Broadband USA Applications Database

Applicant Name: TOWNSHIP HIGH SCHOOL DISTRICT 211

Project Title: Northwest Suburban Network Consortium Community Comprehensive Infrastructure Project

Project Type: Comprehensive Community Infrastructure

Executive Summary

With today's requirements for superior, near real-time bandwidth communication, an infrastructure providing enhanced services is required in metropolitan areas. An infrastructure providing high-speed, resilient communication between key facilities supports the demands of today's public safety and educational entities. With a consortium of over 21 public entities with a planned 170 points of presence throughout the 3 cities, the proposed infrastructure will provide high-speed internet networking to public safety, education, entities servicing at-risk populations, and private partners. The proposed infrastructure consists of buried fiber optic cabling, providing a long-term, standard, upgradable infrastructure augmented by high-speed point-to-point wireless communications. Some of the points of presence identified are at high points of the cities, providing possible private partners with facilities for last-mile communications. With an expected cost of 12M and a build-out schedule of 3 years, many of the required facilities and rights-of-way are already within the control of partnership members. Municipal partners have been very successful in the structure, governance and funding of consortiums, with the implementation of Northwest Central Dispatch center, a consortium of over 12 communities for the dispatch of public safety. Other partners include Northern Illinois University (NIU), who has been successful in the implementation of multi-jurisdictional network consortium efforts such as NIU net and many others. Overall, Northwest Suburban Network Consortium Community Comprehensive Infrastructure Project contains all of the attributes to become a successful project by many of the goals set forth in BroadbandUSA.

a. Opportunity the Proposed System Seeks to Address

The NSNC was formed to explore the potential benefits and related cost of forming a regional high-speed broadband network that could meet the combined needs of local governments, school districts, library districts, park districts, a community college, a multi-jurisdictional public safety dispatch operation, a major university, and 2 major privately owned hospitals in the area and a State agency. Initial efforts to expand individual NSNC member networks were too costly and as a result, a combined regional network concept was developed to share the initial infrastructure costs and expand the potential benefits that could be achieved through this collaborative approach. High-speed bandwidth is required to support the function of all of the member agencies while providing the capability for continued, affordable growth to support the future. Given our current economic environment and declining revenue, budget reductions and headcount reductions for some NSNC members, this Network will NOT be implemented and the benefits NOT gained without additional funding. This Network meets multiple statutory requirements and will enhance public safety (police, fire protection), provide disaster recovery capabilities, improve service delivery to the citizens, students, library patrons, parks users, low income,
aged, disabled and challenged, patients and businesses. This Network will serve as an economic stimulus to the area as the NSNC upgrades its infrastructure, creates local jobs and supports residents seeking employment and new training (grade schools, high schools, community college). b. General Description of Proposed Funded Service Areas The Consortium consists of three Chicago suburbs: Hoffman Estates, Schaumburg and Palatine. This Network will also serve additional residents of the adjoining communities of Arlington Heights, Elk Grove, Hanover Park and Rolling Meadows. Several of the organizations, such as the Alexian Brothers Health Systems, Northwest Community Hospital, Northwest Central Dispatch Systems, Harper College, Northern Illinois University and the Illinois Century Network support a significantly larger population area as their facilities are regional in nature. c. Number of Households and Businesses Passed The core Villages support the needs of approximately 200,000 residents, 77,020 households and over 6,200 businesses. d. Consortium Members The Consortium consists of 21 members and includes seven local governments, three school districts and three park districts, two libraries, two major private health care institutions, a public safety organizations all of which have signed a memorandum of understanding. (See Attachment). Letters of Support include IBM, Motorola, Business Over Broadband, and Little City and are presented in an attached upload. e. Proposed Services and Applications for Users The Consortium was established to provide the Members with the required infrastructure and adequate bandwidth to service their users. The applications supported will include government operations, public safety, school safety, education, health care, library services, recreation and other services. Other community organizations such as Little City will also benefit that provide job training, disabled and impaired computer users, support for children and adults with intellectual and developmental disabilities and other services Schools, libraries and parks require increased bandwidth to accommodate the ever increasing number of users, access to the Internet for streaming video, video conferencing and distance learning. This Network will provide the required connectivity and additional bandwidth for the Northwest Central Dispatch System which dispatched over 274,000 calls for local public safety. Increased bandwidth will also help support video security monitoring of parking lots, bus loading areas, parks facilities and remote areas in individual buildings. Many Members also assist residents seeking employment, provide training and access to the Internet. Parks and libraries will be able to provide free internet and access to computer labs. Furthermore, this Network will expand the awareness and benefits to disabled constituents and computer access for challenged individuals. f. Non-Discrimination and Interconnection Obligations The Network will be totally open to all Consortium members and their respective end users and patrons. The Consortium will work with private industry to insure compliance with Non-discrimination and Interconnection obligations. g. Network Design This Network will be implemented in a timely manner, because the NSNC is working to meet the demand of consortium members. Each of the Villages has constructed limited fiber optic and high-capacity wireless networks to link many of their facilities. The NSNC has also leased fiber optic cable along the Illinois Tollway to link the NSNC to adjacent communities including the City of Elgin, Northern Illinois University and Community Consolidated School District 300. Currently none of the consortium members has access to Internet2. This new network would enable Internet2 access. Internet2 is a resource intensive research and education consortium h. Consortium Qualifications The Consortium’s skills and expertise in implementing broadband networks is a strength of the consortium membership. Project Team members have installed over 240 miles of terrestrial and wireless high speed networks in other networks. A governance structure has been developed that will manage the Network to insure an on-time and on
budget completion, while at the same time providing the organizational structure and sustainability to continue to provide these services well into the future. The Villages of Hoffman Estates, Schaumburg and Palatine will support the required maintenance of the infrastructure just as they support all existing utilities and infrastructure. i. Infrastructure Cost The Overall projected infrastructure cost for the Network is $12.0 Million. The NSNC will provide a minimum of 30 percent. j. Expected Subscriber Projections It is estimated that all 21 Consortium members will subscribe and share in the Network. Attachment H highlights that the Network will be rolled out to the 170 Member facilities that cover a major portion of the Northwest suburbs. Future growth with other adjacent communities and consortiums will provide for additional services. Representative organizations include the Northwest Municipal Conference consisting of 47 communities and Choose DuPage consisting of 38 western suburbs. k. Estimated Job Creation The majority of the new Network costs of $7,900,000 are related to engineering, construction and professional services. These services would be provided by local firms to create jobs and serve as an economic stimulus to the region, while providing needed high speed communication capabilities. We estimate that the installation and build out of this Network will directly create approximately 100 professional services and construction jobs, and indirectly a significant number of additional jobs related to the network components.