STATEMENT OF THE PROBLEM Broadband is currently not adopted by many households in underserved areas primarily because of cost. It is well understood that lowering broadband rates results in increased broadband adoption. The underlying problem to be addressed is how to get broadband Service Providers, who offer these broadband services to households, to lower the monthly broadband rates they charge their customers. Service Providers, however, are business entities that have to make money. If they reduce their rates, they must be able to recoup the lost revenue elsewhere. Temporary subsidies by their nature are not sustainable. What is required for the Service Providers is a new business model that generates a new revenue stream that is lucrative and sustainable. OVERALL APPROACH AND HOW IT IS INNOVATIVE We propose a very innovative solution that allows the Service Providers to generate a new revenue stream that can be used to offset the rates they charge their subscribers. This new revenue stream is based on a different industry and is a very lucrative and fast growing market. Details of the new revenue stream is provided in the main section of this application. We will describe how this business model will motivate incumbent Service Providers to lower their broadband rates in order to attract more customers. There are other products currently in the market, already implemented by other companies, that are somewhat similar to ours. But these have largely failed due to overwhelming negative consumer response. Our proposed solution implements this in a radically different way to address these negative concerns. We give the broadband consumer full control over our product to allow them to determine how much they are willing to pay for their broadband service, and the trade-offs they are willing to accept in exchange. A description and details of our implementation is provided in the main section of this application. What is really compelling about our proposed product is that the specific hardware and software technology needed already exist today. What makes our product innovative and different than currently existing products is the manner in which such existing technologies are put together in the manner being proposed, which has not been done before. Also innovative is the proposed business model. We allow broadband customers to specify the rates they are willing to pay for their broadband service in exchange for a dynamic business negotiation with the phone or cable company for their broadband service. The details of this innovative business model is provided in the main section of this application. AREAS TO BE SERVED Our proposed product can be used in any service area in the US. There are no restrictions. Our product is not regional specific. Any broadband Service Provider in any region can implement the new business model whereby a new revenue stream can be generated by allowing the broadband subscriber to dictate the terms under which his broadband rates are determined. QUALIFICATIONS OF APPLICANT Our team has over 73 years of combined telecom equipment development experience, mostly related to broadband
technologies such as DSL and fiber-based access. We have deep project management experience to enable on-time success of the proposed project. One previous project managed by our team member is directly relevant for comparison with our project in terms of duration (3 years) and budget size ($12M). In addition, we have proven expertise in the management of federal grants. One of our key team member has managed federal funds and awards at the Grants and Contracts Division at a university in California. This team member has National Council of University Research Administrators (NCURA) certification. 

JOBS TO BE CREATED Should we be awarded this grant, we would essentially be creating a new high-tech company staffed with creative technical individuals, thus creating numerous new high-paying jobs. This project will generate 63 direct job-years. The majority of the new staff to be hired will be high-quality, high-paying full time technical-level positions such as hardware engineers, software engineers, verification engineers, lab technicians and project managers. In addition to these direct new jobs, other jobs would be created: indirect jobs and induced jobs (as defined by the Council of Economic Advisers). Some of the indirect jobs resulting from our project would be: jobs required by the Service Providers to set up new DSL services jobs required by the component suppliers (e.g. Intel) to supply parts used in our equipment We estimate that 26 indirect jobs would be created by our project. Furthermore, we estimate that 50 induced jobs would be created by our project. Lastly, having increased broadband adoption can even benefit the end user with respect to new jobs. Broadband adoption can open up new job opportunities by allowing users to work from home such as from telecommuting or from running a home business. 

COMMUNITY ANCHOR INSTITUTIONS The success of our project relies on the ability to quickly verify our software algorithms used to determine the dynamic broadband rate trade-offs that are established between the broadband user and the broadband Service Provider. Consequently, we plan to initially implement our project at institutions that aggregate a lot of Internet users such as public libraries. This becomes a win-win situation for both us and the participating institutions: we benefit by being exposed to a large number of Internet users and the public institutions benefit by receiving lower broadband rates from their existing broadband Service Provider resulting from the use of our product. A list of the first public institutions we plan to to engage with is included in the uploads section of this application. 

OVERALL COST OF PROPOSED PROJECT The estimated overall cost is $12,790,627.