The very rural nature of many large areas of Louisiana presents formidable obstacles to potential broadband service providers. The U. S. Census Bureau reports that only 42.9 % of Louisiana homes have Internet Broadband Access, ranking the State in the bottom 20% of the nation. At the bottom tier of that 20% are Louisiana's very rural communities, which were also the last in the nation to receive basic telephone service. That modern day life necessity was not delivered 30 or even 20 years age; it was in 2005. Currently, there is no broadband provide to provide a Comprehensive Community Infrastructure connectivity in the 7 parishes that are the focus of this application's proposed project. Nexus Systems, Inc., a for profit company, in partnership with the Louisiana Board of Regents, a public agency, is submitting a comprehensive community infrastructure project on behalf of vulnerable rural underserved and unserved populations in 7 'Piney Hill Parishes' along Hwy. 167 in North Central Louisiana. The proposed fiber route will start in Alexandria LA and go up Hwy. 167 through Grant, Winn, Jackson and Lincoln Parishes where vendor partner towers will extend service to 3 other 'Piney Hills' Parishes, Union, Claiborne and Bienville, with 300 MBits licensed band microwave links. Parishes include 45 incorporated towns, 177 census designated places and 76 other pop. places. Ruston, in Lincoln Parish, is the largest incorporated town with a pop. of 20,546. The other 6 rural parish seats have an avg. pop. of 3,660. The total pop. is 148,904. This project encompasses 55,562 households, 1,820 businesses, 331 anchor institutions, public safety entities, and critical community organizations.. Proposed services include a 144 count fiber link from Alexandria LA to Grambling, LA. The objective is to provide interconnection at local school board offices. Vendors will extend broadband service via fiber or microwave to the proposed funded service areas and users. The services will be very high speed IP-based transport services along the route with multiple egress points to the Internet. Nexus will provide transport only, transport and Internet portal, or comprehensive managed service as desired by the user. Nexus will target critical agencies for direct service and will partner with the LONI State network and other peering providers at handoff points. The project will tie into existing Nexus microwave towers to extend services further off Hwy 167 into unserved areas. Nexus microwave will be utilized specifically for extension of services to Union, Claiborne, and Bienville parishes Non-discrimination and interconnection obligations, as it relates to connectivity to the public Internet and physical interconnection for the exchange of traffic, will be addressed through adherence to the non-discrimination requirements and the interconnection requirements identified in the NOFA; by displaying interconnection policies and nondiscrimination practices prominently on the service provider web page, and by notifying customers of any changes to these policies: by committing to offer wholesale access to the fiber network components at reasonable rates and terms; by committing to binding private arbitration of disputes concerning interconnection
obligations; and by implementing management practices to block access to illegal or harmful content. The broadband technology will be a 144 count fiber running up Hwy. 167 with an initial capacity of 40 GBit Ethernet/IP. The equipment design will allow expansion of the backbone in 10 GBit increments as required. Upgrades can be done by chassis card addition or by DWDM fiber 'color' breakout where 400 GBits can be transported on a single fiber. Internet egress points will be in Lincoln Parish where it will connect to the LONI network at 10 GBits and in Alexandria, which is also an interconnection to the LONI State network and it will tie into the funded Round 1 BTOP Middle-Mile LA Broadband Alliance-Infrastructure Project submitted by the LA Board of Regents and other regional providers, Skyrider and DeTel Wireless. Breakout fiber access will be available at intervals along the route, allowing last mile providers the opportunity to reach all segments of the populations. The applicant has demonstrated that the company posses the traits needed to be a sustainable broadband service provider. Nexus systems has been providing high speed Internet services for over 10 years and already serves the school districts in 86% of the affected area with over 5000 active users on the network. The company has constructed and operates over 120 microwave towers utilizing very high speed Dragonwave licensed band transmission services for schools, universities, public safety agencies, local governments, fire and police departments, medical services, local businesses, and residents. The company is very active in fiber as an aggregation tool linking distant towers together. It employs in-house fiber construction crews and in-house tower construction crews. Nexus just completed construction of a 192 count fiber ring around the local City of Ruston in a joint partnership with the city. The working management of the company is also the original founding owners, each with over 25 years experience in the technology arena. Overall infrastructure cost of the broadband system is $9,343,983 in grant funds with $3,180,600 in capital and in-kind matching funds. Overall number of expected subscribers for the project is in excess of 150 anchor institutions and businesses, and many thousands of households drawn from a pool of 1,850 businesses, 55,562 households, 331 anchor institutions that include 79 public, private and charter schools, 18 public libraries, 25 medical service entities, 3 two-year colleges, 86 public safety agencies, 2 four year universities (1 historically black) and 35 community support organizations. The jobs estimated to be created or saved as a result of this project is the greatest opportunity provided by the program. Based on information from the industry, we expect over 250 direct and indirect jobs to be created by initial construction and ongoing support of the network. Economic development is tied to the availability of high speed Internet access. This project will extend opportunities in the 7 targeted parishes that have an unemployment rate ranging from 10.5% to 8.6%. The long term job impact from this project will be in excess of 4,000 jobs.