Broadband USA Applications Database

Applicant Name: REGION 18 EDUCATION SVC CTR

Project Title: Connect Southwest Texas

Project Type: Comprehensive Community Infrastructure

_______________________ Executive Summary_______________________

Connect Southwest Texas (CST) is a collaborative public-private effort to deploy critical middle mile infrastructure (fiber optic network) in a rural 19 county region - one of the most economically distressed regions in the state of Texas. The CST open access network designed by a proven team will provide for sustainable, robust broadband connectivity for residents, businesses, governments, public safety and core community anchors including medical providers, K-12 schools, community colleges, universities, libraries and economic development entities. A. CST region has seen limited investment in broadband infrastructure largely because of financial concerns - leaving much of the region unserved or underserved by private providers. With long distances to reach customers over difficult terrain and a population density insufficient to deliver a profitable return on investment, private providers are unable to build-out and expand their networks. In many cases the problem is that broadband does not exist while in other parts of the service area bandwidth is insufficient to meet the need of most of the anchor institutions including schools, medical facilities, public safety and community colleges/universities. Private providers and the local governments can not meet the need for a robust cost-effective middle mile infrastructure without stimulus broadband funding. Broadband stimulus funding provides the opportunity to deploy a cost-effective broadband network that will bring the Texas frontier to the forefront in economic growth where individuals, businesses and communities in Southwest Texas access the world equally and compete globally. CST started with a strategic vision and has worked closely with the public, private and non-profit sector in planning and developing an economically feasible and robust open access broadband network. Under the leadership of the Region 18 Education Service Center (ESC) and the Permian Basin Regional Planning Commission, months of planning have resulted in nineteen (19) counties partnering with six (6) private providers and 203 community anchor institutions including community colleges, universities, K-12 schools, health care institutions, housing entities, workforce centers, libraries including the Texas State Library and Archives Commission, public safety agencies including the Texas Department of Public Safety and numerous other stakeholders. CST consortium has identified fiber as the optimum solution to meet the current and long-term broadband needs of the region. CST public and private partners will provide in excess of a 30% cash match to the total project cost. Without an infusion of broadband stimulus funding the residents, businesses and community anchor institutions of this 19 county economically distressed region will remain part of the digital divide. B. CST network will reach 19 counties in southwest Texas from the border counties of Presidio, Brewster and Terrell to north of Interstate 20. The coverage area of 37,445 square miles is larger than the entire state of Indiana. The 19 counties include: Andrews, Brewster, Crane, Culberson, Ector, Glasscock, Howard, Jeff Davis, Loving, Martin, Midland, Pecos, Presidio, Reagan, Reeves, Terrell, Upton, Ward and
Winkler. Using the 2000 Census data, the largest city in the service area is Midland with a population of 94,996 and the smallest city is Ackerly with a population of 82. Twenty-four (24) of the communities are under 5000 in population. There are also unincorporated areas which are not large enough in population to be reported as communities on the census. C. CST buildout will provide 194 miles of new fiber and direct robust access to an estimated 390,667 population in 134,017 households and 33,741 businesses. D. CST will connect 203 Community Anchor Institutions to the network including 33 K through 12 schools, 3 community colleges, 2 universities, 20 libraries, 44 medical and healthcare providers, 13 public housing units, 7 workforce centers, 43 public safety entities and 38 governmental bodies including county and local government, courthouses etc. In addition the 3 community colleges and 2 universities are certified Hispanic serving minority institutions. Region 18 schools broadband capacity is maximized and inadequate to meet the needs of the schools in the service area. CST will result in all 33 K through 12 schools (75,754 students) having available sufficient bandwidth to meet the needs of every school with up to 1Gbps depending on each school’s unique telecom/IT bandwidth needs and budgets. By leveraging BTOP grant funds with our cash match funds CST will be able to connect all 33 schools in the region and ensure that all 75,754 students have access to critical broadband network connections. E. CST has partnered with 6 private providers to offer a menu of services to subscribers. This project builds-out the existing fiber infrastructures of the partner telecoms: Poka Lambro, Big Bend Telephone Company, Dell City Telephone, Grande, West Tex Coop and Hill County Telephone. The results is a standards based ethernet network with a 10Gbps backbone infrastructure. The partner telecommunication companies have existing agreements that allow the entire network to share data in a standard and open manner. F. CST is committed to the development of an open access and vendor neutral network. CST network is designed for multiple operators and will allow residential and commercial customers, government, public safety, education and medical facilities to acquire broadband services from a wide variety of service providers. It is specifically designed to seamlessly interface with all major communication carriers in North America and worldwide. Existing deployments of the proposed network carry critical medical records, backhaul cellular carriers, provide wholesale long distance connections as well as direct connections to the peering points to the robust broadband pipes of the Tier 1 Internet carriers. G. Region 18 Education Service Center (ESC) has extensive project management experience with large complex projects and the operational experience necessary to help ensure continued success. Region 18 manages critical telecommunications, internet and educational systems to deliver applications and interactive services from to and from schools, colleges and universities. Region 18 ESC has an existing wide area network in place that provides Internet and video conferencing services to all school districts, colleges and universities in the area. The network has been in place as a consortium for over 10 years and has provided services to its members by leveraging Chapter 41 funds of the Texas Education Code and discounts provided by the Universal Service Fund. Region 18 has also engaged a professional engineering firm with extensive experience designing, developing and managing communications networks. CST consortium and Region 18 ESC has chosen to execute its mission to provide robust and affordable broadband network in partnership with the expertise of existing private middle mile operators in the region. Each of CST’s six telecommunication partners are locally owned businesses or cooperatives that currently operate successful networks. Each of the private partners has been in business for over 50 years and are highly qualified to deploy and maintain the middle mile network. All of the six telecommunication partners are members of the Texas
Lone Star Network (TLSN), a consortium of independent telecommunication companies and their mission is to provide high quality, low cost service on an open and standard network. H. Because CST is expanding and buildout existing infrastructure provided by the private partner telecommunication companies, the overall projected cost of the project is $17,307,544 based on engineering studies. I. CST consortium expects all 33 of the K through 12 schools, 3 community colleges and 2 universities to subscribe to service immediately and anticipate over 50% of the community anchor institutions to subscribe to service within the first two years. J. It is estimated that 229 jobs will be created and/or saved as a result of this project including construction, network technicians, installers, management and application design and development. But the most important economic indicator of deploying this network is that broadband stimulus funding and local matching funds will ensure a globally competitive future for the citizens, businesses and communities in the region opening up endless economic possibilities as a result of broadband access. In summary, the CST buildout fills a gap in the middle mile network and addresses the critical current and future bandwidth needs of our public, private and non-profit partners. CST has a well qualified public/private team in place and is ready to build out and operate the CST Network. CST is a shovel-ready project that will commence upon grant award.