

## Broadband USA Applications Database

**Applicant Name:** Tribal Lands Telecommunications, LLC

**Project Title:** Tribal Lands

**Project Type:** Last Mile Remote

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### Executive Summary

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Offering advanced communication systems in Native American country is a challenge for a number of varied reasons. First, Native American reservations are located within some of the most remote and rural parts of the country. The population on the reservations are typically scattered across a large geographic area, making the cost of deploying advanced communications systems more expensive. In reservations where there is limited broadband access, penetration rates are low. This is due in part, to affordability of installation cost and monthly broadband access fees, lack of local support, and a lack of computer knowledge and understanding of the value of broadband services. Most of the Indian tribes have had little to no exposure to computer training necessary to use advanced broadband networks; however, the ability to access vital information for social, economic, educational, healthcare and business reasons are obvious. We are submitting this proposal on behalf of the Seneca Nation and White Mountain Apache Reservations, plus 16 other tribes located in Colorado, Arizona, Idaho, New Mexico and Washington. The tribes are either underserved or unserved. All of the tribes identified within this proposal want and need high speed broadband services plus all the economic benefits it provides. They want to be able to submit a grant proposal; however, because they do not have the necessary funds, personnel or assets to allow the preparation of a feasibility study and design, we are requesting the following: 1. Reimbursement of the feasibility, preliminary design and business plan work completed to date for the Seneca Nation and White Mountain Apache Reservations- \$110,000 (0.6% of the estimated network costs for the two tribes. 2. Funds to complete the feasibility study and business plan for the 16 tribes listed in the Last Mile Service Areas, an average of \$50,000 per tribe for a total of \$800,000. Our total current request is \$910,000. If awarded the funds in the December, 2009 timeframe, we will submit, as part of the third tranche proposal request, complete proposals for the final design, construction of the network and establishment of separate tribal communication companies staffed by tribe members, capable of operating the network and the services provided. 383 community anchor institutions will be served including libraries, schools, local government and support offices, public safety, and medical facilities. A chart under Supplemental Information provides the tribal locations, the number of households and businesses that will be passed or served. The chart also shows the Median Household Income (MHI) which is, at a minimum, 32% lower than the average MHI within these states. The poverty level within these reservations is 14% higher than the state averages poverty levels. The unemployment rates within the tribal communities are the highest in the country, with some reservations reaching over 50% unemployed. This application will create jobs and provide job and computer training, provide greater access to information and social services and will enable a network that is capable of producing economic and business development engine to improve the dismal

unemployment rates within these forgotten communities. Type of Broadband System The System is a Fiber to the Premises (FTTP) or Fiber to the Home (FTTH) network, using Calix F5 GPON equipment. For purposes of this document, FTTH and FTTP are meant as bringing fiber all the way to the home or to the business. The System is capable of supporting voice over IP services, traditional voice services, data communications, IPTV and RF video services, security and alarm monitoring, energy management and remote meter reading. The System can, if desired, , provide 1.2 Gbps downstream to the home and 622 Mbps upstream from the home to anywhere within the tribal community. Locations and homes that are located outside the community core will be served with a WiMAX system. The WiMAX system delivers low-cost, open networks and utilized an all IP mobile Internet solution enabling efficient and scalable networks for data, video, and voice. Services Offered and Interconnection Voice over IP services, cable TV, and broadband Internet services will be offered on this advanced network. Broadband access needs to be affordable in order for it to be used within these tribal communities. Free broadband Internet service will be provided to the schools, local public safety, libraries, and medical facilities for two years after the grant award and the network is built. Broadband Internet services for homes and businesses will be discounted by 25% to allow for greater broadband penetration. Computer and internet training will be offered to community members through the Computer and Job Center program submitted through the BTOP Program. The network will ultimately be owned and operated by the individual tribes, generating a new revenue stream for the tribal community and offering new job opportunities, by running a utility that is capable of supporting phone, cable TV and advanced Internet services. The network will be an open access network, allowing other service providers to use the network at wholesale prices, as well as allow other applications such as energy management, smart-grid systems, and automated meter reading, as well as alarm and security monitoring systems to be supported. The network will comply with non-discrimination and interconnection obligations. Applications Supported There are serious needs that are not currently being adequately supported for tribal communities. Although there are a number of organizations whose mission is to address these needs and help the Native American people, having access to these services through advanced broadband networks is crucial in order to benefit from these organizations and the services that they offer. This proposal will discuss in more detail the applications that will be supported with this advanced broadband network. These applications include telehealth, telemedicine, government and social services, distance education and economic development and job training. Qualifications of the Applicant Tribal Lands Telecommunications LLC is an Indian owned and managed joint venture between Zoomy Communications, Inc. and Tartoosh Environmental LLC. Tartoosh is a Native-American owned and operated company. The mission of Tartoosh Environmental is to design and build efficient and sustainable infrastructure; develop renewable energy projects; and facilitate sustainable wealth in Native American Communities. Robert Martin, founder and CEO of Tartoosh Environmental, is an enrolled member of the Makah Tribe. A recognized leader in environmental and Indian affairs, Robert's unparalleled experience has earned him numerous awards and honors and he has been the subject of books and video documentaries. LaDonna Harris is the Chairman of the Advisory Board for Tartoosh and Tribal Lands Telecommunications. She is President of Americans for Indian Opportunity, and has been a consistent and ardent advocate on behalf of Tribal America. In 1994, Vice President Gore recognized Harris as a leader in the area of telecommunications in his remarks at the White House Tribal Summit and then Secretary of Commerce Ron Brown appointed her to the Advisory Council on the National

Information Infrastructure. She has been appointed to numerous Presidential Commissions. Zoomy is a leader in the Fiber to the Home industry and has constructed world class, scalable FTTH networks for more than 45 communities, representing more than 150,000 homes with high end Internet, phone and cable TV capabilities. Zoomy has demonstrated technical capabilities that ensure the highest quality system is delivered to our targeted Native communities. Tribal Lands Telecommunications LLC is designed to address the broadband needs of the Native American people, while also addressing the cultural, educational, computer and job training barriers that currently limit broadband use by Native Americans. We offer a complete solution building the broadband infrastructure, building the Community Computer Center, and training community members in long term sustainability. Methodology, Feasibility and Subscriber Projections In order to submit this grant application, and to show the plan and feasibility of these projects, we have conducted preliminary design and engineering and business plans for two of the eighteen tribes. Further site survey work including the topology, soil conditions and final design still needs to be completed for these tribes. The Native American communities do not have the resources to pay for a engineering to even submit an application under this program. With the initial grant award, final design and engineering will be completed for tribes, finalizing the total capital costs required to build out. We will then submit a second grant application under the second or third traunche of funding to cover the capital costs to build out to these tribes. The business plan for the Seneca Nation shows feasibility with subscriber penetration of 40% of the passed units within three years. The business plan for the White Mountain Apache tribe projects 35% subscriber penetration of units passed. Number of Jobs Created As unemployment in these tribal communities is the highest in the country, the advanced broadband network will be one of the most significant improvements toward job creation. We anticipate creating 2,600 new jobs with the buildout, operation and new economies available to the 18 tribes proposed.