Broadband USA Applications Database

Applicant Name: COOK, COUNTY OF

Project Title: Illinois: Cook County & South Suburban Mayors & Managers Association Regionally Connected Consortium

Project Type: Comprehensive Community Infrastructure

_________________________ Executive Summary _________________________

a. Opportunity the Proposed System Seeks to Address The County is collaborating with the South Suburban Mayors and Managers Association (SSMMA) to implement a Network including a connection with the SmartChicago project to include County facilities within the City, that will provide a Regional solution that connects key anchor institutions and provides affordable broadband in the Region, specifically in the economically challenged and underserved areas of the County. The County's current network provides connectivity to all county offices, employees and public safety personnel who serve within the 946 square mile area comprising Cook County, with a current population of 5.3 Million residents including serving as a critical enabler of public security related support for the 127 Municipalities. The County seeks to facilitate the establishment of an advanced infrastructure with proper systems and processes that enhance the capability of this government to continue to protect and serve the citizens of Cook County. SSMMA is an intergovernmental agency providing technical assistance and joint services to 42 municipalities representing a population of just under 700,000 residents in Cook and Will Counties. SSMMA completed a two year comprehensive study of broadband connectivity across the Region establishing the primary tenets that are the foundation for the proposed Network. A broad range of connectivity needs were identified through interviews with key stakeholders. The data drawn from the research strongly indicates that broadband connectivity will have a significant impact on every school, every police department, every fire department, every hospital and clinic in every community and to the entire Region serving to strengthen each institution, offer economic development opportunities and improve the overall quality of life in the Region. b. General Description of Proposed Funded Service Areas The proposed funded areas consist of the County areas outside of the City of Chicago and portions of Will County, with a specific focus on the underserved and economically challenged areas in the south and western suburbs. c. Number of Households and Businesses Passed Suburban Cook County has a population of approximately 2.5 Million. The County/SSMMA has identified several targeted low income areas which consists of 212,960 households and 40, 554 businesses. d. Critical Anchor Institutions and Public Safety This Project is specifically focused on connecting 127 key anchor institutions in the Region including the County courthouses, hospitals/clinics, Cook and Will Sheriff locations and suburban local governments, public safety agencies, PSAPS, community colleges, universities, public/private hospitals, community health care facilities, and access to public computer sites, job training locations and vocational institutions. These locations serve as anchor institutions in the community and provide vital Regional services. e. Proposed Services and Applications for Users The Project will implement a fiber optic based broadband network infrastructure providing broadband
Ethernet connectivity to over 127 anchor institutions in the region. The network extends fiber based broadband access throughout the Region offering available and affordable broadband services to promote better education, create economic growth opportunities, improve access to healthcare and health services, and enable effective tools for public safety organizations. The Network provides the first step in establishing an infrastructure that will enable promote educational access to the Internet linking individual primary, secondary and higher education sites that, with further development, will eliminate economic and infrastructure obstacles to access. The infrastructure will serve Sheriff Departments, police departments, fire departments, fire protection districts, consolidated dispatch and PSAP sites in the region offering the bandwidth to make full use of GIS and mapping based applications for law enforcement and fire department personnel. The network provides industrial and economic development connectivity throughout the Region giving unprecedented access to business development sites and brownfield locations. The broadband network is critical to expanding the alternative energy industry linking primary research, manufacturing and production facilities across the Region and providing high capacity Internet and regional gateway services to facilitate participation in a global economy. Cook County has also been granted the Authority to provide facilities-based interexchange telecommunication services, resold local and interexchange telecommunication services and facilities-based local telecommunication services. f. Non-Discrimination and Interconnection Obligations This Project fully intends to comply with the NOFA requirements on non-discrimination and interconnection, and the FCC Broadband Policy Statement of August 5, 2005 g. Network Design The broadband connectivity system, as designed for Cook County and SSMMA, will provide fiber optic infrastructure linking 127 anchor locations across the approximately 1,100 square mile service area. The fiber-based system will distribute Gigabit based services to each of the anchor institutions and also provide for dark fiber capacity to meet the demands of the attached community colleges, Public Safety organizations, healthcare and hospital locations, and the many other public institutions across both Cook and Will Counties. The services component will offer up to full Gigabit Ethernet connectivity at every anchor institution termination point. Services can be scaled through system management, but Gigabit data speeds will be offered to each school, public safety institution or health care center as the primary data pipe capacity. The fiber system also provides fiber capacity to fully support 'open access' requirements, next generation applications such as Smart Grid systems, and offer both local and regional point to point interconnect capabilities for public sector institutions, business and industry. Key Network components include Anchor Institutions, Radio Towers, Wireless Last Mile Services, Wireline Service and Fiber Cable h. County Qualifications Cook County has an extensive leased high speed wireline and wireless network, has invested in and deployed significant in-building structural wiring and wireless networks and has the requisite organizational structure, skills and experience to successfully expand its existing infrastructure. Due to the size and scope of the project, the County/SSMMA will also utilize experienced outside professional firms to install the cable, equipments and assist with other requirements. i. Overall Infrastructure Cost The overall infrastructure cost of the proposed network is $49.3 M. Major cost components include fiber optic construction, transport and network equipment, engineering design and project management. Details are provided in the CCI Detail Budget Attachment. The Pro Forma Financials indicate that this project will generate a (-11.12%) IRR without BTOP funding, but a positive 78.13 % IRR with BTOP funding j. Overall Expected Subscriber Projections During the first year of operation (year 2) of the fiber network anchor institutions will be the primary subscriber for both fiber
and wholesale services. The 32 subscribers to dark fiber are expected to grow to more than 80 by year 8. Wholesale data subscribers from anchor institutions are anticipated at 40 for year 2 and will grow to over 120 by year 8 assuming no additional fiber installation. Last mile service provided through UrbanCom as part of the public-private partnership is focused on economically disadvantaged areas of Cook County and the SSMMA region. Expectations for this key pilot program will be 400 subscribers to be linked with voice and data services by the end of year 2 and then to grow to over 700 by year 8 assuming an additional capital investment in the last-mile service access point or area coverage. Additionally, the Network will be actively marketed to other non-profit entities and business parks near the constructed fiber path to promote economic development in Cook County and the SSMMA region. Estimated Job Creation Network costs include $49.3 M related to engineering, construction and professional services. These services could be provided by local firms to create jobs and serve as an economic stimulus to the region, while providing much needed high speed communication capabilities. Based on the methodology formulated by the Council of Economic Advisors, the Project will generate 222 direct, 121 indirect and 194 induced jobs for a total of 537 new jobs in the region.