Executive Summary

a. A statement of the problem or need your project addresses with regard to improving broadband service adoption rates: When conceptualizing the most effective and efficient way of organizing Homeland Security and Public Safety training in New York State it is essential that current assets, human resources, and operational jurisdictions be part of the calculation. Such a 'node' and 'link' geodesic network design, in theory, is readily applied to New York State's First Responder agencies. Spread across New York State are first responder agencies in Emergency Medical Services (EMS), the Fire Service, and Law Enforcement. Each of these units represents a separate 'node' or geographic location/jurisdiction linked to the Department of Health, Division of Criminal Justice Services, the Office of Fire Prevention and Control, the Office of Homeland Security, and the State Emergency Management Office. Training standards are also imposed by the federal government on state agencies, and in turn mandated to localities. During times of regular activity State-level legislation, mandates, and regulations provide clear standards of accountability and assessment. These standards offer benchmarks of interoperability and expectations of consistency. A way of making First Responder training in New York State more accessible is to delineate the distinction between geography and training. Centralization is expensive and does not, by necessity, enhance achievement of state and federal agency training standards. This is particularly the case for training that takes place for a mass number of individuals at the entry- and mid-level, as opposed to advanced training programs for a limited cadre of specialists. It is essential that 'Defense-in-Depth' (DiD) be embedded in the geographic, logistic, and intellectual framework of the creation of a network. The word 'network' is employed here to mean the communication and protocols that link geographically dispersed agencies for the purpose of cooperative training and efficient mutual aid. DiD depends on layers of capability as opposed to a single front-line of defense. The dispersion of First Responder agencies across New York State already provides practical DiD, but a strengthening of communication linkages is needed among organizations. SCCC is committed to engaging all potential stakeholders in a comprehensive effort to prepare and train for, prevent if possible, and mitigate if necessary catastrophic events. Implementation of this type of plan is feasible given adequate funding to support necessary human resources investment and infrastructure expansion. We should plan for it to be economically sustainable following full implementation. What is lacking is visionary funding for the facilitation of these efforts in achieving maximum cost efficiency in training our current and next generation of First Responders and emergency management services professionals. Following initial investment in technology and human resources, it is expected that video-conferencing integrated into a distributive learning model would be able to generate sufficient revenues to be self-sustaining. Rental of
the facility to public and private sector clients would form a fee structure that meets technology and human resource costs. Operating times would be built into the schedule so that rental fees would cover the cost of educational programs sponsored by the host institution. Multiple linkages among members mean an increase in effective communication on the local, regional, state, and national levels. Regular and coordinated regional training is necessary for prevention, mitigation, and recovery of all-hazard events. Information technologies within a distributive learning framework enhance access to expertise and assessment of training effectiveness. Regionally located centers provide hands-on training experience for entry- and mid-level training and the opportunity to forge acquaintanceships among First Responders from different jurisdictions. Additionally, proactive engagement of private and public sector critical infrastructure partners enhances the all-channel network and provides the basis for self-sufficiency of training programs, facilities, and personnel. The AREA@SCCC Model's utmost objective is creation of a density of relationships, first locally based and then region-to-region. Within the distributive learning approach, the full training component would be divided among asynchronic on-line study, video-conferences in 'real-time' held in regional locations close to the First Responders operational jurisdiction, and in-person at a single geographic site. The nature of the training would determine the proper percentage breakdown among the distributive learning components. It is of vital importance, however, that some of the training programs offer students the ability to interact at a physical location. The life and death nature of the First Responder services places a premium on the 'handshake,' the sharing of a meal, and the casual interaction that occurs between training sessions. Should the time come that First Responders from different geographic regions need to integrate operations during an all-hazard event, operationalization of state and federal training would be enhanced by the personal connection formed at in-person training sessions. The greatest cost involved in training First Responders is related to the way education is now delivered at a limited number of training locations. First Responders are required to physically travel to a centralized node and are effectively removed from responding to events within their operational jurisdictions. The AREA@SCCC system is predicated on the limited availability of instructional experts to travel and the correct desire of state and federal agencies to have their training curriculums meet expectations of consistency. Cost inefficiencies may be externalized by state and federal agencies to 'non-expert' trainees from the localities that are forced to travel to a distant center for training. This shifting of transportation cost acts as a disincentive for volunteers who pay out-of-pocket and career agencies that operate under budget constraints. First Responders could react by either defying state training mandates or dropping out of volunteer positions. It is impossible to eliminate the geographic dispersion of First Responder agencies, but it is possible to employ information technologies to increase the number of locations where 'routine' training is available. Use of information technologies used for 'distributive learning' can ensure adherence to training standards, even enhance state and federal agency expectations of consistency through electronic storage and review of 'class' sessions by the expert and/or representatives from the sponsoring agency. Regionalized training centers offering distributive learning to First responders are gateways, or 'learning switches,' that may be organized to enhance local access to training. Distributive learning methodologies are a means of reducing costs, maintaining training effectiveness, and increasing instructional quality assurance that state and federal agencies demand. This 'geodesic network' architecture is the device that provides for a reframing of how we can better train First Responders, particularly those on individuals the entry- and mid-levels. The AREA@SCCC project envisions a total of
two (2) video-conference nodes per county served by Zone 5; nine members and one participating county. Additionally, the project envisions an one (1) additional node for each county in the Zone 5 service area for the Firefighting and EMS communities. Selection of sites will be performed in cooperation with SCCC partners Zone 5 and the New York State Association of Fire Chiefs.  

b. Your overall approach to addressing the need and how your approach is innovate.  

c. Area(s) to be served; population of the target area(s), including demographic information. New York State's Greater Capital Region is the proposed service area. AREA@SCCC intends to work within the service region defined by the membership and service provision of our partner, the Zone 5 Regional Law Enforcement Academy. The nine counties comprising Zone 5’s members include: Albany, Fulton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, and Washington. Additional training is provided to law enforcement members of Columbia County. According to the United States Census Bureau this service area represents an aggregate of 6,059 square miles, a population of 1,148,403 (est. 2008), 445,148 households (est. 2000), and 29,008 non-farm private business (est. 2007). The New York State Citizen's Guide web site lists 197 municipalities in the region. Unemployment figures for December 2009 as reported by the New York State Department of Lab