

Broadband USA Applications Database

Applicant Name: SkyTerra Public Safety Access LLC

Project Title: Public Safety Broadband Devices

Project Type: Sustainable Adoption

Executive Summary

The applicant is a for-profit limited liability company.

Problem Addressed: This project addresses the urgent need to improve broadband adoption by public safety agencies, a need not currently met by commercial providers.

The nationwide 700 MHz public safety broadband network, for which the FCC has allocated spectrum, has not yet been built, and even when it is built will not serve rural or sparsely settled areas for the foreseeable future. Moreover, even if a 700 MHz network were available today, it would still not be able to meet public safety's needs because there are no devices available that are capable of using the 700 MHz public safety band. This project accelerates public safety adoption of mobile broadband services by funding the development of broadband devices specifically targeted towards public safety and by incorporating the 700 MHz public safety broadband frequencies. These "dual mode" mobile broadband devices will access the 700 MHz public safety network when and where it is available, and mobile satellite data links when and where use of the terrestrial broadband service is unavailable. SkyTerra does not believe that any devices meeting both of these criteria exist today, nor are any currently contemplated.

The FCC has acknowledged the importance of dual mode 700 MHz/satellite devices by requiring that they be available after 700 MHz networks are deployed. While this requirement is important, it is not itself sufficient to ensure that the devices will be available within a reasonable timeframe. They will not be available for a number of years under current assumptions. Without devices, it is far less likely 700 MHz network deployments will be funded, thus further delaying broadband use by public safety. The proposed project, however, would ensure that capable devices are available to public safety agencies much sooner than would otherwise be possible - within the three year timeframe of the project - so they will be able to adopt mobile broadband much sooner. This proposal is the first effort to fund the need for dual mode devices, and the first effort to fund the need for 700 MHz public safety band devices.

SkyTerra's approach: Plans for commercial 700 MHz broadband networks are being developed today and manufacturers are developing 700 MHz broadband devices for commercial users. SkyTerra's innovative approach would leverage the large investment in commercial 700 MHz device development by investing a modest additional amount in parallel development and an initial production of dual-mode broadband devices optimized for public safety agencies. Public safety equipment differs substantially from commercial equipment, and thus its availability in the absence of this program could significantly lag the availability of network services, effectively providing public safety with "half of a solution" (a network, with delicate consumer access devices). The project will provide essential public safety access equipment, along with a long term, nationwide awareness and training program that SkyTerra will sustain after the grant period. A relatively tiny investment now can ensure that reliable, affordable dual mode devices are available to public safety agencies in the earliest phases of deployment of the 700 MHz public safety network.

Areas and populations to be targeted: The dual mode broadband devices would be designed for, intended for use by, and made available to public safety agencies and first responders nationwide, including state, tribal, local, regional and federal agencies. Because public safety users rely on satellite capability to reach unserved and underserved areas, this project will be particularly responsive to the needs of those agencies. We estimate that almost 50,000 public safety personnel would be candidates for these devices in areas where service is not feasible without dual mode devices, and more than 100,000 personnel would be candidates for these devices in areas where full-coverage terrestrial networks are not economic because of low population density. Agencies serving populated areas also rely on satellite links for service when terrestrial networks are damaged or destroyed by hurricanes, wildfires or other disasters.

Estimate of potential users: We estimate that more than 80% of the more than 60,000 public safety agencies nationwide would potentially benefit from the proposed dual mode broadband devices and that SkyTerra's program will stimulate or accelerate wireless broadband adoption by more than 15% of agencies.

Qualifications: SkyTerra has more than thirteen years of operational experience, and today offers a full range of voice and data mobile satellite services to over 200,000 units. Public safety users represent a significant portion of SkyTerra's customer base and include, among others, the Federal Emergency Management Agency, the Department of Justice, the Federal Bureau of Investigation, the Louisiana Governor's Office of Homeland Security and Emergency Preparedness, the California Governor's Office of Emergency Services, and numerous other local and state fire, police, and emergency response agencies. Members of SkyTerra's project team have managed the specification and development of

many mobile devices and have developed and deployed customized services for the unique requirements of public safety users.

Jobs: Based on projections by the Brattle Group, which SkyTerra commissioned, and on other available information, we estimate that the project will create or save at least 750 job years of employment in the project period.

Overall cost: SkyTerra proposes to make available two types of public-safety devices, one broadband data device and one voice-enabled data device, and to offer an extensive awareness and training program. Total budgeted cost of this equipment availability, awareness and training project is \$46,319,535.