Broadband USA Applications Database

**Applicant Name:** ATLANTA BOARD OF EDUCATION

**Project Title:** Atlanta Broadband Access Connections for Kids, Parents Advancement & Knowledge Atlanta BACK PAK

**Project Type:** Comprehensive Community Infrastructure

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**Executive Summary**

As documented by study after study, including the FCC's recent National Broadband Plan calling for a national network of anchor institutions at 1 Gbps, broadband has become an integral component in the operations of schools and government. Despite these documented needs, many times schools and governments lack the resources to obtain the necessary broadband capacity. Worse, there are times that schools and local governments must refrain from expanding current services because they lack access to the types of speed at any price or they cannot rely upon the integrity of the services or service providers in their area. Atlanta's Broadband Access Connections for Kids, Parents, Advancement and Knowledge [BACK PACK] is the joint response to these challenges by the City of Atlanta and the Atlanta Public School System. Atlanta's BACK PAK, a project to construct a broadband network connecting 140 APS and City facilities, will allow APS and the City to utilize funds currently devoted to paying a third party for broadband connections, for other important technology programs, public safety programs, education and instructional materials, and upgrading other City services. The cost savings associated with owning the network will allow the partners to provide services or programs utilizing broadband that they might not otherwise have provided due to the fact that the partners would have to pay fees to a commercial provider. In addition, the ability to control enhancements and upgrades to the proposed network will encourage innovation by the partners that might not otherwise occur for a network operated and maintained by a commercial provider. For example, certain upgrades or enhancements of the network that would provide new or additional services to students or the public might not necessarily be profitable for a commercial provider, but would obviously benefit the partners' constituents; if the partners own the network they could make the upgrades or enhancements regardless of the profitability of the upgrade or enhancement. Because the partners do not own the current broadband network on which they rely, the reliability of the current network is beyond their control. For example one type of outage is a fiber cut outage, while the current SLA is 24 hours, repair times routinely last beyond the service repair deadlines. Another type of outage is unscheduled changes that occur in the service providers central offices. The root causes for these outages are normally communicated as being unknown. They impact a set of schools for two or more hours during an instructional day. Owning the network will give the partners control over the maintenance and repair of the broadband network and allow the partners to address system outages in a more timely manner. In addition, nearly 53% of the City's population does not have broadband access at home. A substantial portion of that 53% lack the financial means to obtain broadband access at home. These residents must obtain their broadband access at either public computer centers (PCCs), schools (if they are a student),
or at Internet cafes. This project, by lowering the City and APS's cost to provide broadband access, will ensure that the City and APS can continue to offer free broadband access to those residents. The Atlanta Public Schools is located in the heart of Georgia's capital city, and is one of the primary education agents for the city's 5,207,180 metropolitan residents. The Atlanta Public School (APS) system supports 55 elementary schools, 14 middle schools, 2 single gender academies (grades 6-12), 20 high schools (located on 11 campus complexes), 9 charter schools, and 3 non-traditional programs that serve a student population of approximately 49,000. The district's students are primarily African American (81%) and the vast majority (78%) is eligible for the federal Free and Reduced Lunch (FRL) Program. The US Census, for 2007, estimates that of the 81,872 children, aged 5 through 17 and living within the City of Atlanta, almost 30% are living in poverty. According to the National Technologies and Information Administration's Current Population Survey (CPS) more than 61% of households in poverty do not have access to broadband in their homes. Against the backdrop of Atlanta, a corporate center for transportation, finance, entertainment and higher education the Atlanta Public Schools is morally obligated and deeply committed to educating all of its children and by extension its families, ensuring that each one is prepared to contribute to the global and technologically sophisticated economy of the 21st century. The 35 PCCs, 103 public schools; 2 public safety buildings and other City and APS buildings that are to be connected by the proposed project are located throughout the City of Atlanta; the proposed funded service area is the entire City of Atlanta. The partners will construct a jointly owned and maintained carrier-class optical network for the two organizations. The partners will provide all Data transport services for the Local and Wide Area Network (LAN/WAN), Telephony Voice (VoIP), Cable TV (News, Weather, Educational Programs), Distance Learning (Remote Classrooms), Electronic Learning (Online Courseware), Parental Involvement (Internet Access, Bus Routes, Adult Learning), Georgia State Preparatory Testing (ACT/SAT) and Network Operations Center (Network Support). The network will connect 59 Elementary Schools, 16 Middle Schools, 14 High Schools, 1 Adult Learning School, 5 APS Administrative Locations, 35 City of Atlanta Centers of Hope and 4 City of Atlanta Administrative Locations. The number of community anchor institutions passed and/or involved with this project will be 140 to start. There are numerous other anchor institutions, including community colleges, health care providers and public safety providers, which are located close to the BACK PAK that will be eligible for connection to the network once established. The partners are also committed to meeting any and all obligations with regard to nondiscrimination and interconnection and pledged to develop all necessary policies, guidelines and procedures to necessary to meet that commitment. The network will be an open architecture fiber ring network with single mode fiber network that will support 10g bandwidth application for data, voice, video and security. Both APS and the City have broad experience with projects of similar complexity and scope. Some examples of projects completed by APS and the City include: ' 2007-2009 $15,000,000 80 Schools; Cable Plant and Network Equipment refresh and upgrade of LAN / WAN Data, Voice, and Video Infrastructure ' 2006-2009 $10,000,000 Current APS CIO Dave Williamson managed the integration and migration of an open architecture fiber optic ring network for Boulder, CO Schools System. ' 2005-2006 $7,000,000 City Of Atlanta completed the upgrade and refresh of City Hall Data and Voice Cable Plant and Local Area Network Infrastructure. Wide Area Connectivity Fiber Cable Plant to Atlanta Correction Building and Municipal Courts ' 2008-2009 $12,000,000 City Of Atlanta completed a new installation of the Cable Plant and Equipment for WAN /LAN Data, Voice, Video, & Security for the Public Safety Administration Buildings (PS Headquarter, E911 Operation, and
PS Annex Buildings) The overall infrastructure cost of the broadband system is $39,520,197.00. In addition to the 140 buildings included in the network, the partners expect that all nine of the City's Charter Schools will seek connection to the proposed broadband network and reap not only instructional benefits, but financial benefits as well. The partners estimate that the project will create an additional 429 jobs (direct, indirect and induced).