Fact Sheet

Northern Tier Middle Mile Broadband Project

The Commonwealth of Pennsylvania has received a grant award of $28.8 million under the American Recovery and Reinvestment Act (ARRA) to undertake deployment of "middle mile" broadband infrastructure in the 32-county region north of Interstate 80. The project aims to promote broadband service in these primarily rural counties. The funding agency is the U.S. Department of Commerce, National Telecommunications Information Administration (NTIA), Broadband Technology Opportunities Program (BTOP). The grant recipient is the Governor's Office of Administration (OA).

BACKGROUND AND OVERVIEW

The commonwealth's ARRA broadband project builds on the state's existing microwave network, now used exclusively for radio traffic as part of the Pennsylvania Statewide Radio Network (PA-STARNet), supporting public safety and emergency communications by state agencies and first responders. The radio network operates in the 800 megahertz spectrum, and uses both high-profile sites and smaller microcell sites to provide 95% or more coverage of Pennsylvania's land mass. The statewide microwave network carries voice and data traffic from sites to the core network. With the transfer of responsibility for management and operation of PA-STARNet from OA to Pennsylvania State Police (PSP) on July 1, 2012, PSP's Statewide Radio Network Division is now responsible for implementing the grant project.

The existing microwave network operates at 50 megabits per second (Mbps). Originally circuit-based, it is being upgraded to use of Multi-Protocol Label Switching (MPLS) for greater effective throughput, automatic rerouting in case of path failure, and quality of service control and tuning. A Network Operations Center (NOC) in Harrisburg monitors the network around the clock, contributing to its 99.999% record of reliability and availability.

BROADBAND PROJECT

The ARRA funding allows the commonwealth to add a parallel 150 Mbps to the current 50 Mbps of network capacity, making it available to "last mile" broadband providers, including telecommunications companies and Internet Service Providers (ISPs), as well as to anchor institutions such as schools, colleges, hospitals, libraries, and public safety agencies. The project schedule calls for substantial parts of the network to be ready for use by the end of 2011.

The northern region of the commonwealth includes many rural areas classified as unserved or underserved by broadband connectivity. Through development of a middle mile regional wireless system, the grant promotes extension of commercial broadband services to a large area of the commonwealth where distance, topography, or lack of population density currently inhibit the necessary investment.

The additional microwave network capacity makes it possible for last mile providers to connect to the Internet or other network points of presence without the prohibitive investment necessary to create this infrastructure themselves. With this barrier to service delivery removed, commercial providers can build out broadband systems to homes and businesses. Anchor institutions can apply the available bandwidth to applications such as distance learning, record sharing, diagnostic image transmission, remote patient consultations, and improved communication among public safety agencies.

COVERAGE AREA

The targeted coverage area in the northern tier of the commonwealth includes the following 32 counties:

> Bradford, Cameron, Carbon, Centre, Clarion, Clearfield, Clinton, Columbia, Crawford, Elk, Erie, Forest, Jefferson, Lackawanna, Luzerne, Lycoming, McKean, Mercer, Monroe, Montour, Northumberland, Pike, Potter, Snyder, Sullivan, Susquehanna, Tioga, Union, Venango, Warren, Wayne, Wyoming

TOWER SPACE OPPORTUNITIES

The commonwealth leases space on its towers to support the broadband effort. Space may be available on approximately 150 towers owned by the commonwealth, many of them in the northern tier. Colocation of infrastructure on state towers for last mile providers helps limit the number of hops among external networks and accommodate more network traffic. PSP's Statewide Radio Network Division manages leasing of tower space through a contractor selected by competitive procurement.

CONTACTS

Broadband and Tower Services Information and Requests	Statewide Radio Network Division Online Web Form for Requests RA-RadioSiteServices@pa.gov 717.772.8005
Commonwealth Broadband Policy	Sue Suleski, Director of Broadband Initiatives, OA ssuleski@pa.gov 717.705.5462
Middle Mile Broadband Grant Management	Steven Kuller, Director, Statewide Radio Network Division skuller@pa.gov 717.772.8006
Middle Mile Broadband Project Management	Frank Yoder, Broadband Services Manager fryoder@pa.gov 717.425.5432
Middle Mile Grant and Budget Administration	Holly Caudill, Broadband Administrator hcaudill@pa.gov 717.425.7650

QUICK FACTS

Grant Award	$28,784,014 *Award Number:* NT10BIX5570017 *Recipient:* Commonwealth of Pennsylvania, Office of Administration *Awarding Agency:* National Telecommunications Information Administration *Legislation:* American Recovery and Reinvestment Act of 2009 (Public Law 111-5) *Grant Program:* Broadband Technologies Opportunity Program *Catalog of Federal Domestic Assistance (CDFA) Number:* 11.557
Broadband Project	Commonwealth of Pennsylvania Broadband Middle Mile Project: Enhancing Connectivity in Northern Pennsylvania *Total Estimated Cost:* $35,980,017 *Commonwealth Matching Funds:* $7,196,003 *Award Period:* February 1, 2010–January 31, 2013 *Extension:* Request to extend award period to August 31, 2013 granted by NTIA on January 30, 2013
Middle Mile Broadband Project Goals	Add parallel 150 Mbps microwave network capacity *Prospective Bandwidth Users:* Last mile providers and anchor institutions in northern tier counties *Target Uses:* Last mile provider backhaul and point-to-point networking *Target Results:* Broadband delivery in unserved and underserved areas *Start of Service Availability:* By end of 2011
Pennsylvania Microwave Network	Part of Pennsylvania Statewide Radio Network (PA-STARNet) *Switching Method:* Multi-Protocol Label Switching (MPLS) *Capacity:* Originally 50 megabits per second (Mbps) *Network Administration:* Full-time Network Operations Center *Reliability and Availability:* 99.999%
Recovery Act Award Summary	Recovery.gov Track the Money Award Summary