Applicant Name: APPALACHIAN VALLEY FIBER NETWORK

Project Title: Appalachian Valley Fiber Network ("AVFN")

Project Type: Comprehensive Community Infrastructure

_______________________ Executive Summary _____________________

The Opportunity & the Challenge
The lower Appalachian Valley is a historically impoverished area, lagging behind the rest of the country in such areas as education, healthcare, delivery of public services & job creation. During the past decade, the economy of the lower Appalachian valley was decimated by job losses in the manufacturing sector. In this primarily rural part of the country, unemployment is above the national average. For northwestern Georgia & eastern Alabama, the path towards economic recovery lies in providing a world-class infrastructure that will improve quality of life, thereby attracting new employers & fostering growth of small businesses. Providing affordable access to high-quality broadband is an important part of the solution to these long-term regional problems. Appalachian Valley Fiber Network (AVFN) is a unique public/private partnership spanning two states that is committed to expanding & enhancing existing middle-mile fiber optic infrastructure. Building on the recommendations of a 2009 study conducted by the Georgia Tech Enterprise Innovation Institute, AVFN joins with the Northwest Georgia Regional Commission, the Northwest Georgia Joint Development Authority, the Alabama Broadband Initiative, the East Alabama Regional Planning & Development Commission, Floyd County, Citizens for a Digital Future, Georgia Institute of Technology & Trenton Telephone Company to provide high-capacity broadband throughout the proposed service area. AVFN member, Parker Systems/Fibernet (Parker), now provides middle & last mile service in the northwest Georgia portion of the proposed service area. Regional last-mile providers have agreed to subscribe to AVFN middle-mile service so community anchor institutions & businesses will be able to readily access the high-capacity broadband needed to support the widest possible variety of applications. Interest in AVFN's proposed middle mile service is strong, with 185 community anchor institutions expressing need for the broadband service. The opportunity presented by this public/private collaboration with an existing broadband provider translates into connecting the entire proposed service area to global broadband access. 

Service Area
The proposed service area is comprised of nine counties in Georgia (Bartow, Chattooga, Dade, Floyd, Gordon, Haralson, Paulding, Polk & Walker) & three counties in Alabama (Calhoun, Clay & Cleburne). The proposed service area totals 2,653 square miles, with a combined population of 383,859. The largest city in the GA segment is Rome, population 34,980. The largest city in the AL segment is Anniston, population 24,276. The area as a whole is primarily rural. The 24-month unemployment average is 8.61%. Broadband penetration is approximately 50.5% of households. Cable modem, tailored to residential rather than high-capacity institutional use, is the primary broadband source. Other types of available broadband are DSL & Ethernet, which lack speed & flexibility to support many applications. Households & Businesses Passed The proposed middle-mile service will be proximate to 144,082 households & 8,327 businesses. AVFN can reach these subscribers through its last-mile
service provider customers. Community Anchor Institutions 185 community anchor institutions have expressed interest in AVFN's enhanced broadband services. Specifically, 16 schools (k-12), 11 libraries, 40 healthcare providers, 47 public safety entities, 4 community colleges, 5 institutes of higher learning, 15 community support organizations & 49 government facilities will benefit from AVFN's proposed services. Floyd County will also integrate AVFN fiber into its public safety backhaul network & initiate a regional broadband project linking 911 centers. Proposed Services & Applications AVFN will offer expanded & enhanced broadband connections for community anchor institutions & businesses to access new &/or improved services. Among the proposed services & applications are state-of-the-art telem medicine, e-government, distance learning & business-grade broadband. The Georgia Tech Enterprise Innovation Institute created for AVFN the Success in Education & Economic Development (SEED) program. SEED is a tele-mentoring program aimed at high school & community college students to provide economic opportunity. Nondiscrimination & Interconnection Obligations AVFN commits to (1) adhere to the principles contained in the FCC's Internet Policy Statement or any subsequent ruling/statement; (2) not favor any lawful Internet applications & content over others; (3) display any network management policies in a prominent location on its Web page & provide notice to customers of changes; (4) connect to the public Internet directly or indirectly, such that the project is not a closed network; & (5) offer interconnections, where technically feasible without exceeding current or reasonably expected capacity limitations, at reasonable rates & terms to be negotiated with requesting parties. This includes both the ability to connect to the public Internet & physical interconnection for traffic exchange. Type of Broadband System to be Deployed AVFN will build a middle-mile fiber optic broadband network that expands the infrastructure of a pre-existing middle-mile network owned by Parker. The network will consist of a fiber ring spanning the Georgia portion of the network, seven nodes located in the most populous areas & terminal points in Atlanta & Chattanooga. The nodes will be supplemented by POPs and SPOPs to satisfy demand for connectivity. Additional network redundancies & bandwidth will be created through three sub-loops. An existing data center in Rome will become a fiber hotel/collocation facility for northwest Georgia & northeast Alabama. AVFN will use SONET connectivity & Wave Division Multiplexing. Border Gateway Protocol will be the core Internet product, peered with multiple tier 1 Internet providers. Telephony will be supported by three independent switch providers & multiple connections to AT&T. These technology solutions promote extremely high speed, scalable & dependable broadband. AVFN also provides for future expansion and network security. With a regional data center in Rome interconnected to facilities in Atlanta and Chicago, there is back up in the event of system failure. The build into Alabama provides a major step towards interconnection with Birmingham, which then links to Central and South America. Qualifications of Applicant AVFN LLC is an alliance of Blue Streak Cable & Telecommunications (Blue Streak) & Parker. Blue Streak was formed when two leaders in their respective fields decided to combine resources to create a national leader in telecommunications. Founded in 1936, Beauchamp Construction Co., Inc. (BCC) has a decorated & trusted reputation as a proven industry leader. BCC has been a premier commercial construction company for decades. From its roots in Washington D.C., to its current home base in Coral Gables, Florida, BCC brings financial strength (over $200M in bonding capacity), extensive government contracting experience & skilled managers to the partnership. Cable Connections & Utilities (CCU), was founded in 1985 as a provider of cable infrastructure. CCU is a leading contractor for, among others, Comcast, A.T.& T, the Department of Defense, Level 3 and Sprint. CCU has installed 3,200+ miles of
aerial & 8,500+ miles of broadband fiber. Parker was founded in 1985 by David Parker & is a leading broadband technology provider in northwest Georgia. Parker received its CLEC & OCC status in 1998. Parker has installed 2,000+ miles of fiber & 700+ miles of aerial. Combining the financial & institutional power of Blue Streak with the intimate local knowledge of Parker Systems gives AVFN complete confidence it can deliver results. Parker’s long-term experience as a regional broadband operator provides a sound basis for long-term network sustainability. Overall Infrastructure Cost Construction of system infrastructure will involve installation of 960,701 feet of cable & ducts, 72,072 feet of aerial, 200 hand holes, plus boring, trenching & splicing. Materials & labor costs are estimated at $17,702,862.00. Subscriber Projections AVFN is providing a middle-mile only service. AVFN subscribers will thus be last-mile & middle-mile providers. While community anchor institutions have already expressed interest in benefiting from AVFN, access will come through a last-mile provider. Note that AVFN member Parker is also a last-mile provider & will be an AVFN subscriber. By the end of year 8, AVFN projects that it will serve 19 subscribers. Number of Jobs Created or Saved Relying on the Council of Economic Advisors formula, we estimate creation of 75 direct jobs, 74 indirect jobs & 83 induced jobs.