Broadband USA Applications Database

Applicant Name:  NORTHERN ILLINOIS UNIVERSITY INC

Project Title:  Illinois Broadband Opportunity Partnership Northwest Region

Project Type:  Comprehensive Community Infrastructure

_______________________ Executive Summary_______________________

OPPORTUNITY THE PROPOSED SYSTEM SEeks TO ADDRESS: Northern Illinois University (NIU) is pleased to submit this proposal to the U.S Department of Commerce, National Telecommunications and Information Administration for the Recovery Act Broadband Opportunities Program (BTOP). NIU has worked throughout the State of Illinois creating partnerships for the development of broadband over fiber optic networks the past 7 years. In this proposal we have gathered outstanding institutions throughout northern Illinois to become participants in the consortium called the Illinois Broadband Opportunities Partnership ' Northwest Region (IBOP-NW). This organization of technologists has been coordinating a broadband plan for the region to promote low cost, high speed broadband solutions for not-for-profits while creating an environment that will allow for-profits to take advantage of low-cost broadband services and fiber. The consortium was created as a result of the lack of infrastructure to support high-speed, low-cost broadband solutions in the northern Illinois region. Several of the supporting institutions are limited to less than 2Mbs or T-1 speeds, hindering the development of education, healthcare and business models that require broadband in much greater and flexible capacities. The IBOP-NW proposed broadband model will create a fiber optic network throughout the region allowing for unrestricted speeds over dark fiber for anchor institutions and dark fiber and gigabit speeds for businesses. We are committed to bringing connectivity to rural areas throughout the Northern Illinois region and assisting communities, schools, libraries, healthcare and the private sector with technology which will transform these areas with affordable broadband high speed connectivity now and for the future. The objectives of the IBOP-NW consortium include the following applications: 1) To execute a public/private relationship with local businesses and providers of broadband services to deliver complete broadband service or dark fiber optic connectivity in a non-discriminating business model. Execution of the IBOP-NW model will allow small business Internet Service Providers to develop residential solutions at a low cost. 2) To utilize existing not-for-profit networks and technologies and leverage what is already created. These networks include: DeKalb Advancement of Technology Authority (DATA) (Public/Private) Round 1 Easygrant #2823; Northern Illinois University Regional Network (NIUNet) (Public Only); Northern Illinois Technology Triangle (NITT) (Public/Private); Illinois Municipal Broadband Communications Association (IMBCA) (Public/Private); TriRivers Heath Organization network (TrilightNet) (Public/Private); Northwest Municipal Broadband Authority (N MBA) (Public Only); Illinois Century Network (ICN) (Public Only); Illinois Rural HealthNet (IRHN) (Public/Private Medical); Internet 2 (Public Only). These networks will allow public and private entities to connect to state-of-the-art terabit networks for wholesale transport services or bulk internet services from bulk rate service providers. 3) To connect school districts and colleges locally with a dark fiber solution allowing the schools to upgrade
speeds locally, when required, without renegotiation of costly contractual services agreements. The IBOP-NW model will allow school districts to interconnect at gigabit and greater speeds. The model allows sharing of data resources and services between schools over a backbone network that will be created over a dark fiber regional backbone. The schools will connect either to NIUNet or the ICN where they can obtain high speed broadband services from Internet 2 as required by the needs of the districts. 4) To create a cooperative of farmers that will allow the sharing of resources and reduced costs of broadband to the farming community. Farmers will be allowed to interconnect so they can monitor and obtain services required between facilities. Through a cooperative sharing of services with the local farm bureau, farmers will be allowed to transfer data from the farm to suppliers for analytical processing in obtaining proper quantities of supplies for maximum yield of agricultural products. The expanded plan includes the distribution of wireless services from strategically placed fiber optic locations to reach out to rural residential consumers where dialup services are the only available options. 5) To interconnect municipalities and county governments to provide a backbone infrastructure for emergency services and disaster recovery. The connectivity will allow municipalities to integrate with county services and provide the required transport speeds to deliver GIS imaging and data backup services. 6) Create a secure network for judicial facilities that include municipal prisons, the Thompson Federal Prison and the Sheridan State prison. NUMBER OF BUSINESSES AND HOUSEHOLDS TARGETED FOR GRANT PROPOSAL: The IBOP-NW region has partnerships with over 10 communications providers in the region. These partners include regional telephone companies, cable providers and service providers that are local to the IBOP-NW region. The IBOP-NW plan has the potential to deliver broadband services to over 16,904 businesses and 282,797 households in the area. NUMBER OF COMMUNITY ANCHOR INSTITUTIONS PASSED AND/OR INVOLVED WITH THE PROJECT: The IBOP-NW consortium seeks to connect 195 K-12 schools, 126 government facilities, 96 public safety sites, 63 healthcare providers, 43 library locations, 1 farm bureau, and 7 community colleges. PROPOSED SERVICES AND APPLICATIONS FOR THE PROPOSED FUNDED SERVICES AREAS AND USERS: The ultimate goal of IBOP-NW is to create a fiber optic system throughout the region that can be used for state-of-the-art high speed broadband connectivity. The consortium is working with public and private organizations in a cooperative to share the costs of a 144 count fiber optic system whereas the public sector will own 48 fibers allowing for increased broadband technology within the Northern Illinois region. Partners in the IBOP-NW consortium include 3 cable TV companies, 1 telephone company and several broadband companies. The consortium plans to offer: dark fiber services, lambda services, broadband services from 10mb to 10Gigabit, and wireless services, which will reduce the cost of broadband connectivity for public and private organizations. TYPE OF BROADBAND SYSTEM THAT WILL BE DEPLOYED: The primary system deployed for the IBOP-NW region will be a dark fiber middle-mile network. Provisions for a DWDM network capable of terabit speeds have been designed within areas for use by the public and private sectors. A minimum of 1 Gigabit or dark fiber has been allocated to each anchor institution. APPROACH TO ADDRESSING THE NONDISCRIMINATION AND INTERCONNECTION OBLIGATIONS: The IBOP-NW consortium is comprised of 3 regions in Northern Illinois that have created interconnection points throughout the fiber optics system. In the event of other Illinois BTOP grant awards, interconnection points have been created as part of the Illinois Broadband Technology Partnership state wide initiative. It is the intent of the IBOP-NW consortium to create an open access environment allowing fiber optics and services available to anyone that requires services. The public sector can also allow services to be
obtained in a non-discriminating offer under Illinois Public Act 095-0684. QUALIFICATIONS OF THE APPLICATION THAT DEMONSTRATE THE ABILITY TO SUSTAINABLE MODELS: NIU has worked in the development of broadband consortia for the past 7 years creating more than five successful broadband initiatives that have been sustainable for public and private use. This is a model that NIU has successfully developed. OVERALL INFRASTRUCTURE COSTS OF THE BROADBAND SYSTEM: The proposed IBOP-NW consortium is requesting $69,594,431 to build a fiber optic network over the next 2 years. The projected costs will include over 705 miles of fiber, communications equipment that will provide services for all of the listed entities and wireless infrastructure to further reach outside of the populous area. OVERALL EXPECTED SUBSCRIBERS PROJECTIONS FOR THE PROJECT AND JOBS ESTIMATED TO BE CREATED OR SAVED: The construction of the fiber optic cable will result in the creation of 303 jobs over the next 2 to 3 years. The anticipated indirect jobs are 182 and after the completion of the stimulus funding, it is anticipated that many of these jobs will be retained for the continued expansion of the fiber optic network. As the network expands, it is anticipated that the IBOP-NW area will add as many as 272 jobs to support the connectivity for public and private businesses.