Broadband USA Applications Database

Applicant Name: SOUTH METRO FIRE RESCUE AUTHORITY PUBLIC CORP

Project Title: South Metro Fire Rescue Authority Broadband Infrastructure Development

Project Type: Comprehensive Community Infrastructure

Executive Summary

Problem Statement The South Metro Fire Rescue Authority (Authority) is an all hazard and medical emergency public safety agency providing service to eight municipalities in two counties with 197,000 citizens across a 177 square mile area. The target area lies south of Denver along both corridors adjacent to I-25, extending from the foothills to the plains. Public Safety Agencies have been included in the BTOP CCI Priority Criteria. This broadband application is for secure middle mile and last mile sites all within the Authority's service area. The middle mile portion of the project includes owned and leased tower facilities for five proposed licensed 11 GHz sites, while the last mile locations are licensed 4.9 GHz sites for 20 Authority facilities including 14 fire stations, a training center, and an Emergency Operations Center/Finance facility. The Authority was formed in 2009 via the merger of South Metro Fire Rescue and the Parker Fire Protection District, both of which are Special Districts. The merger has resulted in the critical need to extend secure high capacity broadband to as many of the Authority's facilities within the District as economically feasible, allowing for improved emergency dispatch functions, training, and operations. The Authority's current network configuration only provides a last mile speed between 1.5Mbps and 3Mbps. There is a middle mile speed of 27Mbps which is currently oversubscribed. This limitation hinders our ability to provide the best service to our citizens, affecting response times and response unit dispatch capabilities. Due to the low bandwidth, fire fighters must travel from their fire stations to one of the administration or training buildings to get the necessary training skills to perform their jobs. This leaves coverage gaps in our emergency response plan, which in turn, results in longer response times to 911 emergencies. Additional bandwidth will allow teleconference training, as well as improved dispatch and operations communications. The Authority's network configuration only provides a last mile speed between 1.5Mbps and 3Mbps speeds to 17 fire stations, 1 administrative building and 1 training/fleet repair facility. There is a middle mile speed of 27Mbps which is currently oversubscribed. This limitation hinders our ability to provide the best service to our citizens. Our fire fighters must travel from their fire stations to one of the administration or training buildings to get the necessary training skills to perform their jobs. This leaves coverage gaps in our emergency response plan, which in turn, results in longer response times to 911 emergencies. The Joint Services Facility (JSF), which our Training Division is located at, is currently connected via a 5.8 GHz unlicensed link that is oversubscribed due to the number of personnel located here in addition to the over subscription of our current middle mile. The Authority has looked into connecting all of its locations through the use of fiber optic lines, but this proved to be prohibitive due to the high recurring cost over long periods of time. Unfortunately, fiber is not readily available throughout 59 percent of our service area which is rural or open space. Significant future reductions in revenue are compounding the Authority's ability to
delivery secure high speed broadband access to its large response area. Beginning in 2011, the Authority expects a $10.3 million reduction in annual revenue which will not be recouped. The annual reduction in revenue will continue until there are several significant positive changes in our economy reflected biannually in changes in property values. The Authority has looked into connecting all of its locations through the use of fiber optic lines, but this proves to be prohibitive due to the high recurring cost over long periods of time. Proposed Solution Partnerships and Qualifications The Authority has built two of its own towers that are available for the middle mile portion of this project. It also has tower space available on a tower owned by the Parker Water and Sanitation District and one tower operated by the U.S. Air Force and the U.S. Army Corps of Engineers. The Authority (aka Parker Fire Protection District) has extensive experience with wireless broadband 4.9 GHz applications and initially tested 4.9 GHz for its feasibility for public safety agencies through a TIIAP grant. The Authority has made significant steps to implement this frequency for facilities east of Interstate 25 in Douglas County with its tower site access and initial last mile installation at fire stations and offsite administrative and training locations. The Authority is working in partnership with KNS Communication Consulting, will provide professional services. Attached to this letter of commitment is a page from our last published catalog (June 1, 2009) showing our professional rates ($185.00 per hour or $1700.00 per day). The Authority has built two of its own towers that are available for the middle mile portion of this project. It also has tower space available on a tower owned by the Parker Water and Sanitation District and one tower operated by the U.S. Air Force and the U.S. Army Corps of Engineers. Chief Qualman is also an electrical engineer with a specialty in radio communications, our Information Technology staff will be providing the oversight of this project’s implementation. Steve Macaulay, has been the Authority’s Network and Communication Manager since 2005 and manages, controls, and coordinates the network services group to include voice/data communications specialist, network engineers, and network project coordinators. He also manages the acquisition, installation, and maintenance of the organization’s local area networks and wide area networks. Analyzes products and recommends use of new products and services to senior management. Manages LAN/WAN performance and security. Establishes and implements policies and procedures for LAN/WAN usage throughout the organization. He will be assigned to this project on a 50% full time basis as the project manager. His salary will be covered by the Authority and is not included as a match for this grant application. Robert Krause, has been the Authority's Information Technology Director since 2002. He oversees and manages several business units in addition the traditional core Information Technology (Application Development, Technical Support, and Network and Systems Administration). Manages the following functional areas in addition to the core IT functions: radio systems, telecommunications (telephony), business continuity, disaster planning and mobile data terminal systems. Provide technology vision and leadership to the Authority by developing and implementing communications and information technology (IT) initiatives and plans that improve the organizations effectiveness. Manage the operations of multiple information and communications systems and departments. Coordinate the integration of data, information, and communications systems and serves as the catalyst for new systems development. He will be assigned to this project based on 15% of his full time responsibilities for project for project administration. His salary will be covered by the Authority and is not included as a match for this grant application. Cheryl Poage has been with the agency since 1991 and will be the grant manager for this project. She was the project manager for tower construction and acquisition and has been the grant manager on numerous federal

Exclusion/Exemption The Authority will be excluding 5 fire stations from this upgrade due to location and line of sight issues and the inability to provision tower space to provide broadband capabilities to them. The Authority has looked into connecting all of its locations through the use of fiber optic lines, but this proved to be prohibitive due to the high recurring cost, $112,884 annually, over long periods of time. Unfortunately, fiber is not readily available throughout 59% of our service area which is rural or open space. The Authority is continually looking for opportunities to expand broadband services into its remaining locations that still utilize legacy connection types.