Executive Summary:

In the mid-80s and 90s the enabling, digital technologies, such as JPEG, MPEG, DSL, ATM, and fiber-to-the-home (FTTH), were being developed in communication research labs around the world. Many of us who worked on those technologies were concerned about the “digital divide”. Our fear was that these new technologies would further exasperate the separation between the “haves” and the “have nots” in the US. While corporations talked about the benefits to society, at large, of the “information superhighway”, internally they were primarily focused on protecting their revenue streams. The Utopian scenario for the evolution and distribution of broadband services and applications would have everyone, including low income, seniors, and the unemployed, enjoy the benefits of our creations. Unfortunately and not surprisingly the Utopian scenario has not yet materialized. However, the Sustainable Adoption aspect of BTOP offers a unique opportunity to build a bridge across the “digital divide” for the unserved and underserved. Furthermore, in the process of building that bridge, we can create a career path for those individuals lacking the knowledge and skills to compete in a 21st century economy.

Even in those locations where there is adequate access to broadband facilities, the targeted population will likely find the digital services difficult to learn, have little utility, and are often too costly. It is our contention that this population needs free and ready access to knowledgeable and sympathetic, technical support.

Recognizing a similar need in the late 80s and early 90s. Bellcore (once part of Bell Labs) designed and hosted the Bellcore Teacher Institute thereby giving elementary school teachers in NJ a crash course in the emerging internet applications such as web browsing, email, and video-on-demand. This proposal will do something similar for residents of Habitat for Humanity homes. We propose creating a 501C non-profit corporation that would do two, seemingly disconnected, things: a) train a cadre of technical aides (TAs) to become fluent in the idiosyncrasies of digital service and b) fund small university research projects aimed at inventing and developing more usable and affordable, broadband applications. The
TAs would in turn educate, inform, troubleshoot, install, advise, and generally provide one-on-one technical support for Habitat residents. Over time some of these Habitat residents will in turn help their neighbors navigate the digital world. Initially Dr. Judice will be the primary trainer but over time they would be some combination of paid and volunteer communication professionals and educators. The newly created 501C will be called, the Broadband Training and Usability Institute (BTUI). BTUI would be incorporated in the state of Florida. Initially we will set up training programs at St. Johns River Community College to provide service to residents in West St. Augustine and Lincolnville. Our second target is Asbury Park, NJ. However, it is our intention to grow nationally wherever Habitat for Humanity is operative.

As mentioned previously, a critical aspect of our proposal is to support a small number of university lead research projects aimed at making broadband digital services more useful and less costly for those on the lower rungs of the economic ladder. BTUI would have a panel of experts, who would also serve as our Board of Directors, that will solicit and review innovation concepts and provide initial seed money that can lead to working research prototypes.

The applicant, Elaze Digerati LLC based in St. Augustine, FL, is a very small consulting company founded by Dr. Charles N. Judice who is personally capable and committed to making this vision a reality. Dr. Judice has over forty years of experience in the communications business, is a fellow of the IEEE, holds over a dozen patents and has published extensively. His inventions include DSL one of the primary mechanisms for broadband service delivery. He lead the Broadband Services Research Dept at Bellcore, was director of the Networked Imaging Technologies Center at Kodak, and dean of the Bellcore Teacher Institute. He has taught as an adjunct and visiting professor at Rutgers University, Monmouth University, and Flagler College. He is a volunteer of the Saint Augustine Habitat for Humanity crew and a mentor in their “Take Stock in Children” scholarship program. For the first two years Dr. Judice will devote all of his time to this endeavor.

Specifically, BTUI will provide training on applications such as: email, web browsing, broadcast digital TV, digital storytelling, texting, and the essentials of computer fluency as defined by the NSF funded panel. We would expect that the TAs, who would receive a small stipend, but would eventually become employed in the IT, communication, and media industries. Our initial BTUI session will train 20 TAs beginning in the Winter of 2010. Each session will last one month; in 2010 we plan to host six sessions. Our advertising and marketing program will spread the news within the IEEE Communication Society family and target additional geographic areas for 2011.
We are asking for seed money of $536,000 and will match that with in-kind salary deferrals of $144,000.
In addition to the trainer salaries and management consulting fees, we plan to purchase a small number of laptops. These laptops would be used for training and loaned to residents of the targeted areas. There would also be an advertising campaign including web ads and video new releases to appropriate media outlets. We would develop a BTUI website with a target of 24 hour free on-line help. Roughly 20% of the funding would be made available for innovation grants that lead to products and services that make broadband services more affordable, useful, and intuitive.