Executive Summary

a) A statement of the problem or need your project addresses with regard to improving broadband service adoption rates. A critical role of education has always been to prepare students for success. With the advent of the Information and Digital Age, educational approaches need to evolve to meet the way society is structured. Online schooling, whether it is primary or supplemental, has become one of the most effective ways to reach students and parents. However, the benefits of this approach are severely diminished when a steep technological divide exists between students who have broadband service available and those who do not. This is the 'Digital Divide' the rift that continues to grow between those who have digital learning tools at their disposal and those who do not. One of the responsibilities of public education is to serve all students across the demographic spectrum. Without equalizing accessibility of broadband services, we will be falling short of that goal. Students who do not have access to the internet at home are distinguished from their counterparts in both ability and opportunity; they continue to fall further behind as they advance through grade levels. In addition, those students with broadband available already will not be able to take advantage of the revolutionary educational services that are being developed or are already utilized. Teachers are unable to innovate or update their lesson plans if, for example, 25% of their class is unable to participate in an extended learning opportunity. Without intervention the Digital Divide will force public education to make a serious choice: move forward and leave the digital have-nots behind, or stay behind at the expense of the haves. If this problem persists, a culture of alienation will arise wherein teachers, technological haves, technological have-nots, parents, and communities will feel that their needs are not being addressed. This could result in several consequences ranging from generations of under-qualified students, to a mass exodus of clientele and skilled educators to non-public sectors where the problem may be less prominent. As it currently stands, public education is already in competition with private education; and losing more education funding due to a lack of technological accessibility cannot be an option. This project comes at a critical juncture. Public education can either grow to match the Knowledge Economy, or it will be left behind in the Industrial Economy of the past. b) Your overall approach to addressing the need and how your approach is innovative. In order to combat this Digital Divide, we must mold the community and enable all students to empower their education through technology. Traditional thought would suggest making technology available at schools or extending media center and library hours to provide students Internet access after school. Though this tactic was acceptable at one time, it insufficient when technology has become intertwined with everyday life. Our proposed approach is innovative in that we will take technology to students' homes, especially for the families that do not have the means to provide technological resources. There are several advantages to this approach.
Students are immersed in technology, helping prepare them to become capable and productive citizens in the 21st Century. Skills such as self-learning, intelligent researching, and technological literacy are easier to gain when they can be practiced at home. Students are enabled to become proactive in their own education, as opposed to reactive; which makes learning more engaging for everyone involved. By taking this approach we take education past the "brick and mortar" walls of the school and encourage lifelong learning in the Information and Digital Age. The reason this approach is so innovative is that it does not just reform education, it transforms learning. Education is allowed to continue to grow while building upon the foundation of successful work that already exists, both technological and traditional. Through high-speed internet, the instructional day can be effectively extended and enhanced without the resources needed to reorganize the traditional schedule. Mechanisms are already in place for this type of implementation. More educators and underserved students just need to have a pathway to access. In the K-12 field, learning technologies are already leveraging the power of multimedia, computing, and high-bandwidth internet. Rosetta Stone, Creative Commons, iTunes U, and Continuity of Learning, are just a small sample of the tools available right now, with more to come in the future. This is not a new concept, it is being realized at all levels, including in a statement by the U.S. Department of Education Secretary, Arne Duncan, on March 05, 2010, discussing the draft of the National Technology Education Plan: 'The fourth goal has to do with infrastructure. It also calls for broadband connectivity for all students, everywhere’in schools, throughout the community, and in students' homes, and we look forward to the release of the FCC Broadband Plan to support this effort. The FCC Chairman Julius Genachowski is a passionate about education.'

c) Area(s) to be served; population of the target area(s), including demographic information. All schools selected for Extension 21 are classified as Title I according to the U.S. Department of Education No Child Left Behind (NCLB) criteria. Consequently, a high percentage of students participate in the free and reduced lunch program due to socioeconomic conditions. Schools, districts, and the percentage of internet adoption in both are provided below. (All estimates of usage provided by Cox Communications)

- Chandler School District San Marcos School
  - Homes that can be serviced = 24,469 Percent of homes serviced = 49% (lower than percentage of Chandler district).
  - Chandler District percent of homes serviced = 59% (higher than percentage of Phoenix metro)

- Osborn School District Montecito School
  - Homes that can be serviced = 14,138 Percent of homes serviced = 35% (lower than percentage of Osborn district).
  - Osborn District percent of homes serviced = 40% (lower than percentage of Phoenix metro)

- Paradise Valley School District Indian Bend School
  - Homes that can be serviced = 27,784 Percent of homes serviced = 47% (lower than percentage of Paradise Valley district).

- Glendale School District Desert Spirit School
  - Homes that can be serviced = 9,360 Percent of homes serviced = 40% (higher than percentage of Glendale district).
  - Glendale District percent of homes serviced = 32% (lower than percentage of Phoenix metro)

d) Qualifications of the applicant that demonstrate the ability to implement the project and achieve its intended results. The Maricopa County Superintendent of Schools Office (MCSOS) provides a variety of services to all school districts within Maricopa County, the fifth most populous county in the U.S. The MCSOS community contains 62% of the students within the state of Arizona. Services include grants management for many of the smaller and medium districts within the county. This has given us the background and ability to achieve intended results for the project. Our staff is highly skilled in conducting and implementing grant programs, particularly the Extension 21 program.

e) Jobs to be saved or created. Our determination of
jobs created and saved is based off of the federal formula of one job created for every $92,000.00 of ARRA funding distributed. Our total number of jobs created and saved as a result of this funding will be approximately 40. f) Overall cost of the proposed project. Extension 21 costs are divided into two categories. The first category is the funds being requested by the U.S. Department of Commerce totaling $2,298,000. The second category is matching/in kind costs totaling $1,445,600. This yields a project total of $3,743,600 with 39% in matching funds.