Applicant Name: IOWA STATEWIDE INTEROPERABLE COMMUNICATIONS SYSTEM BOARD

Project Title: Iowa Statewide Interoperable Communications System (ISICS)-WBN

Project Type: Comprehensive Community Infrastructure

Executive Summary

1. MASTER PLAN: The Iowa Statewide Interoperable Communications System Board (ISICSB) was created by the state legislature to develop, implement, and oversee the operation of a statewide integrated public safety communications interoperability system. The ISICSB developed a statewide Master Plan (fully described in a 324 page report contained on the ISICSB web site at www.isicsb.iowa.gov) which provides the architecture framework that drives the overall system design and includes radio signal coverage analysis, traffic loading, backbone transport needs, wireless data, and the readiness for Next Generation (NG) 911 services. This grant project is the Wireless Broadband Network (WBN) component of the ISICS master plan. It was developed in response to a three-tiered statewide survey of public safety agencies evaluating Iowa's existing systems and needs. These surveys revealed that Iowa's public safety wireless community is multi-layered with disparate radio systems that are aging rapidly and in need of modernization. Most have no or little data capability. The lack of ability to intercommunicate with other agencies (multi-jurisdictional or cross-discipline), especially in emergency situations, is a matter of great concern to public safety officials.

2. NEED: The majority of public safety professionals in the State of Iowa perform database inquiries via voice communications with the agency dispatchers performing the database search and relaying the results to the field units. This process is inefficient, and effectively precludes certain effective and more efficient data inquiry practices, like the use of Mobile Data Computers (MDCs) in vehicles. Iowa's current data communications environment is an example of data islands in which local jurisdictions focus on their particular data needs with less priority on systems capable of crossing jurisdictional boundaries. As public safety agencies look into future data needs, applications requiring high bandwidth are expected. This requires a data solution that exceeds the data handling capability of the narrow band channel integrated voice and data offerings. There is a general trend toward more use of data services to compliment and supplement voice communications. Public safety agencies are increasingly relying on data services for their day-to-day operations. Current data usage in Iowa is primarily low bandwidth services like paging and text messaging. High demand services like video, large file transfers, and high quality photo services were identified as being very or extremely important in the future. Only 25% of agencies in Iowa today make use of some data service, either integrated into the voice system (<19kbps), or a separate 3G commercial system. Public Safety users have an expectation that demand for data services will increase steadily or exponentially. Users overwhelmingly agreed that data will be an important component for public safety agencies, though some agencies were unclear as to how data applications and services might evolve. The ISICS-WBN provides the solution to the service and level needed and its evolution in a comprehensive high-speed broadband network on a common LTE platform.

3. IOWA'S DATA APPLICATION DEVELOPMENT The State
of Iowa has developed two significant broadband applications for use by law enforcement and a multitude of other first responders. The Department of Transportation (DOT) has developed The Traffic and Criminal Software (TraCS) application software that, combined with laptop computers, one or more PCs in a central office, and data communications, provides officers with all of the functionality needed to record and retrieve incident information wherever and whenever an incident occurs. TraCS consists of two related applications, TraCS Mobile and TraCS Office, which are used to collect incident data, and the TraCS Office Database, which is used to store data at the local Agency. TraCS Mobile is designed for Mobile Data Computers (MDC), such as a laptop or a tablet PC, known as TraCS Field Units, while TraCS Office is designed to run on a PC or TraCS Workstation at the local Agency. The TraCS software also includes functionality to move data between the TraCS Office Database and TraCS Field Units running the TraCS Mobile application. Web TraCS is a complete web-based version of the TraCS solution that will be available in the fall of 2010. Based on Iowa’s success in using TraCS, this software is currently deployed in seventeen states and two provinces. Mobile Architecture for Communications Handling (MACH) is an application developed by the Department of Public Safety (DPS) which is currently in use as a pilot with the Iowa State Patrol (project counties), DOT Motor Vehicle Enforcement, Ames Police Department (Story County), Marshalltown Police Department (Marshall County), and Dallas Co Sheriff Office (adjacent to Polk County). MACH is a second generation 3CS (Collaborative Command & Control Software) application. MACH utilizes an innovative internet communications architecture that allows public safety agencies to share information for facilitating cooperation and organization during everyday activities and emergency situations. MACH uses the internet and a sophisticated, scalable and secure web services messaging foundation to offer job enhancing features that have until now been unpractical to provide to the public safety personnel in the field due to limited data throughput. With MACH, police, EMS, fire, and DOT agencies can share information vital to handling an incident. From car to car instant messaging and alert notifications to real time mapping of incidents and responders, MACH provides the missing piece needed for inter-agency and cross-agency coordination. Additionally, this project will serve the needs of the Meskwaki Police Department, which serves the Sac & Fox Tribe in Tama County. Their tribal police department is working on a project to place mobile data computers (MDCs) in their patrol vehicles, which will provide their officers with a new data capability. This ISICS-WBN project will provide the much needed data service for them to use these MDCs. 4.NG911 The State of Iowa E911 Program is in the process of migrating the current wireless 911 network to a Next Generation 911, Emergency Services IP Network (ESInet). Two of the six counties in this project have recently upgraded to the new 911 data servers in their Public Safety Answering Points (PSAPs) which will allow them to accept varying types of data such as texting, video, and photos using Internet Protocols and standards. ESInets are intended to be multi-purpose, supporting Public Safety services in addition to 911. The ISICS-WBM will synergize with the NG911 initiative. 5.SERVICE AREA The service area for this project includes six (6) counties in a proof of concept project. This project area anticipates serving 7200 public safety end-users. Five of the counties (Polk, Story, Marshall, Tama and Black Hawk) are contiguous and will provide seamless broadband data coverage to users throughout these counties. The sixth county, Woodbury, is a stand-alone county that has been aggressive in public safety interoperability and whose current system serves a tri-state area (South Dakota, Nebraska, and Iowa). It will test this data concept with a robust voice capability in need of a data component. 6.PUBLIC SAFETY ANCHOR INSTITUTIONS This proposal will serve seventy-six anchor institutions in the six county service
area in a combination of metropolitan, micropolitan, and rural areas within these six counties. These include law enforcement, fire services, emergency management, corrections, and libraries. 7. PROPOSED SERVICES AND APPLICATIONS This project will provide both middle-mile and last-mile component?the middle-mile network will furnish a broadband backbone network in the service area through ICN fiber and microwave towers. It will also furnish broadband service to end-users through wireless towers and ICN fiber nodes connecting the PSAPs in those six counties. 8. NONDESCRIMINATION & INTERCONNECTION: There are no restrictions for authorized users. The ISICS presents an open system to public safety anchor institutions and users at all public safety levels in the proposed counties, to include metropolitan, micropolitan, and rural agencies. 9. QUALIFICATIONS OF APPLICANT The applicant is a legislatively created board charged with building an interoperable public safety communications system under the purview of the Department of Public Safety and Department of Transportation. 10. OVERALL COST: It is projected that this project will cost approximately $154 million to build-out a broadband network in the six county area. 11. JOBS CREATED: This project will create 1673 job years, utilizing the Council of Economic Advisor’s guide