Opportunity the proposed system seeks to address The City of San Antonio, Bexar and Comal Counties represents a significantly diverse and integrated area. San Antonio is the most visited city in Texas and was ranked second this year by US News and World Report as the best family vacations in the US. The area also includes a strong military presence and is home to Fort Sam Houston, Lackland Air Force Base, Randolph Air Force Base, Brooks City-Base, Camp Bullis and Camp Stanley. In contrast to the military presence and attracting over 26 million visitors per year, the Area also serves as the largest corridor for illegal drug smuggling from Mexico. Because of this, the Area’s public safety groups are a significant force in drug interdiction and border protection, requiring communication with not only Federal agencies, but Mexican public safety agencies as well. The San Antonio metropolitan area also includes several Gulf Coast evacuation routes that require reliable and advanced technological solutions. As a result of this complex landscape and cross-jurisdictional support, the need for advanced technology for interoperability, situational awareness and varied public safety efforts is paramount. The Alamo MobileNet project seeks to address this need through the integration of networks that include existing narrow-band public safety networks, commercial 3GPP networks and a new LTE network that will establish a significant capability in the Southwestern Region of the United States that can be easily expanded to include additional regions and states. Alamo MobileNet will provide an integrated network that will enable the FCC’s vision for a nationwide interoperable public safety network, while leveraging public-private partnerships to achieve an immediate and cost-effective solution. With this grant funding, the Project will immediately demonstrate on a smaller and more manageable basis, the technical and operational undertaking that is required for this vision to succeed. The deployment of this network will coincide with the availability of various commercial LTE networks. The lessons learned from this project can be replicated and leveraged throughout the Nation. A general description of the proposed funded service areas (location, number of communities, etc.) This grant will enable the City of San Antonio, along with its project partners to provide LTE service to 105 Public Safety organizations across an area that encompasses 95% of the population of Bexar and Comal Counties. Coverage maps can be found in the Supplemental Information Upload 18.15. Number of households and businesses passed:N/A Number of community anchor institutions passed and/or involved with project (e.g., health care, education, libraries, etc.) organizations passed and/or involved with project: The network will include 22 PSAPs, the University of Texas San Antonio, Texas A&M, Alamo Community College, Bexar Metro Network 911 District, Texas Department of Public Safety and other municipalities in both counties. The affects will enhance the Counter Drug Interdiction operations by all law enforcement and assist in the control of our borders by providing instant information across multi-functional agencies. Proposed
services and applications for the proposed funded service areas and users. The anchor institutions will provide integrated public safety broadband applications such as video surveillance, computer-aided dispatch, and interoperability with existing narrow-band voice services. Geographical coverage will be augmented by commercial 3GPP carrier networks, thus expanding the coverage area and available services of the LTE network through an interoperability approach that is seamless to the end user. This approach provides the public safety end-user with the technology necessary to perform his job efficiently, without distracting the user with the normal headaches associated with technology usage. For single-purpose 700 MHz public safety networks, NTIA has concluded that the “needs of law enforcement and reasonable network management” exception effectively exempts 700 MHz public safety applicants from compliance with the nondiscrimination and interconnection obligations. With respect to such public safety networks, applicants, including public safety applicants, will have the ability to deploy secure private networks and prioritize traffic as they deem necessary. (Second NOFA at V.D.3.b.)

Type of broadband system that will be deployed (network type and technology standard). The Alamo MobileNet project will deploy an end-to-end IP-based LTE network with a distributed architecture to achieve the scalability and interoperability necessary to support many thousands of public safety users over a large regional geography. Qualifications of the Applicant that demonstrate the ability to implement and operate a broadband infrastructure, and/or be a sustainable broadband service provider. The City of San Antonio and its partners have a strong record of accomplishment of successfully deploying highly reliable private and commercial wireless networks that provide interoperability and advanced data services. Specifically, in 2008, San Antonio, led by Bart Mulcahy and the Information Technology Services Department (ITSD) team, initiated a project to establish remote communication with traffic signals using wireless mesh nodes with wireless bridging and fiber optical back-haul. The ITSD team designed this unique network and has successfully deployed this technology in the first two phases of this project. Currently the City’s network infrastructure is operational for 34 city facilities and 900 traffic signals. The construction of this network is on time and within the proposed budget. Existing municipal personnel and resources are being used to install the Citywide broadband network. Additional phases of the project include expanding services to the remaining 400 traffic signals and City facilities over the more than 400 square miles that make up the City of San Antonio while continuing to support public safety applications and free Public Internet Wi-Fi. In addition to this project, the ITSD team managed the deployment of an 800 MHz public safety radio system that includes 14 tower sites and over 8000 users. This same ITSD team, led by Bart Mulcahy, will be managing the BTOP project.

Overall infrastructure cost of the broadband system; With the leveraged use of the current infrastructure, San Antonio will deploy an interoperable LTE for $30,129,863. This LTE system can be deployed and operational within weeks of equipment arrival. Overall expected subscriber projections for the project; The Alamo MobileNet project will start with approximately 5700 public safety users comprised of 105 organizations. This deployed LTE will have capacity to accommodate over 16,000 subscribers with the proposed data rate. The service area includes coverage for 95% of the population of Bexar and Comal Counties. As the network expands into a regional network, the number of subscribers will increase significantly. Number of jobs estimated to be created or saved as a result of this project; This project will create up to 22 new direct service-providing jobs with San Antonio and its partners. This project will retain 11 jobs with the service footprint, thus providing the area with highly technical skills for future growth in the job market.