Broadband USA Applications Database

Applicant Name: CARVER, COUNTY OF

Project Title: Carver County Open Fiber Initiative (CCOFI)

Project Type: Comprehensive Community Infrastructure

_____Executive Summary_____

The Carver County Open Fiber Initiate (COFFI) is a project that was conceived by Carver County employees to help government run more efficiently. Since the beginning, the goal has been to adapt new ways this project could better serve the needs of the County, its communities and most importantly the residents. Though time has elapsed since the initial push to implement this project, the enthusiasm and drive of Carver County employees to complete this project has not waned. Their commitment and goal is to benefit all and have put in long hours to complete this application, not for their benefit but understanding the need to address the severe data shortages and the high costs associated with the limited available decent service that at this point is in very short supply and where available the high costs associated with this limited availability.. This project addresses the immediate needs of the county's internet and data transfer speed issues, connects all of the school districts and each individual school to the COFFI ring. Higher Education, both community college and university are connected allowing information to flow more freely and for these institutions to help broaden the horizons of the children of the area. The vulnerable populations, especially low income, rural and the young will be served by the connections to libraries. Medical facilities and volunteer organizations like the Red Cross will be connected for every need, from medical records exchange for healthcare to volunteer and donation needs for the support organizations within the county. Law enforcement and Homeland security will both benefit from fast, reliable, and most of all secure communications between agencies and departments. This addresses the greater Carver County community by bringing the fiber backbone through all of the 11 towns and 11 townships, connecting them with local, state and federal agencies with one hundred megabit per second speed bi-directionally. The anchor institutions in these towns will all have the opportunity to connect both during and after the build process. With over 55% of the counties land mass being rural, unfortunately there is not a lot of effort to bring this type of product into the area. Furthermore, RUS has not responded to an application that was prepared over two years ago. In the meantime, costs have increased and tax revenues have shrunk creating a double problem for funding this independently. This project was submitted in the first round to RUS under the ARRA BIP program where it was turned down. Between the shortage of private lenders, the unwillingness of the Department of Agriculture, and the long time that funding has been sought for this project, we believe this project shows the need for funding and the inability of this project to be completed with traditional funding. There are 24,356 households and 2,735 businesses passed as well as the 86 anchor institutions with this project. These anchor institutions consist of 28 schools (k-12), 5 libraries, 1 medical and healthcare provider, 16 public safety entities, 1 community college, 1 public housing entity, and 1 institution of higher education, 10 community support organizations, and 23 other government facilities.

The initial proposed services are confined to high speed data. Please remember that data takes many forms in today's world, from high speed internet traffic and bi-directional data transfer to VoIP (Voice over Internet Protocol) Video that is encapsulated in IP and, security camera and monitoring systems, and even secure data storage and encryption. These IP services will be provide to the anchor institutions identified with future plans to connect even more anchor institutions as well as the businesses and residential customers in the area. Since it is an open network, the network is designed to have one or more private service providers selling services on this network. This will allow the largest number of potential users to connect in the shortest amount of time. Since this is designed from the ground up as an open network, there will not be discriminatory or non-interconnection issues. All bona-fide requests for connection will be assessed and addressed with connectivity not being unjustly denied. The proposed network is a fiber optic ring topology and the fallback routing technology which will allow for redundant delivery of traffic to each point on the ring. This redundancy makes the network extremely reliable allowing time sensitive traffic such as public safety to utilize the service. The fiber optic cable employed in the ring will be buried to further guard against loss of data during times of crisis as well as to prevent vandalism and animal intrusion. The fiber allows virtually unlimited speed at an extremely low latency making real time video and voice a reality. The nodes will each be served by their own redundant switch to guarantee the greatest amount of uptime possible. Each node will feed lateral paths of fiber that will connect more anchor institutions to that point. Aggregation will take place at this point and traffic will be delivered around the ring to its final destination or on to the internet peering point where it will be delivered out to the world. All ring speeds will be at 10 Gbps and all lateral connections will be made at 1 Gbps. This will allow not only for the speed needs today of 100 Mbps but for flexibility going forward. The entire network will be deployed with Cisco gear to complement the existing Carver County equipment. It will also enhance the management of the network through common network monitoring and configuration tools. Carver County is able to demonstrate its ability to build and manage a project like this from several directions. As can be noted on the management and contractor resumes, there are more than two hundred years of experience building, maintaining, and operating communication networks. There is also over one hundred years of experience designing, building, and operating fiber optic networks in particular. Coupling this experience together gives a team of dedicated professionals that can handle the unique requirements of both an inside and outside plant deployment and continue to manage the platform for users after completion. Financially, Carver County has a substantial reserve fund as indicated with the historical financials enclosed, one of the highest bond ratings available (AAA) and a skilled financial team. With over 700 employees, there is strength of purpose and a depth of understanding to implement even the most difficult task and to complete projects on time and on budget once they begin. By partnering with Jaguar Communications, Inc. to help design and build this system, the county has shown that it understands the value of a strategic partnership to bring in the specialized knowledge that is needed for a project of this complexity.