Broadband USA Applications Database

Applicant Name: NTCH, Inc.

Project Title: NTCH (Cleartalk) North Carolina Broadband Wireless Last Mile Eastern & Coastal Application

Project Type: Last Mile Non-Remote

_______________________ Executive Summary _______________________

OPPORTUNITY: This Cleartalk Broadband Infrastructure Program (BIP)/Broadband Technology Opportunities Program (BTOP) infrastructure application, aims to bring the benefits of job creation, long-term economic growth, health care access, business opportunities, distance learning and narrowing gaps in broadband delivery and adoption to underserved & unserved rural areas of NC. Cleartalk proposes to cover 19,625 square miles in 38 counties which meshes with the existing high speed affordable coverage and planned coverage of Leap Wireless’ (Cricket) Communications broadband network in North Carolina’s major metropolitan areas. A report by Connected Nation released in 2008 (The Economic Impact of Simulating Broadband Nationally) estimated that increased broadband adoption in North Carolina would create more than $2.4 billion in direct income growth and create or save more than 69,400 jobs. By adjusting these totals for covered population (38 counties “Service Area”) this network should create and save over 16,400 jobs (22-26 employees for NTCH-Cleartalk) and produce $573,000,000 in direct income growth. A BTOP Sustainable Broadband Adoption application(s) and a BTOP Public Computer Centers application will allow for a complete solution in the proposed North Carolina service area for those who are prevented from using high speed broadband because of access or affordability. Cleartalk is working in this regard with the state library system to provide for a free lending program of portable computers to be checked out through schools, libraries, and community outreach facilities. In addition to fixed location distribution, Cleartalk will either submit (in subsequent round) or facilitate the submission of a proposal from an existing in-state partner to have at least three mobile “Netbook-Mobiles” that will travel throughout North Carolina’s rural areas. These “Netbook-Mobiles” will make regular stops in all counties, providing access to the internet through mobile computers available for checkout and facilitating education/awareness of mobile internet and other technologies. This allows for all the anticipated benefits of this program to be available to everyone in this service area, regardless of income level or rural location. The availability will be the same as checking out a library book just like generations past. See Q41 for more detail on planned partnerships. The first and most important step is to deploy the enabling technology that this will bring these benefits to all North Carolina. Cleartalk proposes deployment of a 3G wireless network and an open middle mile high bandwidth IP backhaul network. This 3G (EVDO Rev A) network will be priced at $35 per month with a 25% discount to “Critical Community Facilities”. The network will be deployed on a new generation of “Software Defined Base Stations” that will allow for the deployment of 4G (either LTE or WiMAX with speeds up to 100 Mbps) wireless technology on the same network at minimal cost. Mobile broadband is the future and this investment insures sustainability; just as phones have migrated
from fixed based stations to wireless platforms so too is broadband. The broadband network deployed
will use owned & leased federally licensed AWS (1700-2100 MHz) spectrum, local switching, available
industry standard infrastructure and devices with a high percentage being domestically manufactured
using US based intellectual property. The Cleartalk backhaul or middle mile network that is part of this
deployment will extend the availability of high capacity bandwidth (up to 1000 Mbs) to virtually
anywhere in the eastern half of the State of North Carolina. Cleartalk’s applications combines the most
cost-effective last mile proposal making high speed internet available to every person on a mobile basis
with the most cost-effective middle mile proposal making high capacity internet bandwidth and
transport available to fixed locations virtually everywhere in the state. GENERAL DESCRIPTION:
Cleartalk’s proposal will bring the benefits of broadband to 300 census designated communities,
791,660 households, 85,280 businesses and 11,048 community anchor institutions in a 97% rural service
area. PROPOSED SERVICES: Cleartalk will serve these communities, businesses and community anchor
institutions with wireless broadband with speeds in excess of 2.5 Mbps downstream and 700 kbps
upstream (actual speeds currently provided in Cleartalk’s existing networks). Cleartalk’s wireless
infrastructure is ready for next generation wireless technology that will offer these communities mobile
internet speeds up to 100 Mbps at minimal cost when 4G wireless equipment and customer premises
equipment (CPE) become available. Our backhaul network will provide internet and high bandwidth
