

The San Francisco Bay Area: The future of nationwide interoperable communications?

Posted At : March 25, 2011 10:58 AM | Posted By : Kristin Howe

Related Categories: Homeland Security, Justice/Public Safety & Homeland Security, Grants, Forecasts & Spending, State & Local, Contract Opportunities, Procurement

Harris County, Texas **awarded a contract** to Motorola Solutions, Inc. (MSI) to build a 700 MHz LTE (long-term evolution) network for public safety personnel. This contract will serve to bring the county in line with **Texas' Radio Communications Interoperability Plan**, the goal of which is to link first responders' and other public safety workers' radio systems across the state. Achieving this would mean that all fire fighters, police officers, deputy sheriffs, state troopers and emergency medical responders would have instantaneous radio communication with each other without being required to exchange or acquire new equipment.

Currently, if a joint emergency response is required from personnel in different jurisdictions or multiple agencies during a large-scale event like the Olympics, Harris County and many others throughout the country must coordinate beforehand and exchange radios and other equipment since their own may not work in the county holding the event. Oftentimes, emergencies that require responders from multiple towns hinder rescue efforts because the different jurisdictions do not have a shared communication plan. Instead, they must determine a way to communicate on the scene when time and effort could be used to save lives. This project will eliminate the need for such on-the-spot decision-making and allow for flexibility and coordination when responding to emergencies.

In 1996, the Federal Communications Commission (**FCC**) began creating a series of rules and orders to establish radio channels specifically designated for public safety officials. The lack of interoperability came into sharp focus following the events of September 11, 2001, where firefighters and police were forced to swap radios in an attempt to coordinate their life-saving efforts. In 2007, the FCC developed a **regulatory framework** for use of the 700 MHz band, which allowed a certain portion of band to be used for commercial purposes and reserved the remainder for the public safety community. Due to these restrictions, each government entity seeking to develop such a network must request and be granted a waiver to use the 700 MHz band. The Harris County system came under fire by the FCC as MSI failed to ensure specific adherence to the FCC interoperability requirements. Motorola issued a **Notice of Ex Parte Presentation** to the FCC, which affirms its ability to adhere to the requirements established in **PS Docket 06-229** and ensures the portion of the network will be used exclusively for public safety purposes. Motorola also affirmed it has included language to specify this in all of its solicitation responses and will continue to do so in the future. After submission of the notice, Harris County was allowed to proceed with development of the network.

This move toward interoperability exists around the nation, and the FCC hopes all first responders nationwide will eventually be able to communicate and move from one community to the next on the same system. The project in Harris County serves as a microcosm of a similar project currently underway in the **San Francisco Bay Area**. This project, like the one in Harris County, aims to develop an LTE network that allows all public safety officials in the greater San Francisco Bay Area, including those in Alameda County, Contra Costa County, and the cities of Santa Clara and Sunnyvale, to communicate during emergencies. Upon completion, this project will be the nation's first 700 MHz public safety LTE network and encompass more than 7,000 square miles, 10 counties and 7 million people. It is being built to scale to eventually allow the rest of California to use it as well. Motorola and the Bay Area hope this network will serve as a model for other LTE networks, connecting smaller networks like that in Harris County to a wider nationwide network that will be available for use by all first responders.

The first phase of the Bay Area project, known as Project Cornerstone, is being developed with an LTE core with 330 public safety LTE user modems, and will cover 10 sites. Although it recently ran into funding problems, the larger Bay Area network will ultimately include 193 sites and allow more user access. Texas and the Bay Area are not the only communities seeking to develop 700 MHz LTE networks; similar efforts are underway in **New Jersey, Mississippi, Illinois, Berks County, Pennsylvania, Camden County, Georgia** and other areas throughout the nation.

GovWin's Take: The network in San Francisco is already being used to develop new applications such as biometric applications that allow police officers to take and check fingerprints during routine traffic stops and other daily activities. By developing a network specifically for use by the public safety community, messages will not have to compete with commercial traffic to reach their end destination. It will allow agencies to

prioritize certain communications and allow users from different counties onto the network at the agencies' or counties' discretion. This network has the potential to revolutionize the way first responders approach not only an emergency, but their day-to-day activities. It will allow public safety officials to access life-saving information and allow for a more efficient response when literally every second counts. While the potential of this network is practically unlimited, it is still considered an emerging technology; therefore, many organizations are hesitant to move forward. Even the San Francisco network has run into trouble receiving approval from one of the governments that was set to participate. The number of governments and different organizations set to participate in each of these networks means that the approval process is extensive with numerous potential pitfalls. This coupled with the budget constraints many counties and governmental entities are experiencing means that the timeframe for these projects is extensive, and vendors should prepare for a long procurement process.