 3 national laboratories: Lawrence Livermore, Berkeley and Sandia
- Silicon Valley, the technology hub of the United States
- Hetch Hetchy water system, serving 2.4 million residential, commercial, and industrial customers in the Bay Area
- 70 major chemical and petro-chemical facilities that pump billions of dollars into the economy annually

“This initiative provides our first responders with the ability to communicate with other cities and counties across the Bay Area, further improving upon the way our emergency officials can respond.”

—Oakland Mayor  
Ron Dellums

“ We have a once in a lifetime opportunity to resolve this critical issue with the release of the 700 MHz spectrum and funding for the first responder interoperability. ”

—Laura Phillips,  
General Manager Bay Area  
Super UASI

“ With 35 member agencies in Alameda and Contra Costa counties, the East Bay Regional Communications System Authority is demonstrating that local governmental agencies can work together to develop an interoperable communications system. The BayRICS collaboration will ensure that interoperability is a reality for the entire region, our collective lives depend on it. ”

—William Shinn, Mayor, City of  
Concord; Board Chair, East Bay  
Regional Communications System  
Authority

## The Plan

### GOVERNANCE

BayRICS is a collaborative planning effort that includes all 10 Bay Area counties. This program will be governed under the Bay Area Super Urban Areas Security Initiative (SUASI). Representatives from all Bay Area cities and counties spanning multiple agencies, and cross-functional departments, comprise the management team, advisory committee, and approval authority.

### TECHNOLOGY

The BayRICS network will be a state-of-the-art communications system. It will utilize existing resources and precious spectrum, while incorporating the latest in standards-based technology and FCC-issued spectrum, dedicated for public safety use. Highlights include:

- Dedicated Microwave Backbone Loop
- Standards-Based Project 25 Infrastructure
- Mission Critical Voice and Data Communications
- 700/800 MHz Radio Frequencies and VHF Frequency Overlay for the rural areas
- High Availability and Redundancy, dedicated for public safety usage

### PROGRESS, TIMELINE, AND FUNDING

The plan builds upon the capabilities of the Regional Communications Systems (RCS):

- East Bay RCS (Alameda and Contra Costa Counties)
- West Bay RCS (San Francisco, San Mateo, and Marin Counties)
- Silicon Valley RCS (Santa Clara County)

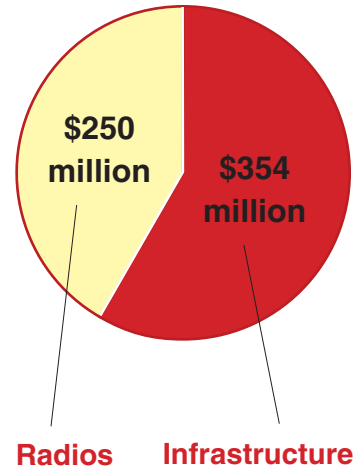
The initiative will take a phased approach for deployment, focusing on the urban areas first, with the goal to connect the entire region by 2012.

The projected cost is \$604 million for both first responder radios and supporting infrastructure.

The region has invested \$106 million to date, including funds available through the Department of Commerce, Public Safety Interoperable Communications (PSIC) Grants, Department of Homeland Security (UASI) Grants and local matching funds.

Several counties are in the implementation stages of BayRICS, and have purchased and installed equipment. The remaining counties are in the planning stages, and are developing detailed network designs and cost estimates.

### Projected Cost \$604 million



### BayRICS Project Status

- Implementation Stages
- Planning Stages

## **CONTACT**

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