transport to fixed users of up to 1000 Mbps throughput. High bandwidth transport and internet will be
quoted competitively where competition exists but in most of the areas where it does not, the pricing
will be aggressive with a goal that rural users have this bandwidth available at the same or similar cost
as a user in an urban location. NONDISCRIMINATION & INTERCONNECTION: Cleartalk is committed to
following the nondiscrimination & interconnection obligations of the Recovery Act. Cleartalk believes in
the benefits of an open internet & competition. We are committed to providing service to our
subscribers on a non-discriminatory basis subject to generally accepted network management practices
to ensure acceptable levels of service. Cleartalk also welcomes resellers, has a history of partnering not
displacing existing business, and will provide wholesale rates and exclusive territories on a best of class
platform to businesses able to extend sound management and customer care execution into these rural
communities. Cleartalk will actively sell bandwidth and transport on the installed backhaul network,
created by this deployment to other carriers and will interconnect to any network that makes economic
and business sense. BROADBAND SYSTEM: Cleartalk’s broadband system employs the newest wireless
infrastructure technology. The “Software Defined Base Stations” deployed can provide for CDMA, GSM,
HSDPA, EVDO and the 4G technologies that have been chosen by the major carriers, WiMAX and LTE.
The system deploys a soft-switch core and all native IP backhaul. These radios will also accommodate
deployment of a long planned public safety interoperability network at 700 MHz. This is a split
architecture base station deployment, which uses fiber instead of coax to carry the signal up the tower,
and the latest antennas. This provides for up to a 5 db improvement in RF performance and expands
coverage on a given site up to 5 miles further than traditional networks. These are not theoretical but
actual results from our country’s first market deployment of this technology, by Cleartalk in Grand
Junction, CO. The increased power and range of this system means large reductions in cost and large
improvements in signal penetration and consequent performance especially in rural markets.
QUALIFICATIONS: Cleartalk currently operates and provides broadband services commercially on the
same network infrastructure as proposed in this application. Cleartalk started in Grand Junction, CO and
has been focused on rural communities in over 10 states for ten plus years. In rural markets Cleartalk pioneered the concept of unlimited use, no contract, no credit check wireless, has become one of the ten largest owners of communication sites and has never gone beyond its operational or financial capabilities. Cleartalk is the rare wireless company that has built itself through service and entrepreneurship from an original Minority Enterprise Small Business Investment Corporation (MESBIC) funding of $6,000,000 to its current operations. Cleartalk has always honored its obligations, provided excellent returns and still remains virtually debt free. We have the respected relationships with the major equipment vendors and tower companies needed to facilitate success in this venture. Cleartalk has a history of public service and cooperation in working with small local companies across its existing service areas. http://cleartalk.net/community.php. SUSTAINABILITY: This proposal looks to multiple revenue streams including data subscribership, voice revenue, 3G and 4G roaming and machine to machine applications. The scope of the deployment will attract many roaming partners from small carriers seeking targeted roaming to large carriers seeking coverage expansion to rural areas. We can connect to other carriers through one central switch and also provide switching services to other small carriers for this purpose. The key to sustaining the deployments is to make these rural deployments accessible to big carrier networks by making interconnection simple and financially beneficial. Cleartalk has existing roaming agreements with Cricket, Metro-PCS and Verizon Wireless. COST: The overall infrastructure cost of this NC 38 County service area is $48,136,360. However we are only seeking $24,020,044 of grant funds in our BIP proposal which equates to $11.66 per covered population. Extremely cost effective based on industry benchmarks and the delivers both a best in class last mile and middle mile solution. PROJECTED SUBSCRIBERS: Projection numbers in our business model are conservative and based on our experience & analysis we project 75,267 subscribers out of 2,060,496 people at the end of the funding period. Network Design: Our NC network was designed using state-of-the art software provided by Pitney Bowes, Map Info Professional and Stimulus Telecom Data Pack (2000 Census data per NOFA) and Celplan Technologies (Reston, VR) in agreement with well established industry standards. Our design is precise and accurate though not in agreement with the mapping tool data.