

## **Broadband USA Applications Database**

**Applicant Name:** Race Communications, Inc

**Project Title:** Kern County - 5 Service Areas

**Project Type:** Last Mile Remote

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### **Executive Summary**

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Portions of Kern County are poorly served by communications service providers. This condition is unlikely to change as the area is largely rural and sparsely populated. The investor-owned companies that serve this region deploy their capital to major metropolitan areas first, where they serve larger markets and yield greater returns for their investors. The American Recovery and Reinvestment Act aims to fix this problem by allocating \$7.2 Billion dollars to deploy advanced communications services in such areas. Without the ARRA investment, the region is likely to never have satisfactory infrastructure and services. This application requests funds to deploy a fiber-to-the-premises network to serve the residences, businesses, and community institutions in five specific local markets that are unserved or underserved. The maps of the proposed service areas have been identified in the Broadband USA mapping tool and uploaded with this application. The proposed service areas are as follows: Boron, California, population 2025, households 1,103, estimated businesses 56, Designation: Unserved and Rural. California City, California, population 8,187, households 3,494, estimated businesses 177, Designation: Underserved and Rural. Mojave, California, population 3,283, households 1,571, estimated businesses 80, Designation: Underserved and Rural. Rosamond, California, population 14,514, households 5,678, estimated businesses 288, Designation: Underserved and Rural. Tehachapi / Arvin California, population 40,820, households 13,294, businesses 674, Designation: Underserved and Rural. Tehachapi / Arvin also include the communities of Stallion Springs, Bear Valley Springs, Alpine Forest, and Golden Hills. Based on the diverse nature of the proposed service area (460 square miles of service area will be addressed by this proposal), it is estimated that the number of community anchor institutions exceeds sixty. Using primary market research and supported by secondary market research from the California Broadband Task Force, we have estimated that the broadband availability reaches 43% of households and the adoption rate is 27% of all households in the proposed service area. The proposed network architecture is fiber-to-the-premises (FTTP) using a Passive Optical Network (PON) design. The network will support multiple service offerings. The plan calls for offering residents and businesses voice, video, and broadband services. The voice service will be a full-service offering with all calling and class features as well as statewide, national, and international calling plans. The voice offering will be an IP service. Video service will also be an IP-based service and will provide state-of-the-art technology for delivering a complete channel lineup of basic, premium, and interactive services. The broadband service will offer a range of services starting at \$15 per month for a 1 Mbps service and range upward to a top-end service of 100 Mbps for \$100 per month. Additional community-specific services are anticipated, but we will recruit local partners to provide those services. We have designed space in the Central Office to host the applications developed by local anchor institutions. In addition to being a

key driver in economic development and job creation for the region, the technology will be an enabler of many life changing applications for residents – smart-grid, remote-medical applications, and distance learning -- to name a few. This project is supported by many local community stakeholders in the education and first-responder community. Our goal is clear – make advanced communications available and affordable to everyone in the region who desires it. The approach to addressing the non-discrimination and interconnection obligations outlined in the application guide is a three part plan:

**Fiber Optic Policy:** Reserve a portion of the fibers on the backbone and the five local rings for public benefit purposes, at no cost. Any public-benefit organization that has the technical capability, and financial capacity to light the fibers, will be given access to exclusively use two dark fibers. The fibers must be used in a non-commercial application and cannot be re-sold. Additionally, we will commit to lease fiber optic capacity, at commercially reasonable rates, to any commercial service provider, including our direct competitors, that desires the capacity. Finally, the network will be built with sufficient fiber drop/add points that will accommodate convenient interconnection without having to build back to the Central Office to interconnect.

**Collocation Space:** In the design of the network, additional rack space is being made available to host applications and optical equipment for any organization that desires to have access to the network for lawful purposes. The space will be provided at commercially reasonable rates to cover the incremental cost of electricity, cooling, etc.

**OSI Compliant:** The network will be a complete end-to-end fiber optic network from the Internet source at One Wilshire in Los Angeles to the end-user premises. The network will be entirely standards-based and will be designed upon Open Systems Interconnection (OSI) standards. OSI is a design standard that ensures any vendor's equipment, developed using OSI standards, will interconnect seamlessly and operate compatibly with other OSI network elements. In addition to this three-part plan, Race certifies that it is committed to promote openness and access of the Internet; Race will not block consumer access to any legal content, nor will we prioritize any providers' content over others. The applicant for the funding is Race Communications, Inc., headquartered in South San Francisco. Race operates full-service networks in both Northern and Southern California. Race has deployed a system, similar to the proposed system, in Los Angeles at a large master-planned community. The same architecture, vendors, and operational support systems are being specified for the Kern County project. The L.A. network is standards-based, extremely reliable, and has yielded exceptional levels of customer satisfaction. The leadership team of Race has over 15 years experience in systems integration and has become known as the go-to-company for solving complex network and systems integration problems. The founders of Race Communications, Inc. operate a CLEC enterprise, Race Telecommunications, Inc., which is certified and licensed with a Certificate of Public Convenience and Necessity by the California Public Utilities Commission. Race Telecommunications, Inc. will deliver voice and video services to the ultimate customer. Race will be teaming with a Mojave-based technology partner to implement the advanced communications infrastructure. The local partner is well known in the community and serves on several community-service organizations. In the initial 3-year planning period the project cost will be \$98 Million. Additional capital will continue to be spent as new customers are added to the system. The capital likely to be spent in years 4 through 10 (outside of the ARRA funding time frame) on new customer installations will bring the total project cost to over \$105 Million. The overall cost per premises is approximately \$4,000. The subscriber projections for this project are 38% market share of the entire addressable market by year 10. This forecast is based upon serving principally the unserved and

underserved markets. In the commercial segment, the plan projects a 20% market share of the total addressable market by year 10. Market share forecasts are based upon the experiences of others who are operating in better-served and more competitive marketplaces. These projections anticipate a strong competitive response in the local marketplace resulting in capital investment in plant, lower prices, and improved services for the portions of the region they serve – an overall objective of the stimulus fund. Forecasting job creation and direct capital investment as a result of the Kern County broadband initiative is a difficult task. Much of the economic development success will be dependent upon the efforts of the local authorities. The direct impact of the initiative will be to create approximately 60 full-time positions during the three-year term of the construction. Following construction, the enterprise will create 12 full-time positions immediately and grow to 35 full-time positions by year five. More significantly, if we use the economic impact of similar broadband economic development initiatives, and scale the results to the size of the capital investment, this project will create over 3,000 jobs and \$300 million in private sector investment in the first five years of operation. Creating a robust communications infrastructure is a powerful economic development tool, but it must be aggressively promoted in conjunction with an area's other competitive advantages to achieve its full capability.