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CopperNet Systems, Inc.
331 Alden Rd • P.O. Box 358
Kearny, AZ 85137
[redacted]
http://www.coppernet.net

PROJECT NARRATIVE

This grant application is to improve the communications infrastructure for the remote and rural Town of Superior. This project addresses several issues of importance in the Town of Superior regarding broadband access to the Internet. Some the issues and challenges include lack of fiber optic connectivity, limited speeds for current broadband access, limited population to support funding of a deployment by a private company.

We believe that our approach addresses these issues, allowing CopperNet Systems Inc to deliver quality broadband access with symmetrical speeds exceeding 1Gbps and reliability comparable to that found in metropolitan areas. CopperNet will deliver a quality broadband connection to the residents, businesses, and municipal government in the Town of Superior that is not only affordable but also reliable.

This grant is necessary to help "kick-off" the project and lay the foundation for the future. We have strategically designed an initial deployment that will allow us to deliver FTTH and FTTB services.

Project Description and Timeline
"Infrastructure"

CopperNet currently delivers broadband access to the Town of Superior via Wireless Technologies. We are committed to providing service to the Town of Superior for years to come, we have been providing services in the area since 1998. The need for bandwidth continues to increase exponentially for services such as streaming video, remote office, cloud services, etc. This demand poses a critical problem for wireless technology due to its limitation in overall capacity. Our proposed project is to install last-mile fiber optic cable to deliver FTTH and FTTB. Listed below are some key points relating to our project and timeline.

Our solution to this ever-growing need for bandwidth is to begin last-mile deployment of fiber optic infrastructure in the community to support the businesses, residents, and government operations. The final product will be 1Gbps connections up to more than 10Gbps. Phase I and II of our project includes approximately 27000 ft of strategically placed 144 strand fiber optic cable. The installation will be aerial with splice/drop closures placed in such a way that we can continually grow the footprint until we reach 100% coverage in the Town of Superior.

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CopperNet Systems Inc has a shovel ready project that can be started immediately. By awarding this grant to CopperNet Systems Inc we will be able to improve the broadband access to the Internet for more than 3000 residents, 30+ business, and several anchor institutions and many small businesses in the area.

CopperNet has selected Distribution Design Consultants, Inc for project engineering and G & S Telcom for installation services. We have completed the engineering for the first phase of this project and therefore can start immediately following the award and funding of this grant. This will allow us to complete this initial phase of the project within four to six months. Phase II would begin shortly after and be complete within a year.

CopperNet is prepared to immediately provide a cash match of [redacted] to be used for qualifying project costs. We will also be providing [redacted] for ineligible project costs and contingency fund. CopperNet is committed to the support, maintenance, and evolution of this fiber optic network for the required minimum five years and beyond that into the foreseeable future.

We strongly urge the Arizona Commerce Authority ABDG Committee to consider our application. The absence of funding from this grant will seriously delay the deployment of infrastructure and have negative impact on the future growth opportunities in the Town of Superior. The limited population and subscriber base makes it extremely difficult to commercially invest in fiber optic infrastructure due to ROI limitations.

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Project Description and Timeline
"Development"

The general scope of this project is to deploy last-mile fiber optic infrastructure in the rural and underserved Town of Superior to provide broadband Internet access with symmetrical speeds of 1Gbps and beyond to the residents, businesses, and municipal government.

CopperNet is prepared to deploy an FTTH/FTTB solution utilizing the latest technology XGS-PON capable of speeds up to 10Gbps. Connections would originate from our Central Office Headend located at **33°17'24.51"N 111° 5'40.50"W** via Aerial Fiber Optic Cable.

We have selected two industry leaders to be our contractors for this project. Distribution Design Consultants Inc will be conducting our engineering analysis and applications for pole attachments while G & S Telcom will be our installation contractor responsible for the installation of the fiber optic cable.

Phase I of our project is shovel ready and is dependent on the receipt of this grant to stay on target for a timely deployment. Phase I will include the installation of core paths of 144 count fiber optic cable strategically placed to transition into Phase II. Phase I will provide connectivity to the business district in the Town of Superior as well as several anchor tenants. Phase II will include the necessary infrastructure to connect the homes of residents in the Town of Superior using XGS-PON FTTH Technology.

It is estimated that just over 3000 residents and approximately 40 businesses will benefit from this deployment. Additionally, this deployment will improve the **CRITICAL CONNECTIVITY** to the medical complex, Police and Fire Departments, retail outlets, and mining operations.

Furthermore, this deployment will increase the overall availability of services through a redundant route to the west along highway 60 and a new route to the east along highway 177 along with our legacy microwave network.

The Town of Superior is a rural and remote community with limited infrastructure. This grant will help the town grow and evolve technologically. It will improve the abilities of the medical complex by allowing them to offer additional resources

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such as telemedicine, the transfer of large files such as x-rays and medical charts. In the recent years the incumbent telco provider has suffered multiple fiber cuts resulting in complete loss of services to 911, cell phone service, Internet, etc. This will help mitigate that issue going forward. It will help local businesses stay connected more reliably. It will allow EMS services to remain available during an outage. It will prevent downtime for all by providing redundancy.

[redacted]

Type	Project	Applicant	GEOID
Rural	Superior	CopperNet Systems	04021000400