Pierce County, Washington Broadband Technology Opportunities Program (BTOP) Grant Application

Pierce County Public Safety Broadband Project

Project Description
The Pierce County Department of Emergency Management will install a broadband microwave network which will connect five Community Anchor Institutions to the Pierce County Emergency Operations Center (EOC). This effort will enhance voice and broadband data communications for public safety agencies serving over 800,000 citizens. The system will provide a minimum of 100Mbs of Ethernet and 16 T-1 circuits between each of the institutions and the EOC.

Project Executive Summary
a) Opportunity the proposed system seeks to address. The Pierce County BTOP grant application provides a unique opportunity to address the critical broadband needs of our key community anchor institutions. Specifically, we are seeking funds to install broadband, point-to-point microwave technology to connect 5 sites to our EOC. The EOC houses one of the main data centers in the county. These are public safety facilities that require high amounts of bandwidth to transport video and data to and from the EOC during disasters, emergencies and day-to-day operations. We believe that broadband microwave is the best solution to address the current and long-term broadband needs of these community anchor institutions. This technology is proven and in use elsewhere in the county. During major disasters, the public safety communication systems have remained operational when other systems have failed. This is due to the high level of redundancy and performance requirements placed on the system by our technical team. The safety of our first responders is our primary goal and we require 99.999% reliability for our public safety communication systems. The current infrastructure relies on leased lines that do not provide the needed bandwidth nor do they always meet our requirements for critical infrastructure reliability.

b) Description of the proposed funded service areas. This project will connect five facilities with the Pierce County Emergency Operations Center. These facilities are located in various urban and rural locations throughout the county. By providing this much needed broadband transport to public safety, all of the 800,000+ citizens of Pierce County will benefit through more effective law enforcement.

c) Number of households and businesses passed. This project is targeted toward anchor institutions. It focuses on Pierce County’s commitment to providing adequate broadband access to these institutions.

d) Number of community anchor institutions, public safety entities, and critical community organizations passed and/or involved with project. This project will directly serve 6 public safety facilities with each of the communities where they are located likewise benefiting from this project. In these communities other public safety agencies will be able to use the microwave infrastructure.

e) Proposed services and applications. Public safety agencies have a need to transport GPS/AVL (Automated Vehicle Location) data, voice communications, mobile data, video, fingerprints, photographs and a myriad of other critical information between
facilities in a secure manner. The proposed system will provide the necessary bandwidth and security to meet this need. f) Non-discrimination and interconnection obligations. The proposed system is a closed circuit and will only be accessible by public safety agencies. This is necessary due to the sensitive nature of the data that will be transported. g) Type of broadband system that will be deployed. The proposed network will use microwave radios with a minimum capacity to transport 100Mbs of Ethernet and 16 native T-1 circuits. Digital Access Multiplexers convert the T-1 packets to the necessary data or voice formats at each facility. The Ethernet data is fed to the existing switches in the data centers at each facility. h) Applicant qualifications demonstrating ability to implement and operate a broadband infrastructure. The Pierce County Department of Emergency Management, Radio Communications Division can readily implement and operate the proposed network as demonstrated by our success with the current network. This division is staffed with highly trained and qualified technicians, project coordinators and project managers. Since 1974, the Pierce County Radio Communications Division has maintained the public safety radio communication systems for the Sheriff, Public Works, Utilities, Parks, Corrections and many other agencies including state and neighboring jurisdictions. This includes all aspects of the system from mountain top sites, backhaul and user equipment to the 9-1-1 center. i) Overall infrastructure cost of the broadband system. The total cost of the project is $788,960. Our request is for $537,500. We will match $251,460 which is 31.87%. j) Overall expected subscriber projections for the project. This project is targeted toward public safety. It focuses on Pierce County's commitment to providing adequate broadband access to these institutions. k) Number of jobs estimated to be created or saved. One direct job-year, four indirect jobs and three induced jobs will be created by this project. In Summary: Our project addresses the critical need for broadband data transport for public safety in Pierce County. We have completed the engineering to bring this project to completion in a timely manner. We have a 31.87% funding match and the project is shovel ready. Thank you for your consideration.