

Broadband USA Applications Database

Applicant Name: NTCH, Inc.

Project Title: NTCH (Cleartalk) California Broadband Wireless Last Mile/Middle Mile application

Project Type: Last Mile Non-Remote

Executive Summary

NTCH (Cleartalk) California Broadband Wireless Last Mile/Middle Mile application OPPORTUNITY: With the funds awarded from the Broadband Infrastructure Program (BIP)/Broadband Technology Opportunities Program (BTOP), Cleartalk aims to bring the benefits of improved broadband deployment to underserved rural areas of Imperial County, California. This proposal is designed to further the goals that NTIA must meet as part of the BTOP program, in spurring job creation, stimulating long-term economic growth and opportunity, health care access and narrowing gaps in broadband build out and adoption. Imperial County has the highest unemployment rate in the nation, 27.5% (Bureau of Labor Statistic June 2009). On March 4, 2009, a story in the New York Times stated that if the nation's recession has a "capital city", it is El Centro, the Imperial County seat. 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 public entities partnering with us. The network will be deployed on a new generation of software defined base station 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. A WiMAX deployment on this same network for example will cost less than a million dollars additional. Cleartalk will be working together with public agencies in the rural areas of the County such as the El Centro Police Activities League and other agencies that work with the disadvantage youth, the Chamber of Commerce in the several rural towns, Imperial Valley Economic Development Corporation (IVEDC) and the County's mobile library to provide a free lending program, with portable computers to be checked out at these agencies the same way library books have in the past from libraries. Importantly both the training and the computers made available for use will all be on the same best in class mobile platform. This proposal will allow access to the internet to be accomplished by everyone in Imperial County regardless of income level or rural location. The broadband network deployed will use owned federally licensed PCS, local switching, available and industry standard infrastructure and devices, and a high percentage of true domestic manufacturing and intellectual property in the equipment chosen. The Cleartalk backhaul network will bring high bandwidth of over 100mbps to within reach of any area in the County. GENERAL DESCRIPTION: The funded service area will be virtually all the inhabited areas of Imperial County, California. The proposal will bring the benefits of broadband to 43,891 households, 3,683 businesses, 513 Community Anchor Institutions (33 Public Safety entities, 119 Critical Community Organizations, 259 Health Care Providers, 93 Educational Institutions (Including 6 Colleges and Universities) and 9 Libraries). PROPOSED SERVICES: Cleartalk will serve these communities and its business and community anchor institutions with wireless high-speed broadband provided over an EVDO Rev A 3G network offering speeds in excess of 2.5 Mbps downstream

and 700 kbps upstream. These are actual speeds provided in Cleartalk's existing deployments. Cleartalk's wireless infrastructure is ready for next generation wireless technology that will offer these communities speeds up to 50 Mbps download at minimal cost with 4G wireless equipment and customer premises equipment (CPE). This service will be available to both fixed and mobile users on standard low cost devices used by the large national carriers.

NONDISCRIMINATION AND INTERCONNECTION: Cleartalk is committed to following all of the nondiscrimination and interconnection obligations of the Recovery Act. Cleartalk believes in the benefits of an open internet and competition. We are committed to providing service to our subscribers on a non-discrimination basis subject to generally accepted network management practices to ensure acceptable levels of services to our customers. Cleartalk also welcomes other companies to resell all our products and will provide wholesale rates for this purpose. Cleartalk will actively sell bandwidth and transport on the installed backhaul network from this deployment to other carriers.

BROADBAND SYSTEM: Cleartalk's broadband system employs state of the art wireless infrastructure technology that is ready for future wireless standards to allow its customers to benefit from technology leaps on an incremental cost basis. 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. 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 farther than the traditional networks. These are not theoretical but actual results from our country's first market deployment of this technology done by Cleartalk in Grand Junction, Colorado. Cleartalk's network is enabled through a softswitch core and software-defined base stations manufactured by Huawei Inc., a worldwide technology company doing over \$23 billion in annual sales last year. These base stations will be matched with native IP backhaul radios from Trango Systems, Inc., a Poway, California-based manufacturer of high capacity, carrier microwave radio systems with proven performance in some of the most difficult environments operated by Cleartalk. Middle mile service will use a combination of microwave backhaul and fiber networks. Cleartalk will choose aggregation equipment that works best with the fiber networks of its backhaul providers. Cleartalk will make full use in our backhaul and middle mile design of all stimulus funded and publicly owned networks that allow access at a competitive price.

QUALIFICATIONS: Cleartalk currently operates and provides wireless services commercially on the same network infrastructure as proposed in this application. Cleartalk started in Grand Junction, Colorado and has been focused on rural communities in over 10 states for over ten years 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 MESBIC (Minority Enterprise Small Business Investment Company) funding of \$6,000,000 to its current operations. Cleartalk has always honored its obligations and provided excellent returns to its investors as it has grown. Cleartalk is virtually debt free and is a respected by the equipment vendors and tower companies that are needed to facilitate its success in this business. Clear Talk also has a history of working with small local companies across the 10 states where they operate (<http://cleartalk.net/community.php>), and with cooperating with public service. In Imperial County, Cleartalk has been assisting the Imperial County Emergency Communications Authority (I.V.E.C.A.) with their continuing deployment of a network and the Imperial Valley Telecommunications

Authority (I.V.T.A.) with their many and varied projects. SUSTAINABILITY: This proposal features 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 funded in this program is to make these rural deployments accessible to become part of the big carriers' networks because it is easy to connect to them and it is financially beneficial. Cleartalk has existing roaming agreements with Cricket, Metro-PCS and Verizon Wireless. COST: The overall infrastructure cost for the Imperial County service area is \$5,570,000. We are seeking \$2,228,000 in grant funds in our BIP proposal which equates to less than \$16 per covered population. As mentioned, for less than 1 million additional, the data offering can be upgraded to WiMAX. PROJECTED SUBSCRIBERS: Projection numbers in our business model are conservative and are less than 4% of covered population in three years. We are only projecting 6,499 subscribers on this service within the funded period. JOBS CREATED OR SAVED: Based on the statistics published by the Connected Nation website for the state of California and based on the population covered in our service area it would be expected that this proposal would result in 1,023 jobs saved and over 51 million dollars in positive economic effect. CONCLUSION: This proposed funding brings together the greatest need with the greatest capability and leverages a company with existing operations to accomplish this at a very low cost.