

Broadband USA Applications Database

Applicant Name: IOWA COMMUNICATIONS NETWORK

Project Title: Bridging the Digital Divide for Iowa's Communities

Project Type: Comprehensive Community Infrastructure

Executive Summary

a. **OPPORTUNITY:** Iowa is predominantly a rural state, heavily dependent on farming with few metro areas (the largest is Des Moines at 200,000 pop). As with any predominantly non-metropolitan area, providing network connectivity is difficult and expensive. The opportunity presented by the BTOP funding would allow rural Iowa's to overcome the distance penalty inherent in non-metropolitan areas, and enhance educational, healthcare, employment and government service opportunities for the entire state. The particular opportunity available with coordinated BTOP initiatives is leveraging of Federal funds by combining the capabilities and reach of the existing, state-owned fiber optic network established in 1993 with the largest purpose built healthcare network in Iowa. Due to growing capacity demands both of these networks have a significant need of upgrading and modernization.

b. **SERVICE AREA** The existing Middle Mile network reaches all 99 Iowa counties, and was originally established in 1993 as the Iowa Communications Network (ICN). The network consists of 3000 miles of state-owned fiber plus 3500 miles of fiber from local telephone companies and national carriers. BTOP funding would enable a significant capacity upgrade to the network throughout the state, and allow the authorized users such as community colleges and healthcare facilities to catalyze the creation of expanded Last Mile services to their end users.

c. **HOMES & BUSINESSES PASSED** There are 1,149,276 homes and 244,211 businesses in Iowa. Because the Middle Mile network reaches all of Iowa's 99 counties, there is potentially ubiquitous coverage of all homes and businesses to the extent that Last Mile Providers can build on the services to be made available by the new Middle Mile network capacity.

d. **COMMUNITY ANCHOR INSTITUTIONS PASSED** ICN serves 2617 statutorily-defined authorized users (all Community Anchor Institutions) located in all 99 counties including all 362 school districts totaling 584 K-12 locations, 15 community college districts, five major hospital healthcare networks serving 185 health care providers, 64 libraries, 318 public safety entities, and 14 state and federal government departments comprising 1076 locations.

e. **PROPOSED SERVICES & APPLICATIONS** The proposal is for a Middle Mile network, with the end users making the determination of what applications they desire to use on the network. Through partnerships with education, public safety, healthcare, the judicial system, state and federal government agencies, and the National Guard, ICN currently brings video, video over IP, voice, data, WAN connections, and high-speed Internet Services to its users. The grant funds would be used to significantly upgrade the capacity of the network to 21st century standards, with a 10 Gbps backbone and 1 Gbps capacity to all CAI users, thus enabling them to provide state-of-the art services to their end users through their Last Mile facilities.

f. **NON-DISCRIMINATION & INTERCONNECTION** There are no restrictions on ICN service for authorized users of the Network. ICN represents an open system to state government and quasi-governmental institutions as a public resource through strong and sound

interconnection and non-discrimination BTOP-aligned practices, as well as to Internet and Internet2 networks. To maximize service access to CAI entities, ICN's network management policies and practices provide services on an equitable, non-discriminatory, statewide basis. g. TYPE OF SYSTEM DEPLOYED ICN intends to deploy standards-based (IEEE) wide-area, open access, carrier neutral Ethernet transported on underlying Dense Wavelength Division Multiplexing (DWDM), with network extensions that may include standard telecommunications carrier circuits. h. QUALIFICATIONS OF APPLICANT ICN has been operating the state-wide network since 1993. ICN is a recognized FCC common carrier, operates a 24-hour Network Operations Center service (NOC) and has provided secure, reliable broadband access to thousands of users on a 24x7 basis for 17 years. i. OVERALL COST OF INFRASTRUCTURE The estimated total cost of the project is \$23,867,544 j. SUBSCRIBER PROJECTIONS All of the current Middle Mile customers (2,617 CAI) are expected to maintain and increase their usage of the system. Last Mile customers enabled by this Middle Mile Project is potentially 3,000,000, the entire population of the State; at 5% penetration the potential subscribers could reach 150,000. k. JOBS CREATED ICN estimates the project will create, directly and indirectly 257 jobs utilizing the Council of Economic Advisor's guide for determining job creation.