

Broadband USA Applications Database

Applicant Name: City of Santa Fe

Project Title: Santa Fe Regional Telecom Coalition Broadband Initiative

Project Type: Middle Mile

Executive Summary

Santa Fe is the cornerstone of the northern New Mexico region. It is the capitol of the state and the hub for education, public safety, business and other services in northern NM. Yet, data demonstrates that SF and northern NM youth and adults are at a great risk of dropping out of school and for developing life-threatening health conditions such as diabetes and long-term disabilities from alcohol-related diseases and injuries. Unemployment is high, drug abuse is rampant, and opportunities for self-improvement and advancement through education and workforce training are often out of reach for the local population, particularly for Hispanics and Native Americans. This proposal represents the cooperation of northern NM communities and 19 pueblos to provide a coordinated telecommunication infrastructure system and connectivity at affordable rates for the region. SFRTC (Santa Fe Regional Telecommunications Coalition) is comprised of the City of Santa Fe (City), Santa Fe County (County) and the Santa Fe Community College (SFCC) and includes the Santa Fe Indian School (SFIS) through a partnership agreement. These entities are working together to make the SF region a connected community, with unlimited access to information resources by building an open access interconnectable fiber optic infrastructure network. The local and tribal governments within Los Alamos, Rio Arriba, SF and Taos Counties formed the NM Regional Economic Development Initiative (REDI), which identified broadband as the region's number one infrastructure priority. Affordable broadband infrastructure supports critical community facilities and anchor institutions, such as, fire and police, businesses, schools, and medical facilities. This will enable the development of green grid technologies, and access to libraries and educational opportunities in the SF and northern NM region. SFRTC's proposed BTOP middle mile broadband infrastructure project is a component of a regional open network for northern NM. Open networking will make broadband more affordable and spur innovation and job creation in SF and northern NM. SFRTC's broadband infrastructure will serve as a key network to connect northern NM to bigger networks such as the national Lambda Rail. SFRTC is proposing to enhance broadband access in four service areas, three of which are underserved according to the NOFA. The fourth area is underserved due to the high cost for broadband connectivity. Service area 1 encompasses the SFIS, which serves 700 students from 19 Pueblos. The per capita income in this area is \$19,886.00. Approximately, 81% of SFIS students are eligible for the National School Lunch Program, placing SFIS in the 90% discount level for the FCC e-Rate program. Service area 2, which encompasses the SFCC and SF Studios, is a rural area. Distance learning opportunities to businesses and to students who reside in rural areas are limited because potential users do not have access to high speed broadband to enable them to use SFCC's online programming. Service area 3 is located in a poor, rural area of SF. The per capita income in this area is \$16,245.00, which is only 75.25% of the national average. Service areas 1, 2 and 3 all have

broadband take rates of less than 40%. These three service areas are considered underserved. Service area 4 includes 211 census blocks, located in an urban area of SF County. Nearly half (48.31%) of these census blocks have per capita incomes below the U.S. per capita income of \$21,587.00. SFRTC's service area is comprised of 8,197 households and 908 businesses. SFRTC's project will provide broadband infrastructure to various economic and workforce development locations throughout the region. Subscribership projections for the proposed project include 91 locations within SF and the surrounding area. The critical community facilities and community anchor institutions that will be direct customers of the proposed network include SFIS, SFCC, SFIS Health and Wellness Center, Institute of American Indian Arts, City government offices and facilities, including police stations, fire stations, and public libraries, County government offices and facilities, SF Public and Private Schools, and public housing projects. SF Studios, Santa Fe Complex, Hart Industrial Park, SF Incubator, National Center for Genome Research, Project News, Genzyme Genetics, Bicycle Technologies International, Ltd., and Pavilion Office Complex, will be the private sector anchor customers. The industries supported through the proposed project will be in the media, technology, knowledge-based enterprises, green sustainable technologies, and arts and cultural sectors. These anchor customers are the cornerstone of organizations that will provide the saved and new jobs created. The County media park's anchor tenant, SF Studios, is projected to create 400 new high wage jobs paying in excess of \$40,000.00 per year. Impact Data Sources estimates that the SFRTC's broadband initiative will stimulate the creation and retention of 2,324 direct jobs, which in turn will produce an additional 1,961 indirect jobs for a total of 4,285 jobs. Access to ubiquitous and affordable broadband services is a prerequisite for improving northern NM's economic and social welfare. The proposed project will stimulate the demand for broadband, economic growth and job creation during the next three years. Broadband access provides a conduit to open and accessible government, enhanced business competitiveness, and an improved quality of life, through improved delivery of services, such as health, education, and public safety. Health services, access to shared health education, and coordinated responses to health will be enhanced through tele-health applications in rural areas. The regional health providers, like Christus St. Vincent Medical Center and the Indian Health Services Hospital, and the SFCC Health Sciences Program will create opportunities for shared training of nursing, dental and support medical staff through virtual labs and research facilities supported by access to the State's super computer and Lambda Rail network. Further educational opportunities supported by access to high speed broadband include development of distance learning curriculum, workforce development for sustainable technologies, and delivery of education and training at the local business work sites and rural communities. SFIS plans to serve as a network point-of-presence for the 19 Pueblo reservations to provide enhanced distance learning and government collaboration. Access to broadband will enhance opportunities for emergency planning and sharing of disaster and recovery information among public safety responders. It will play a critical role in the productivity, innovation and economic growth of northern NM. SFRTC's proposed operating model is based on an "open fiber" approach, meaning the network inherently supports sharing the infrastructure amongst many agencies and end-users, while providing an "open" interface to any qualified service provider to connect to the network for delivering competitive telecommunications services offerings – on a fair and equal basis. The infrastructure architecture is based on a "Gigabit Ethernet" ("GIGE") style network for creating the metro-area fiber optic ring, which will deliver a 1 Gigabit per second network interface to every facility connected to the network, and easily support future expansion to 10 Gigabits per second. SFRTC's

regional open network will provide access to service providers under competitively neutral conditions. Service providers consist of any qualifying legal entity that provides voice, video, and/or data and services such as wireless, energy management, distance learning and telemedicine. This benefits: 1) service providers who can reach a larger customer base and sell their services without incurring capital costs; and 2) customers who will have access to more than one service provider, resulting in a greater variety in services and lowered costs. SFRTC is working to develop principles and management practices for the design, deployment and sustainability of publicly owned communications infrastructure. SFRTC member organizations were identified by the State of NM as key gateway connections that could maximize resources and provide for broadband at the community level, thus initiating a coordinated response to health care delivery, education, economic development and public safety throughout SF and northern NM. SFRTC brings extensive economic development, informational technology and project management experience to this project. Under this model, SFRTC would not be a service provider itself; instead it will be an infrastructure provider that enables a new market environment that service providers would utilize for creating new, innovative applications for achieving higher level goals of local community and business development, tele-health, distance learning, and overall quality of life improvements. The service providers utilizing the infrastructure will only have to cover the costs of supporting their end-user client base. With lower market barriers to entry and SFRTC offering a shared and open infrastructure, competition will increase. This affords any institution connected to the network to obtain or to contribute content or service from or to any institution or provider they choose. The high fixed costs associated with the need for each service provider to deploy its own infrastructure are removed. SFRTC is requesting \$6,000,000.00 from the NTIA BTOP to implement the proposed project. This figure will be matched by \$1,500,000.00 provided by the City and the County for a total project cost of \$7,500,000.00. SFRTC's proposed regional open network will support economic development, education, health care and public safety to target underserved areas of SF County. This network will enable SFRTC to provide connectivity to unserved areas of northern NM.