

Broadband USA Applications Database

Applicant Name: Iowa Health System, Inc.

Project Title: Iowa Health System Broadband Extension Project

Project Type: Middle Mile

Executive Summary

a. Opportunity the proposed system seeks to address • President Obama has strongly advocated policies to lessen healthcare cost increases while at the same time improving healthcare quality. Achieving the healthcare reform goals of this Administration will require healthcare providers to have access to broadband capacity that is not available now in the healthcare sector. Iowa Health System will use BTOP funds to bring our State the broadband technology needed to deliver 21st century healthcare services to our citizens. • Making fast broadband connectivity available to healthcare providers lays the foundation for state-of-the-art telemedicine, remote diagnosis, health and patient data exchange, research, and records compliance. Healthcare providers include primary care physicians, medical facilities, community health centers, clinics and other providers, and organizations and agencies serving vulnerable populations (e.g., low-income, unemployed, and the aged). Expanding middle mile broadband infrastructure also will enable last mile broadband access to homebound patients and support more effective primary, specialty, and preventive care; result in lower cost treatment; and permit timely diagnosis of patients with chronic illnesses who cannot be moved easily. • Healthcare-related facilities such as hospitals and health clinics are “community anchor institutions” and “critical community facilities” that serve important public health and public safety goals. As then Acting FCC Chairman Copps recently recognized, “connecting healthcare providers, public health officials and first responders” to broadband networks enables them to “share crucial data during emergencies.” FCC Update On Rural HealthCare Pilot Program Initiative -Six Telehealth Projects Approved for \$46 Million in Universal Service Funds, FCC News Release (April 16, 2009) (awarding Iowa Health System \$7.8 Million for new network access connections to link statewide rural non-profit hospitals to its existing broadband healthcare network).

b. A general description of the proposed funded service areas (location, number of communities, etc.) • The multiple service areas of this Middle Mile Infrastructure project encompass geographic areas from the western border to the eastern border of Iowa, including Ames, Bettendorf, Burlington, Cedar Falls, Cedar Rapids, Clinton, Davenport, Des Moines Dubuque, Fort Dodge, Iowa City, Marshalltown, Mason City, Muscatine, Ottumwa, Sioux City, Waterloo and West Des Moines. The areas include 1,015 census blocks with a population totaling 1,260,872 (based on RUS/NTIA online mapping tool).

c. Number of households and businesses passed • This is a Middle Mile application, and IHS does not anticipate offering Last Mile Internet services directly to the general public in this Application, although an indirect Internet connection will be available to end users connected to the Middle Mile network. Based on the RUS/NTIA online mapping tool, the number of households and businesses in the service area are: i. Households: 525,341; ii. Businesses: 22,799.

d. Number of community anchor institutions, public safety entities, and critical community organizations passed and/or involved with

project (e.g., healthcare, education, libraries, etc.) • The number and kind of community anchor institutions, public safety entities, and critical community organizations passed and/or involved with project are: Physicians & Surgeons 1021 Chiropractors (DC) 417 Clinics 125 Insurance 79 Health Services 69 Podiatrists 59 Hospitals 54 Mental Health Services 17 Home Health & Healthcare Equipment 13 Laboratories-Medical 9 Other Healthcare Related 72 e. Proposed services and applications for the proposed funded service areas and users • IHS intends to further the three stated healthcare reform goals of the Obama Administration: - Advance the use of Electronic Health Records – IHS’ Middle Mile project will enable independent physicians to be “meaningful users” of Electronic Health Records (EHR) and to offer the benefits of EHR to their patients. - Improve coordination of care through the healthcare continuum - IHS’ proposed infrastructure will provide a critical element to support a healthcare delivery model of Accountable Care Organizations (ACO) to improve the patient healthcare delivery system. An ACO consists of primary care physicians, specialists, home healthcare providers and at least one hospital. The defining characteristic of ACOs is that a set of physicians and hospitals accept joint responsibility for the quality of care and the overall cost of care received by the ACO’s patients. The ability to electronically exchange information easily and rapidly is absolutely essential to the ACO functioning at a high level and limits redundant services by different providers. This lessens healthcare costs and improves patient outcomes. - Keep patients healthier and out of the hospital - IHS seeks to enable management of chronic disease in the patient’s home. This healthcare delivery goal is particularly important in less densely populated areas to allow providers to communicate with high-risk patients on a daily basis regarding their disease and care. Such communication allows providers to closely monitor all aspects of a patient’s condition. It has been demonstrated that closely monitored chronic disease patients have a lower incidence of hospitalization and a better quality of life. IHS plans to lay the foundation for such services by creating Middle Mile connectivity among key access points across the State of Iowa, especially in rural areas where the residents are 30 or more minutes away from a healthcare provider. f. Approach to addressing the non-discrimination and interconnection obligations • IHS commits to the non-discrimination and interconnection obligations specified in Section V.C.2.c of the NOFA. IHS intends to offer managed services, such as telemedicine, which use private network connections to provide enhanced quality of service, increased security and reliability rather than traversing the public Internet. IHS is not a common carrier or carrier of last resort offering residential broadband services to the general public. Nevertheless, participating end users will have unfettered direct access to any lawful applications on the Internet, on a nondiscriminatory basis, in compliance with the FCC rules and policies. g. Type of broadband system that will be deployed (network type and technology standard) • IHS 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 the applicant that demonstrate the ability to implement and operate a broadband infrastructure, and/or be a sustainable broadband service provider • IHS is Iowa’s first and largest integrated healthcare system with 11 hospitals and 128 clinics in 63 communities in Iowa, western Nebraska, and eastern Illinois. • Investing its own funds, IHS already has established and currently operates its wholly-owned, purpose-built, 2,170 route-mile fiber optic network. This network is already operational for IHS’ system-wide internal traffic and provides a variety of data transmission services among IHS facilities. IHS’ substantial investment in this fiber network greatly enhances the feasibility and viability of IHS to deploy

extensions to this network to additional healthcare facilities and other entities in underserved areas. IHS also has extended its network to Chicago and Denver for interconnection with Internet2 and/or NLR, as well as connecting to other carriers at centralized (and cost efficient) carrier hotels and Points of Presence (POP) at those locations.

i. Overall infrastructure cost of the broadband system • The total cost of the proposed project is \$19,277,700.

j. Overall expected subscriber projections for the project • This application is for a Middle Mile project and a portion of the enhanced services will be made available to users through other, unaffiliated entities availing themselves of the Middle Mile project. Within the project service area, there are 1,935 healthcare-related entities, 525,341 households, and 22,799 businesses. Business entity data is based on census data by city and on data obtained using the NTIA/RUS online mapping tools, and therefore the numbers may not exactly match the census blocks included in this project.

k. Number of jobs estimated to be created or saved as a result of this project • This Middle Mile project will enable the creation of additional connectivity and, indirectly, additional jobs. IHS estimates the project will create, directly and indirectly, 800 jobs based on two recent studies that calculate 50 jobs for each million dollars invested in broadband. Information Technology and Innovation Foundation, a technology think tank, and Speed Matters, the campaign of the Communications Workers of America: “For every \$5 billion dollars invested in broadband, according to the two groups, 250,000 jobs are created, including “100,000 direct and indirect jobs from telecom and IT equipment spending plus another 150,000 in “network effects” spurring new online applications and services.” http://broadbandcensus.com/2009/07/broadband-investment-spurs-business-growth-and-job-creation-studies-find/?utm_source=BroadbandCensus.com+Latest+News&utm_campaign=effedb47ec-News_Alert_07247_24_2009&utm_medium=email