

Broadband USA Applications Database

Applicant Name: South Dakota Network, LLC

Project Title: Project Connect South Dakota- Delivering 10 Megabit Connectivity for Community Anchor Institutions.

Project Type: Middle Mile

Executive Summary

Statement of Problem: This BTOP Application for middle mile upgrading meets four of the BTOP statutory objectives. Project Connect South Dakota will serve South Dakota which is experiencing all the issues of a sparse and in some areas a declining population base. According to the US Census Bureau, South Dakota from 2000 to 2008 gained 6.75% in population with a population density of 9.9 residents per square mile. The statewide number does not illustrate the emptying of the rural areas to the cities. One example, Kingsbury County in east central South Dakota in the same eight years lost 7.2% in population and the population density is 6.4 residents per square mile. Another issue is distance between services. Typical of any Western state, wide open spaces are a fact of life and the nearest medical center could be hours away. If the local school closes, sons and daughters often have to move miles away during the school year to another town where a school is located. Healthcare providers and the public schools have found the solution to serving sparse populations is broadband. State government operates a distance learning school program. It is accomplished through a wide area network (WAN) for the public K12 and public universities. The company submitting this grant, South Dakota Network, LLC (SDN Communications), has supported for over a decade the efforts of these community anchor institutions. With the ever expanding capabilities of technology, the need for expanding bandwidth to help community anchor institutions has grown. SDN has built more local fiber to many desired locations. Today SDN, regional healthcare, and state government need even higher bandwidth speeds. Additionally as referenced above, there is a growing need to keep communities viable despite declining populations. Strained state and hospital budgets cannot support the deployment of fiber-based network facilities to these locations. Funds requested in Project Connect will support the classroom and healthcare video applications that currently cannot be fully deployed or supported. In the communities served by this project, the increased bandwidth will help attract businesses, allow for coordination of public safety agencies and, in general, provide access to better internet service for all customers. Overall Approach: The project will use ARRA funds to add backbone capacity to leverage the existing network of SDN and use ARRA funds to specifically target some intercity fiber deployment in areas where SDN has not placed fiber in the past due to economic infeasibility. The existing SDN network and the proposed extensions utilize Dense Wave Division Multiplexing (DWDM) electronics to deliver broadband service. The DWDM architecture permits seamless increases in bandwidth capacity by simply changing electronics at network end points in the future. SDN estimates that a minimum of 344 community anchor and public safety agencies will be added to the network. These new sites will complement the over 232 hospital, clinic, school, library, university and government

locations already served by SDN on fiber based infrastructure. SDN needs funds for the fiber construction, premise equipment, middle mile DWDM electronic equipment, end-point electronics, plus permitting, engineering and BTOP application development fees. These funds will create a basic network architecture needed to support the delivery of a minimum of 10 Megabits to the institutions and agencies. Area to be Served: The Project Connect application is for upgrading its middle mile span. This will be a statewide upgrade of SDN's network to improve connectivity. Non rural areas make up 28% of the end points to be served by the project with 72% being rural. Specifically, end-point school customers include 234 public high and middle schools, and 18 libraries not including school libraries that often serve as community libraries. The healthcare industry has 58 hospitals and clinics that will be upgraded. Government entities will additionally benefit - 47 courthouses; 131 federal/state government agency buildings; and 34 National Guard facilities. The ongoing partnership with Mitchell Technical Institute (MTI) will strengthen. SDN will use funding to provide state-of-the-art equipment and technology for use in training students for careers in broadband applications and deployment. MTI will also be able to provide continuing education and training opportunities for the management and staff of SDN and other technology providers and users in the state. Qualifications of the Applicant: SDN was established 20 years ago to fill gaps in the telecommunications infrastructure and service delivery of long distance calls. In 1995 SDN added broadband service for its customers. Since then SDN has established itself as the premier telecommunications provider in South Dakota and most recently in the region as the primary contractor for the South Dakota Research Education Economic Development (REED) Network, which connects state government, state universities, the deep underground Sanford Lab at Homestake in the Black Hills and the EROS Data Center. SDN has a strong, ongoing relationship with regional health care providers and state government within the state. SDN supports the efforts of business in communities throughout the state. Additionally, SDN provides a 24x7 Network Surveillance Center monitoring thousands of network devices and interfaces for customers including state government, and it operates a cable TV headend providing the latest in industry video applications. SDN does not unlawfully discriminate in its interconnection and service obligations, practices or policies. Its broadband policies and practices can be found on its website, which is updated regularly for customers. SDN has no customer or other complaints regarding service or other matters pending before federal or state regulators. SDN's 20 years of experience demonstrate its ability to operate and maintain this project. The technology to be employed is state-of-the-art and currently in use in the existing network. The operational staff is in place, the management team has a proven record of success in the business. Economic Development through Jobs: This is a middle mile project so job growth is difficult to estimate. What can be argued is the project will help keep communities viable as a place to live and work. Businesses settle where there are community anchor institutions and possibilities for success. Agribusinesses operating in South Dakota need improved bandwidth. Service companies and individuals that support agribusiness, healthcare, education, financial institutions, communications, and tourism can thrive and create job opportunities where they have enough bandwidth. These kinds of businesses in a community can lead to enough customers for an improved grocery store and similar facilities that foster a sustainable community in rural South Dakota. Cost: \$25.7 million