

Broadband USA Applications Database

Applicant Name: Information Technology, Department of

Project Title: Access Connecticut: Expanding the State's Education and Public Safety Network

Project Type: Middle Mile

Executive Summary

Overview The State of Connecticut Department of Information Technology is providing leadership to, and partnering with, Connecticut state agencies and initiatives, including the Department of Public Safety, the Connecticut Education Network, and Connecticut Public Broadcasting, Inc. (CPBI) to enhance broadband access to the residents of the state of Connecticut. This proposal seeks funding to serve all of Connecticut's 3.4 million residents, while providing necessary infrastructure to underserved communities. This proposal includes: - The preservation and creation of jobs and investment in infrastructure that will provide long-term economic benefits - Spurring technological advances in education, health and public safety - Stabilizing state and local government budgets by leveraging coordinated management and procurement efforts - Providing improved access to broadband service to consumers residing in underserved areas of the state - Providing broadband access, education, awareness, training, equipment, and support to community anchor institutions, to include improved access by public safety agencies - Expanding current data networks in existing areas and creating capacity to allow for the immediate provision of services by third party providers in areas currently underserved - Stimulating demand and enabling access for broadband and, economic growth and job creation - Enhancing the reliability of existing broadband infrastructure - Enabling the expanded network to connect with neighboring states to support future interstate collaboration In all, the project will provide broadband access to community anchor institutions including 485 points of education and public safety while laying the foundation for potential future access at all the State's households, although public subscribers are not applicable to this application. The overall cost for this effort is \$109,750,451, creating 1,189 jobs as a result. Key Participants Connecticut Department of Information Technology (DOIT) The mission of the Department of Information Technology is to provide quality information technology (IT) services and solutions to customers, effectively aligning business and technology objectives through collaboration, in order to provide the most cost-effective solutions that facilitate and improve the conduct of business for our state residents, businesses, visitors and government entities. Connecticut Department of Public Safety (DPS) The Connecticut Department of Public Safety is committed to protecting and improving the quality of life for all by providing enforcement, regulatory and scientific services through prevention, education and innovative use of technology. Connecticut Education Network (CEN) The Connecticut Education Network (CEN) connects the state's public K-12 school districts, colleges and universities, and many public libraries via a fiber optic backbone dedicated for education, research and public computing center use. The CEN provides access to the Internet, Internet2, iCONN - Connecticut's re-search engine, programming from Connecticut Public Television, and other resources targeted to students, teachers, researchers,

administrators and library patrons in Connecticut. The Projects Connecticut Public Safety Services Data Network (CPSSDN) Points of Int. No. of Counties Hsehd. Poten. Jobs Created Total Cost 411 8 1,293,079 814 \$74,979,014 In 2005, the Connecticut General Assembly passed and Governor Rell signed into law Public Act 05-181 which enabled the Office of Statewide Emergency Telecommunications (OSET) to initiate a planning process for the investigation and requirements determination of an integrated safety data network. Surveys of current systems and needs led to the initiation of a feasibility study in 2006. The study included recommendations for network infrastructure solutions that would establish a new, integrated public safety data network, saving affected agencies substantial sustainable costs. Additionally, the study noted that the stand-alone legacy network infrastructure systems that Connecticut public safety agencies utilize minimally met the bandwidth requirements for current use and were grossly inadequate for near or long term projected future data transmission requirements. Also, the data network utilized by the Enhanced 911 system did not have the necessary universal data connectivity to provide for next generation 911 functionality. Numerous public safety first responders and providers including police departments, fire departments, emergency management/homeland security and others did not have any data connectivity to receive or transmit critical data for emergency services. PSAP disaster recovery and business continuity needed to be improved. Due to funding constraints, the project was divided into two phases. Phase 1 establishes the base fiber optic network topology and inter-connecting the existing 107 PSAPs, the Department of Public Safety building in Middletown and the DOIT data center. To that end, Phase 1 of the CPSSDN project is planned to be initiated in FY2010 and is scheduled for completion in FY2011. Phase 1 utilizes a fiber footprint that includes approximately 2000 miles of existing fiber installation as well as approximately 240 miles of newly constructed fiber pathways in a 6 interconnecting ring topology with DWDM technologies. Phase 2 of the CPSSDN, seeks to implement additional coverage and capacity of the CPSSDN, expanding coverage to an additional 411 public safety related locations so as to realize the anticipated cost savings, connectivity requirements and efficiency improvements. As with Phase 1, all connectivity will be accomplished via dedicated fiber optic cabling to the planned locations utilizing appropriate fiber optic transceivers. Topology will be a mixture of both hub and spoke as well as subtending rings. Each of these spokes or rings will connect to one of the 111 existing Phase 1 locations. Completion of Phase 2 will greatly enhance agency interoperability capabilities, data sharing and overall communications while improving constituent services and safety. Connecticut Education Network (CEN) Points of Int. No. of Counties Hsehd. Poten. Jobs Created Total Cost 74 8 318,876 374 \$34,457,541 The purpose of the CEN project is to provide improved access to broadband Internet connectivity, including network equipment and user support, to Connecticut's K-12 school districts, colleges and universities, and public libraries. These proposed sites do not directly connect to the existing CEN fiber backbone and face two major limitations: limited bandwidth capacity and lack of fiber redundancy. This project aims to deliver 100 megabits per second service to the community anchor institutions in Connecticut that currently lack this level of connectivity as well the redundancy necessary to ensure uninterrupted broadband access, including Connecticut's K-12 school districts, colleges and universities, public libraries and public computing centers. In addition, a partnership with Connecticut Public Television will provide significant advantages of lowering operating costs and providing higher, more stable bandwidth than is currently available to provide health, education and other information to a wide audience, including the very young and aged. The project would extend 675 miles of new fiber optics, install the necessary hardware

to support the 100 Mbps service, including three new hub routers and offer user support to all Connecticut Education Network members via the Connecticut State Department of Information Technology's Help Desk and 24/7 Network Operations Center. Connecticut Department of Information Technology POP2 Installation Points of Int. No. of Counties Hsehd. Poten. Jobs Created Total Cost 1 8 1,293,079 3 \$313,896 The purpose of this aspect is to reduce potential risk to public safety, health and economic impacts caused by a network outage. A second location (point-of presence) for all of the State's identified critical data circuits will be created to provide network resiliency in the event of failure in the private carrier networks or catastrophic loss of the State's Data Center at the Department of Information Technology in East Hartford, CT. DOIT provides network access and IT services that facilitate all of the State's government operations. These services include infrastructure and applications that support mission critical business functions for the State of Connecticut Executive Branch Government Agencies as well as the Judicial and Legislative branches of the State government. Examples of critical agencies that will directly benefit from this project include the Department of Emergency Management & Homeland Security, Department of Public Safety, Department of Motor Vehicles, Department of Public Health, Department of Revenue Services and the Department of Social Services, among others. The State network and Data Center provide access and support for an overwhelming majority of the State's computer systems and applications. These services and applications include Internet access (both inbound to the State's hosted websites and outbound for external connectivity), Statewide Email, access to the FBI's NCIC system and numerous Ecommerce applications.