Executive Summary

PROBLEM STATEMENT This project will directly impact persistent poverty populations. All 12 counties meet the Public Works and Economic Development Act (1965) definition of Economically Distressed Area for per capita income and unemployment rate criteria. Stakeholders representing 80 public/private sector entities identified the region's broadband priorities. Four themes emerged: cost/availability are obstacles to access; last mile providers face high costs/limited bandwidth in rural areas; a focus on long-term and sustainable solutions such as interoperability, carrier-grade materials, and an overall master plan are critical; and time is of the essence. Long-term economic viability relies on an educated workforce and infrastructure capable of meeting future demands. A lack of robust infrastructure is associated with economic underperformance. Less than 40% of the region's households subscribe to broadband. Residential broadband is available in some cities, but tapers in rural areas. The area boasts 106 K-12 institutions with close to 65,000 students. Limited broadband availability in the schools is often coupled with a lack of availability at home. As classrooms rely more heavily on Internet-based learning, this population will fall further behind their peers. In short, CSRA Fibernet Cooperative, Inc. (Fibernet), a public/private non-profit, will build and operate a Middle Mile fiber optic ring designed to mitigate problems at 392 anchor institutions associated with either a lack of broadband altogether or bandwidth connectivity issues that hamper efficiency and work flow. The project will focus on meeting community institutions' broadband needs. Fibernet's membership will include key public and private partners. Public partners include the CSRA Unified Development Authority (13 county joint development authority), Paine College (historically black college lending NOC facilities), and the CSRA Regional Commission (representing 13 counties and 39 cities). Private partners include U.S. Carrier (a carrier's carrier and middle mile operator) and Advanced Technology Group (an existing middle mile and last mile provider). PROPOSED SERVICE AREA The project covers 12 counties and 37 cities in east central Georgia. Larger than Connecticut, Delaware and Rhode Island, it is one of the largest political regions in Georgia. It boasts the second largest city in Georgia, Augusta-Richmond County. The region's geographic and demographic eccentricities make it an ideal microcosm of Georgia, where projects can be tested and replicated statewide. HOUSEHOLD/BUSINESS DATA The project will pass 123,923 households and 12,931 businesses in both rural and urban settings. In aggregate, 60.2% of households do not subscribe to broadband. In rural areas, businesses must find creative ways to cope with limited or nonexistent bandwidth. Fibernet expects to mitigate these issues through its open access system. COMMUNITY ANCHOR INSTITUTIONS The region has 392 anchor institutions. The network will provide broadband access to the majority of the community anchor institutions including 106 K-12 schools, 7 colleges and universities, 16 hospitals and clinics, 155 public safety facilities, and 21 libraries. SERVICE APPLICATIONS
Fibernet will operate a neutral middle mile backbone with lit/unlit services which will provide DWDM wavelength and Metro-Ethernet services available on a wholesale basis for all qualified entities to utilize. Fibernet’s core users will be anchor institutions that subsist on limited broadband or dial up services. Service fiber will consist of lateral fiber runs that will connect businesses, hospitals and health centers, Colleges, schools, libraries, fire stations, parks, municipal sites, and third-party Internet service providers. Last mile broadband service providers will reach underserved residents and business. To encourage last mile service, Fibernet will sell bandwidth at a 50% discount to all service providers, independent of company size and/or quantity of bandwidth purchased.

NONDISCRIMINATION/INTERCONNECTION APPROACH Fibernet will adhere to open access and network neutrality requirements. Fibernet will comply with the NTIA NOFA, as well as the FCC Broadband Policy Statement of August 5, 2005 defined by the principles in FCC 05-151. Fibernet is partnering with US Carrier, a carrier’s carrier, who has no conflicts of interest in abiding by such policies. Fibernet will ensure that customers will have the ability to access lawful content of their choice; run applications and services of their choice; connect their choice of harmless legal devices; have competition among network, application, and service providers; and not favor any lawful applications or content over others. Interoperability with other networks will be managed to allow for both wholesale and retail use of the network facilities on a wholesale basis to existing or future service providers, so that they can offer new services to businesses, institutions, and residences. NETWORK TYPE/TECHNOLOGY The project will result in construction of 373 miles of new fiber and include 274 miles of leased fiber. The network is primarily a fiber optic core backbone, fiber service laterals, core co-location facilities, and service cabinet points-of-presence. The backbone will include new deployment, in-kind and IRU agreements, and new fiber construction to create a region-wide redundant fiber ring. The core will interconnect 26 point of presence sites located in primary towns. The core will interconnect in downtown Augusta where high capacity WDM circuits will connect the network to the TELX Internet Exchange Facility at 55/56 Marietta Street in Atlanta. Service fiber will consist of lateral fiber runs that connect businesses, hospitals and health centers, colleges, schools, libraries, fire stations, parks, municipal sites, and third-party Internet service providers. Dense Wave Division Multiplexing (DWDM) technology has been selected to provide the scalability required in offering 100Mbps to 1Gbps Metro Ethernet data services to key anchor institutions, as well as the ability to offer up to 10 Gbps transport services to larger customers such as Internet Service Providers and large commercial customers. APPLICANT QUALIFICATIONS While Fibernet is a new organization, its members and partners are highly experienced in broadband operations and project management. Fibernet was created specifically to leverage each partner’s expertise. US Carrier, known as the Southeast’s Choice for Wholesale Long-Haul Fiber Optic Transport, will provide Network Operations Center services for the project and a 1 Gbps connection to the 56 Marietta TELX facility in Atlanta. US Carrier’s network customers include CLEC and wireless carriers, local Internet service providers, local municipalities, state government agencies, incumbent local exchange carriers, cable companies, content delivery companies, VOIP, IPTV, and TV broadcasters. ATG, an existing middle mile service provider, will provide equipment and services. ATG has distinguished itself as a rural operator who provides services to customers who are typically too remote for high bandwidth services from incumbent operators. Wilkes Telephone, an ILEC operator in 3 counties, will provide facilities, sales, and support services in its exchange. Wilkes Telephone was founded in 1939 and has developed highly advanced telecommunication services including FTTH. The CSRA Regional Commission (RC) is a public
sector, non-profit planning and development agency serving 13 counties and. The RC is the federally designated Economic Development District (EDD), conducts project management for a variety of state/federal programs, and typically oversees approximately $40M annually in federal and state grant funds. The RC will leverage its expertise by serving as Fibernet's fiscal agent and grant administration project manager. Civitium, a leading engineering and technology consultant lent its expertise in the engineering and design of the network. They will serve as project manager throughout implementation. Local government information technology experts will also be available and will assist with a variety of project implementation activities. PROJECT COSTS Total project cost is $59,804,789 and broken down as follows: $9,953,879 in network & access equipment, $32,355,401 in outside plan, $7,075,608 in buildings and land, $750,000 in customer premise equipment, $700,000 in billing and operational support systems, $605,000 in operating equipment, and $8,364,900 in engineering/professional services. The federal share is 76.25% and local match totals 23.75%. JOB CREATION/RETENTION The project will create 70 direct new jobs. An additional 75 indirect (i.e. construction, spin-off, suppliers, etc) and 81 induced jobs are expected. Based on BTOP's methodology, Fibernet will create 681 total job years.