Broadband USA Applications Database

Applicant Name: NEVADA HOSPITAL ASSOCIATION

Project Title: Nevada Broadband Telemedicine Initiative

Project Type: Comprehensive Community Infrastructure

Executive Summary

The Nevada Hospital Association (NHA) consisting of 33 acute care providers and 18 specialty hospitals and clinics throughout the state of Nevada proposes to construct a state-wide medical network, the primary purpose of which is to facilitate telemedicine applications and allow for the meaningful use of electronic health records as is required under the HITECH Act enacted as part of the American Recovery and Reinvestment Act. Nevada lacks the broadband infrastructure necessary for the medical community to take full advantage of most telemedicine applications or the exchange of medical information among all health providers. All of Nevada's hospitals currently have some level of access to the internet, however, the quality of the connections varies dramatically and there is little or no reliability or redundancy. With the requirement that all medical providers demonstrate the meaningful use of electronic health records by 2016, Nevada's medical community is faced with an insurmountable obstacle unless the network proposed in this grant application can be built. The current haphazard connectivity between those who have sufficient funding and information technology resources and those who can’t afford or do not have access to a high-speed, high-capacity broadband network is likely to continue for some time. The community anchor institutions to be served by the proposed network are located throughout the state of Nevada. The service area of the network includes communities in 16 of Nevada's 17 counties. The project anticipates using existing broadband capacity where possible and deploying 10 new fiber segments offering both 100 Mb and 1 Gb of capacity to each of the targeted anchor institutions throughout the state. The NHA has titled this project the Nevada Broadband Telemedicine Initiative, (NBTI). The Nevada Hospital Association board has endorsed the application for BTOP funding and fully supports the establishment and operation of the NBTI. Members of the NHA have been partners in an existing telemedicine network using the NevadaNet since the mid-1990's. The NBTI seeks to follow in the footsteps of several other state medical networks, such as Washington State's NoaNet, which was awarded funding in Round 1. Utilizing the network of hospitals throughout the state as the platform for constructing a state-wide broadband network is a logical and efficient solution to the lack of adequate broadband service throughout the state. The applicant has worked to establish partnerships with key players throughout the state, including the Nevada System of Higher Education, the University of Nevada School of Medicine, several Native American Tribes, the Nevada Indian Health Board, the Nevada Rural Health Partners, and the Arizona Nevada Tower Corporation. The network will provide direct access for 37 community anchor institutions from among Nevada's hospitals with the potential to grow well beyond this number as other medical facilities and medical practices come on board. The NHA has secured letters from several public safety entities who also wish to utilize the middle mile network NBTI will provide. The NHA has reached out to all the Native American Tribes...
through a partnership with the Nevada Indian Health board to offer access to the network for the 23 tribes and their affiliated health facilities scattered throughout the state. Through NBTI's partnership with the University of Nevada School of Medicine and the Nevada Department of Higher Education, the network to be constructed will allow several community colleges and units of the Nevada University system broadband access to areas currently underserved. By focusing on the state's acute care medical providers, the NBTI project will serve some of the most vulnerable populations in the state. Through a partnership with the Indian Health Board the project will improve access to medical care on reservations such as the Duckwater Shoshone in remote central Nevada. Key partners in our network include Renown Regional Medical Center in Reno and the University Medical Center in Las Vegas, a non-profit publicly owned hospital. UMC is the number one provider of medical services to the poor and uninsured in the state of Nevada. Renown Regional Medical Center in Reno also serves a large proportion of uninsured, poor and disadvantaged clients. The NHA will own and manage the network and provide service to health facilities in a manner that will provide the maximum level of data security and network reliability. As the owner and operator of the NBTI, the Nevada Hospital Association will determine the terms of use by its members and outside entities who desire access. The NHA has received a letter of interest from Axia Netmedia Corporation to provide funding for the initial construction of the network and to serve as the network operator. Axia has the depth of experience and financial stability necessary to guide the construction and operation of the network and establish the business functions necessary for a sustainable operation. A key component to financial success of the network will be the on-going wholesale leasing of excess capacity by Axia. The NHA is made up of both public and private institutions some of whom have made considerable investments in broadband technology. The application anticipates using this existing infrastructure to complete components of the network. Nevada's existing network does not offer last mile fiber connectivity to the rural hospitals that will be participating in the NBTI. The NBTI project will provide a direct link to the existing NevadNet middle mile network. In communities such as Lovelock, Winnemucca, and Battle Mountain hospitals that currently rely on limited connectivity (Battle Mountain currently has 10Mb) will have 24/7 access to the NBTI 1 Gb network. This will be made possible through a partnership with the Nevada System of Higher Education and the University of Nevada School of Medicine. In areas where no fiber middle mile currently exists, such as Pahrump, Fallon, Hawthorne, Yerington and Gardnerville, the Nevada System of Higher Education will utilize middle mile fiber that will be built by the NBTI. Through a partnership with Arizona Nevada Tower Corporation high speed access will reach areas where a fiber build is not practical, such as Caliente, Nevada and the Duckwater Shoshone Tribe in central Nevada. The cost of the project is $29.7 million to provide a semi-dedicated Healthcare Network, with enhanced security and increased capacity, in addition to a proposed new middle mile 48-count Fiber Optic cable that will be used for dedicated Nevada Healthcare participants and their sponsored partners. The approach is to light dark fiber as required for the existing locations that have alternative last mile connections and expand the fiber to reach those rural areas where alternative high speed data may not be available. The project includes a bundled Electronic Health Records solution for the NHA members who have been unable to invest in their own EMR systems. Through use of a bundled application package NHA anticipates lower costs to member hospitals while generating operating income through the management fees charged to users of the system. This functionality is essential for success of the HITECH Act for meaningful use of electronic health records. The NBTI network will reach 6 communities that do not currently have access to a
middle mile high speed broadband network: Pahrump, Boulder City, Fallon, Hawthorne, Yerington and Gardnerville. The long term viability of the network is dependent on the ability to connect to last mile providers in these communities and generate wholesale fees. NBTI has acquired letters of interest from last mile providers in several of these communities. NHA's partner, Axia will manage the wholesale operations, the revenue of which will provide a return on their investment and assist in covering operational costs. The NHA believes that an investment in a state-wide medical network will help sustain and create jobs in one of the nation's hardest hit economies. Nevada and Clark County in particular has been severely impacted by the recent recession. Unemployment rates have exceeded 18% in some areas, with the state-wide average now at 13.2%. The health sector in Nevada employed 94,070 individuals living in the state of Nevada in 2007. As one of the largest employment sectors in the state, the infusion of millions of dollars of investment should result in much needed job growth. Nevada's construction industry has been hit the hardest by the recession. We anticipate creating construction jobs in some of the hardest hit areas through the deployment of fiber plant in Douglas, Lyon, Mineral, Nye and Clark Counties. We estimate 103 direct jobs, 103 indirect jobs and 116 jobs induced. The NBTI of the Nevada Hospital Association is designed to meet all the major objectives of the BTOP grant.