

8. Executive Summary of Project for BIP:

Global Protection Communications Systems LLC (GPCS), a New York State domestic public utility corporation approved by the New York State Public Service Commission to provide facilities-based inter-exchange telecommunications services since 2007, is seeking funding assistance in the amount of thirty-five million dollars (\$35,000,000) to make possible the company's Northway Fiber Optic Network that will bring state of the art all fiber optic based broadband connectivity to the approximately 233,000 residents and businesses of the North Country. The funding request represents 41.23% of the projected total allowed cost of \$84,886,089 required for building out the entire project. We are requesting 23% of this as a grant (\$19,523,800) and 18.23% as a loan (\$15,476,200).

GPCS, like the state of New York, recognizes that the Clinton, Essex, Franklin and Warren county areas are presently underserved with broadband for municipal, medical, residential and business customers. GPCS, with the funding assistance of this application, will enable delivery of broadband services to municipal, medical, residential and business customers, making it a key enabler of future business activities, as well as making the health, safety, and well-being of the citizens of this underserved area of paramount importance through the technological innovations that require high-throughput broadband services. GPCS understands that broadband, like any key utility is more than burying cable in underserved areas. Further, with existing communication companies in the area struggling with the same economic realities that businesses everywhere are that the development of one unifying system to cover the entire area makes sense from both an operational perspective as well as being economically viable.

The proposed funded service area includes a total census population of 233,182 in Clinton, Essex, Franklin and Warren counties encompassing 64 municipalities and passing approximately 18,500 business locations and 120,800 residential locations. Approximately 1,668 community anchor institutions, public safety entities, critical community organizations and critical infrastructure locations are passed and/or will be directly impacted by the project.

The system will be an all fiber optic network [REDACTED] delivering bidirectional speeds from 100Mbps to 10Gbps at the subscriber location. Where subscriber locations are uniquely remote a digital subscriber access multiplexer (DSLAM) will be installed to deliver fiber based services to the node connecting existing copper to the fiber backbone and giving even that most remote subscriber access to at least 3Mbps of connectivity.

All system components will be redundant and all GPCS switch locations will be connected to a self-healing fiber optic ring. All cabling will be installed underground to assure uninterrupted services during and after major weather related events or other natural or man made disasters. By deploying high strand count fiber optic cables throughout the proposed service area, GPCS is "futureproof" and positioned to take full advantage of the almost limitless capacity of fiber for tomorrows applications.

Services and applications that will be available to users in the proposed funded service areas include:

Next Generation IP service – Next generation VoIP, IPTV and high speed data

Network Storage – Unlimited anywhere-anytime remote storage for personal files

Data Warehousing – Real time backup and storage of sensitive data in multiple hardened locations for health care, public safety, local government and other critical infrastructure entities

FOREC – A GPCS composite suite of services for disaster management

Wireless Services Backhaul – Dedicated fiber optic facilities to support the demanding backhaul needs of the wireless services industry

DAS – Dedicated dark fiber to support the unique interconnection needs of this segment of the wireless services industry including design provisions for up to 130 wireless emergency phone locations along the Adirondack Northway

Telepresence – Bandwidth to support the most demanding combined interactive voice/video/data applications in real time

Telemedicine – Transport and sharing of files, test information and the virtual delivery of specialized medical services including linking all ACTION health care network facilities

Security – Cameras, traffic monitoring, and the ability to deliver preplanning data to first responders any time any where. Access control, SCADA and remote supervision in real time are additional assets of reliable bandwidth.

Environmental Data Gathering – Real time weather data gathering anywhere along the fiber route

Video Conference on Demand – The ability to enable any customer premise for instant two way conferencing

Distance Learning – Delivering high quality educational services to every resident

GIS – Interactive mapping and plotting of critical structures and services in support of tourism, emergency services and community planning

As a regulated public utility company GPCS filed a tariff with the NYS PSC in 2007 detailing offering of facilities-based inter-exchange telecommunications services and its compliance with FCC mandated non-discrimination, interconnection and competitively neutral business practices.

GPCS has developed multiple broadband initiatives – all of them focus on underserved areas, with a focus on making broadband services available to areas – but then also developing a high-fiber count distribution system that provides maximum flexibility and “future-proofs” any installed plant so that communities will have the ability to implement future innovations that require broadband infrastructure. With over 150 years of combined engineering and telecommunications experience the combined personal experience of the members of the management team assures timely and cost effective delivery of the proposed system.

GPCS projects that the availability of fiber optics and the associated large bandwidth availability will be very popular with both business and residence subscribers. It will allow them to receive video (both real time and national content) as well as access the Internet at bidirectional speeds not possible until now. Coupled with the many business

uses possible ranging from telemedicine, home based virtual business as well as distance learning for schools the projected penetration rate at the end of 5 years exceeds the 30% to 35% range forecasted in this application. A 2006 Commerce Department report determined that property values are 6% higher in communities where broadband is available. A national study of U.S. broadband consumers by RVA LLC Market Research and Consulting, released in June of 2009 very high-speed Internet - such as over fiber - ranked second only to landscaping and setting on a list of 23 amenities, ahead of features such as pools, home automation, shops, a fitness center, a dog park, a golf course, Wi-Fi at the pool area, day care or concierge services.

Small and home-based businesses will be, as a group, uniquely benefited from the ability to rapidly and reliably communicate from home or on the road. There are over 14,000 "Non-employer establishments (US Census)" in the four counties (as of 2006). Governor Patterson has stated that "seventy-eight percent of households with computers use some type of dial up service", a finding that shows New York is below the national average. A report from Connected Nation in February 2008 indicated that statewide 144,884 jobs could be created or saved annually by the deployment of broadband services. The four county area affected by this proposed project could see as many as 7,000 jobs directly affected by the presence or absence of broadband. On a more personal level, GPCS will be directly creating approximately 45 construction related jobs, employ approximately 70 additional contractor positions during construction and require approximately 35 mostly high tech jobs for its long term operations.

GPCS has looked at this area of New York State since 2007 with an eye toward any opportunity that would make the build-out of this area possible. This is the opportunity, perhaps the only opportunity, which the residents of the North Country of New York State will have to get connected in a meaningful and affordable way that allows them to enjoy the benefits of living in one of the most beautiful areas in the country and still be part of the world at large. Real broadband at an affordable price.