**Executive Summary**

**SUMMARY – NORTHERN PENNSYLVANIA OPEN ACCESS NETWORK** This project is based on the Carrier Independent Model that was developed in McKean County PA. This model allows for multiple use of the infrastructure across three categories of participants. It is important to note that this model was developed well in advance of the Stimulus Grant Opportunity and was the first Open Access solution in the region at the time. These categories include: - Governmental / Public Safety use (State, County and Municipal). This infrastructure is developed to provide services across the region for the purpose of conducting Governmental business. In addition this network is being built into existing Public Safety 911 Centers and Emergency Operations Centers. This category of the network is made available through contractual IRU. This category of the network is deemed non-compete and is solely for the specific purpose of conducting Governmental business. - Contractor (Owner) – This core element of the network infrastructure is for the principal purpose of provisioning services to anchor institutions and critical community facilities. Additionally and in order to achieve sustainability the sales of enterprise business and residential services are made available. - Carrier Independent “Strands” – This category of network is intended to provide open access of network to resources to provide for cost effective middle mile and long-haul transport. This transport is intended to be made available below market rates and is intended to enable the build-out of Last Mile services. **PROJECT SCOPE and COST** This 210 mile (Middle Mile) project is intended to allow for interconnection points in the census blocks that the network transits. Physical connectivity will be provided from the nearest "interconnect" location points. **GOVERNMENTAL and INTER-COUNTY NETWORK** This open access network will provide connectivity to ten (10) County buildings towards the development of a Regional Inter-County Network. This Inter-County network will allow for the collaboration and sharing of costly system solutions. This network will allow the advent of a shared systems and support concept. Counties connected through this effort include: Cameron County Clearfield County Crawford County Elk County Erie County Jefferson County McKean County Venango County Potter County Warren County Each County throughout this region is required to automate and implement systems that range from GIS (Geospatial Information Systems), Assessment, Financial and Criminal Justice Systems. The costs of these systems can be staggering. Further the redundant acquisition of these systems is not cost effective. Also, each of these systems require Information Technology staff to support and maintain these solutions. This adds to operations costs for each County. This network will allow the possibility to reduce capital and operating costs and provides a conduit to collaborate. The ability for County constituents to access data from a regional perspective will make for a more efficient use of this data. Currently abstractors, lawyers and citizens
have to travel across a vast geography to obtain data from multiple Counties. The future of shared access will allow this to occur from within their home county and reduce the costs incurred. Finally, each County is responsible for a Continuity of Operations Plan (COOP). These COOP plans could easily have reciprocal backups and offsite “hot-site” relationships in neighboring Counties. This regional network would make this a possibility and further enhance the ability for County Government to operate in the event of a disaster or pandemic. Currently these reciprocal solutions are limited at best and cost prohibitive. In addition the Commonwealth 37th Judicial District spans Forest and Warren Counties. The ability for this District to function as a common “administrative” entity will greatly be enhanced by connectivity between these specific Counties. PUBLIC SAFETY This project intends to provide similar connectivity to a minimum of seven (7) 911 Centers and Emergency Operations Centers. This high speed connectivity between multiple Emergency Operations Centers will provide for a depth of resources that does not exist within the geography of a single County. The Public Safety and Emergency Management community have developed mechanisms to “inter-operate” through the development of Regional Task Forces. These Task Forces and the Counties within each Region need network infrastructure to move further down the road of cooperation. Natural disasters and pandemics have and will continue to occur across County, State and Regional Boundaries. Our Public Safety experts need to be able to share resources and information to effectively support their constituency. Modern Technology and quality network infrastructure can allow the future ability to develop reciprocal “hot-site” Emergency Operations Centers. The existing EOC’s could support each other in the event one was disabled due to untold emergencies. Additionally developing a regional network would allow potential connectivity to the Commonwealth of Pennsylvania network from multiple locations across a fiber network backbone. This would supplement the Commonwealth solution while this resource could aid in the reduction of costs. EDUCATION Educational opportunities will be further enhanced through the telecommunications integration of the four (4) Higher Education Councils. These Councils have the mission of providing Educational opportunities in the most rural areas of the Commonwealth. Councils that have shown support for this connectivity include: Forest / Warren Hi-Ed Council Potter County H-Ed St. Marys Hi-Ed Council Corry Higher Education Council. Educational Consortium of the Upper Allegheny This integration will allow for greater ability to share resources throughout the region while enhancing the Educational Consortium of the Upper Allegheny (ECUA) by increasing the ability to provide sustainable education across this rural geography. HEALTHCARE Healthcare in a rural region is dependent not only on the resources within their own community but also those resources only available at the Tertiary Care Providers. Most often these Tertiary Providers are located many miles away. Often hundreds of miles from the nearest Community hospital or medical center. Although in some cases Emergency Flight (patient transport) has helped this situation, there is yet a defined need for “emergent data transport”, The ability to move high resolution medical data across a high speed fiber network to a Tertiary Care Provider may be a matter of life and death. Rural Critical Access hospitals located throughout this region have a reliance on additional expert resource then they are able to staff in a 24/7 environment. Video Telemedicine can assist in spanning this divide between resources. This type of high definition video telemedicine is best suited to transit modern telecommunications systems. BROADBAND USERS “Small business” is the fastest growing segment amongst new business startups in our Country. These entrepreneurs demand the same level of performance and accessibility to compete with their more urban area counterparts. The disadvantage of underperforming or worse yet, zero availability to a
broadband solution will stifle this growth in our region. It is incumbent on us to build this middle mile infrastructure so that the Last Mile providers can reach out and enable these businesses. “Residential users” require the the bandwidth to be able to educate themselves remotely via “distance learning” applications. In addition the access of virtual private networks into their workplace can augment and supplement the small and enterprise business as their employers find themselves forced to work from home at times. QUALIFICATIONS Zito Media management staff has extensive background in the design, implementation and operations management of national networks (see attached management resume’s). Experience in providing services to Governmental, Education and Healthcare clients across the region cannot be understated. SUMMARY In summary the Northern Pennsylvania Open Access Network is intended to be a multi access network that is focused on the provision of a middle mile solution that enables Government at various levels, Public Safety, Education. This solution is also providing the inter-connects that will enable the last mile providers to be able to afford network builds out into the under and un-served communities. This 210 mile (new build) project will provide interconnection opportunities for Last Mile providers to reach an approximate 19,939 households that are in unserved areas throughout the region. It is anticipated that due to the rural nature of these households the take-rate will be lower then in more populated areas. Subscriber projection minimums are anticipated at 2300 cumulative subscribers in a 60 month period. Zito Media is hopeful that other grantees launch Broadband Sustainability Education Programs throughout the region to enhance the take-rate over time. This same infrastructure will have the opportunity to present Last Mile services to an approximated 1848 businesses. In addition to the anticipated anchor tenants, small businesses are reliant on broadband connectivity to retain jobs. The majority of these businesses will be targeted by the Last Mile providers. Construction and operations estimates of a project of this scope will create an immediate need for 105 jobs. This employment covers engineering, mapping, construction, splicing as well as management and operations staffing.