Broadband USA Applications Database

Applicant Name:  UNION COUNTY BOARD OF EDUCATION

Project Title:  UCPS TEAM 21 Educational Technology Program

Project Type:  Sustainable Broadband Adoption

_______________________ Executive Summary _________________________

The vision for the Union County Public Schools (UCPS), in collaborative efforts with UCPS TEAM 21 Educational Technology Program, aligned with our Strategic Plan and Technology Plan, is to focus on Preparing all Students to Succeed (PSS). Success in the 21st century is difficult to define and during the challenges that the economic conditions presents but it continues to be an unpredictable moving target. Although the technology will change, one constant in defining success will be the importance of collaboration and communication among all stakeholders. A strong collaborative foundation has long been part of the strength of Union County Public Schools and will continue as we prepare our students to be globally competitive. This must include building a community of administrators and teachers who will be willing and able to create a classroom environment allowing students to reach their greatest potential. These uncertainties that are inherent with technology and the economic conditions present today a greater need to use our technologies much more effectively and efficiently. The focus on the UCPS TEAM 21 Educational Technology Program (UCPS TEAM 21) will develop greater efficiencies with these particular technologies and, in particular, increased use of broadband technologies. The TEAM 21, with alignment with all strategies throughout the district, 21st Century professionals are trained to work in the Union County Public Schools who will demonstrate the infusion of technology into the Standard Course of Study and create learner-centered classrooms where technology is a tool for instruction and learning. Elements of the project will include the purchase of equipment and the participation in training for technology infusion, learner-centered vs. teacher-centered environments, and the impact of technology on student learning. UCPS TEAM 21 Educational Technology Program will provide the necessary framework to increase broadband utilization and provide mass distribution of the educational content. Eight elementary schools out of the 53 in the school district have been chosen as a high priority. These schools currently have a deficiency of useful technologies. The proposed solution to adequately provide the proper resources to each classroom would contain: The purchase of an interactive board, teacher laptop, document camera, mobile teaching cart, digital video camera, digital camera, computer carrying case, keyboard and mouse, interactive voting devices and miscellaneous memory cards and cables. The use of the mobile wireless internet-enabled cart allows for true mobility to be customized for each student, classroom, and school. The wireless internet capabilities further extend the broadband platform for various educational tools and technology enriched content to be propagated to each student. A pilot is currently being conducted at nearly 100 Middle and High School classrooms in testing the effectiveness of the program. The real-time data concludes that this approach is proving to a wise choice of educating. The eight elementary schools selected are Title I schools and have poverty levels in the range of at least 51% and in excess of 92%. These schools also have high
minority population percentages consisting of Black, Hispanic, Asian, Native Americans as well as high concentrations of low income and English as Second Language support services. More than half of these schools are in very rural settings. The UCPS TEAM 21 will extend these specific services to at least 4636 students and further extend these services to teaching and administrative staff. These students are in greater need since many come from low income households that do not have functional computers or internet connectivity in their homes. The personalized educational content through the UCPS TEAM 21 will provide a very positive long-term impact on the schools district and surrounding communities as a result. In recent years, Union County Public schools has applied for and received the 21st Century Community Learning Center Grant but unfortunately due to expire. These grant funds are to assist schools to provide before school, after-school, and summer services through the establishment of 21st Century Community Learning Center programs (21st CCLC). The purpose of the program is to establish 21st CCLC programs that provide students with academic enrichment opportunities along with activities designed to complement the students' regular academic program. The 21st CCLC must also offer families of participating students educational development opportunities. Centers provide a range of high-quality services to support student learning and development. These services include but are not limited to tutoring and mentoring, homework assistance, academic technology enrichment (hands-on science or technology programs) community service opportunities, music, art, sports, and cultural activities. Centers also provide safe environments for students during non-school hours. Last year the 21st CCLC/FROGS program, we served the following sites: three elementary are of the eight. Our end year assessments show that we have gains from 45% to 75% in reading and math scores. Efforts are under way by government entities in Union County such as the City of Monroe to start-up local government controlled broadband service provision to its residents. The school system is monitoring Monroe's efforts towards this goal as a partnership is desired to provide students who reside in the city access to this broadband to connect to the school system either by fiber hand-off at each home or via 4G connectivity through a planned wireless mesh around Monroe to compliment the fiber lines. It is hoped that business will recognize the skills of UCPS students related to 21st century skills and be attracted to Union County for the purpose of setting up and locating businesses due to the educational offerings of the school system. In addition, the management team responsible for oversight of this project would be the Executive Director, Associate Director and the Lead Instructional Technology Specialist for Union County Public Schools. As individuals, each has experience in successfully leading projects of similar nature. Dr. David Kafitz, Executive Director of Technology Services, has held this position for 9 months. In this role, he has overseen the restructuring of the school system network from the ground up in 60 plus locations served by the school system. At the same time, Dr. Kafitz is coordinating the work of staff to successfully implement the third system cohort of thirty one (31) Team 21 teachers, one from each of the system's elementary schools. Mr. Mattison has served in his role as Associate Director of Technology Services for nine (9) years. During this time, Mr. Mattison has served as the lead technical person developing the school system network, including the equipping of schools in a manner as prescribed in the requested grant. Ms. Susie Austin, Lead Instructional Technology Specialist for Union Count Public Schools, is newly hired to this position. Her previous experience has given her expertise in developing and coordinating staff development for system level projects in her former school system. Union County, being one of the fastest growing counties in North Carolina and the nation, has the need for qualified teachers and support staff, since this growth has been steady for the
last 15 years. The current economic conditions have impacted our budgets in that the slowing of our processes in bringing on new employees has been greatly reduced. The UCPS district has also made enormous cuts to construction, technology, staffing, and other budgetary reductions with every appropriation. Like many other organizations we have had to make due with less. This propagated the need for well coordinated and collaborative efforts with Board of Education members, UCPS staff at the highest levels, and the representatives with North Carolina State to minimize job reduction if possible. Given this, UCPS have had to review every facet and all aspects for efficiencies wherever possible, and to look at numerous venues of increasing staff for the school system's growing needs. The requested funds from the BTOP Sustainable Broadband Adoption Program will clearly stabilize the UCPS educational technology needs with respect to broadband proliferation in the eight schools and classrooms in the short-term and, in many respects, long-term solutions as well. The overall cost of the proposed project is $2,400,000. This is comprised of a 20 percent match of $480,000 and a federal funding request of $1,920,000. The UCPS is not a wealthy school system by any means and, in particular, the eight elementary schools are in demographic areas that fall well below the national poverty level.