Applicant Name: NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

Project Title: North Central Texas Collaborative IP Network

Project Type: Sustainable Broadband Adoption

Executive Summary

North Central Texas Council of Government (NCTCOG) requests $5,054,000 to establish a unique dual purpose regional IP-enable network. IP-networks are the future method of delivering what today is known as 9-1-1 services. The evolution of Internet Protocol (I/P) networks has enabled a whole new model of public safety communications methodologies. The impact on traditional 9-1-1 call delivery may be described as follows: ' More reliable call transport facilities ' network design, redundancy and reliability is simplified and less prone to technical failures currently experienced with the traditional telephone system. Trunk failures as well as the effects of natural and man-made disasters are significantly reduced due to the flexibility and inherent design of a multi-network strategy ' Higher capacity for call volume ' new technology utilizing fiber optics has dramatically increased bandwidth. This increased bandwidth translates into not only a greater call processing capacity, but also opens up a myriad of additional data transport opportunities. Fiber optic technology allows public safety entities to transport radio voice channels, mapping information, weather data, as well as a host of other opportunities that greatly enhance the delivery of emergency services. There virtually is no limit as to what can be incorporated or piggy-backed on to such a network infrastructure. ' Less capital costs ' As the result of large scale integration as well as the proliferation of networks in general, the cost of Network equipment both at the 9-1-1 Public Safety Answering Point (PSAP) as well as equipment required to carry the data over the network, has plummeted. ' Lower operating costs ' Due to the proliferation as well as public demand, the gradual replacement of the traditional telephone system has had a dramatic effect on lowering operating costs. The creation of network centers has allowed for the reduction of operating costs. Equipment that is physically smaller in size, runs cooler, and requires less and less maintenance. The ability to concentrate facilities as well as incorporate diverse and dynamic network models, has had a major influence in reducing operating costs. ' Economies of Scale ' Networking enables the concentration of call centers. By reducing the number of hardened facilities, significant economies of scale can be realized. There has been a trend of PSAP consolidation over the past 20 years, and now the construction of high speed, efficient, and simplified network designs make consolidation that much easier to achieve. ' Disaster Recovery ' North Central Texas servie area are vulnerable to sever weather (tornados, high winds, hail, etc). The North Central Texas service area can also act as evacuation center for Texas along the coastal areas during hurricane season. NG9-1-1 allows for the creation of virtual PSAPs. This means that an entire 9-1-1 operation can be virtually relocated to any point on a network and resume operation quickly and efficiently. In other words, a virtual PSAS does not need a traditional concrete building in which to operate. Whereas in previous technological models, PSAPs would be abandoned and shut down, all functions of the affected PSAP are simply performed
somewhere else. Not only are the delivery methods of 9-1-1 calls made so much easier, paralleling the National Emergency Numbering Associations’ (NENA) i3 standard, to deliver and accept next generation service from its 6,637,230 subscribers to public safety answering points (PSAPs). In addition, NCTCOG shall provide connectivity to 15 workforce solutions locations in 14 counties to positively impact the region's 8.3% unemployment rate. NCTCOG's IP network serves as the path for the training and applications development of next generation (NG) services by unemployed technical workers whom readily access to research and academic environments. The NCTCOG service areas include 14 counties, and 44 PSAPs. NCTCOG has implemented an IP overlay network and hired consultants to manage the implementation. Job presumption direct (10), indirect (10) and induce (8) direct jobs.