Grant Request Number	GRN-000196
Funding Program Name	Middle Mile Broadband Infrastructure Grant Program
Funding Request Name	Peninsula Fiber Network - Middle Mile - GRN-000196
Applying Organization	Peninsula Fiber Network, LLC
Applicant Name	Tammy Smith

Primary Applicant Type

Identify the primary applicant type:

Single Entity

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Primary Entity Type

Type of entity: Primary entity type, (A) a State, political subdivision of a State, Tribal government, technology company, electric utility, utility cooperative, public utility district, telecommunications company, telecommunications cooperative, nonprofit foundation, nonprofit corporation, nonprofit institution, nonprofit association, regional planning council, Native entity, or economic development authority; or (B) a partnership of two (2) or more entities described in (A).

What is the primary applicant's entity type?

Telecommunications Company

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Is parent/owner of applicant a foreign entity?

No

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Managerial Capability

Applicants shall submit to the Assistant Secretary one-page resumes for (a) all key management personnel and (b) all key personnel of subcontractors or other entities that will play substantial roles in building, managing, or operating the middle mile network built using Middle Mile Grant (MMG) Program funding.

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[redacted]

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Organizational Charts

Each applicant shall submit any necessary organizational chart(s) detailing all of its parent companies, subsidiaries, and affiliates.

[redacted]

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Organizational Details

Each applicant must also provide a narrative describing the applicant's readiness to manage a middle mile broadband network. This narrative should describe the experience and qualifications of key management set to undertake this project, the applicant's experience undertaking projects of similar size and scope, recent and upcoming organizational changes including mergers and acquisitions, relevant organizational policies, and ownership information consistent with 47 CFR § 1.2112.

This narrative shall denote who will own the assets at the end of award period. This response is

limited to 6000 characters as an open field narrative.

Financially healthy, expert managerial and technical staff, strong leadership, and a history of proven reliability, Peninsula Fiber Networks, LLC (PFN) is a high-valued broadband provider capable and poised to undertake the middle mile (MM) projects proposed in this "Infrastructure for Michigan Peninsulas and Critical Crossings" (IMPACC) application.

In 2004 PFN was created as a limited liability company taxed as a partnership whose members are Baraga Telephone Company (BTC) and Hiawatha Communications Inc. (HCI). Each member has 50% ownership stake. Neither owner has controlling interest. The companies who own PFN have served MI's Upper Peninsula (UP) communication needs for 100+ years. BTC is an incumbent local exchange carrier (ILEC) and competitive local exchange carrier (CLEC). HCI is the holding company for three operating ILECs: Hiawatha Telephone Company, Ontonagon County Telephone Company, and Midway Telephone Company.

Hiawatha Communications Inc (HCI)

[redacted]

[redacted]

Baraga Telephone Company

[redacted]

[redacted]

PFN's MM fiber optic network spans >5,470 fiber miles across MI, WI, and MN. Since Jan 2021, PFN invested >$5.5m in new network infrastructure. PFN recently announced with 123.Net, Inc., (123NET), a subrecipient in this application, two privately funded MM projects installing high count fiber in unserved areas from Bay City to Southfield and Lansing to Southfield.

PFN prides itself on service reliability, stable high-throughput, and a low latency self-healing network to help our customers provide reliable service to their end-users. PFN has state-of-the art carrier grade data transport services including optical transmission, next generation IP solutions, high volume Core Internet access, cellular backhaul, Next Generation 911 (NG911) Call Management System Services, tandem switching, and local exchange voice services to 433 unique customers. Customers include various telecommunication carriers and service providers, government, health care, education providers, and utility companies. PFN is the sole-source provider of Next Generation 911(NG911) Call Management System Services to 82 of 83 counties in MI and in Florence County, WI. This network is private, secure, redundant, monitored, includes IP availability, and exceeds the National Emergency Number Association (NENA) i3 standards.

[redacted]

PFN's 12-member management team holds over 350 yrs combined experience in: quality and civil engineering, project management, telecom policy development and regulatory affairs, and network security, engineering, operations. The management team and PFN's highly qualified 33 employees are prepared to successfully complete all phases of this proposed grant.

PFN oversees engineering, environmental assessment, permitting, construction, electronics, network operation and sustainability. Deployed projects include:

- Adding 1100 miles of fiber optic cable and electronics to PFN's network throughout MI, as a subrecipient of Reach-3MC II NTIA BTOP Grant.
- Extending MM fiber infrastructure to MI wireless service providers at 207 towers (44 towers pending).
- Building and maintaining 5,470 route miles of MM network.
- For 8 yrs. constructing redundant and resilient MM fiber loops for secure delivery of NG911

services to PSAPs serving 9,200,000 MI residents.

PFN's operations include an employee handbook, compliance with local, state, and federal permitting, employment laws, fair labor practices, a highly skilled workforce, workforce development expectations, interconnection policy, and pass through requirements for contractors.

Recently, PFN acquired last-mile provider, Winn Telecom, as a wholly owned subsidiary. Together we will provide full broadband service to unserved communities. The acquisition is complete, pending FCC approval.

123NET, an Internet Service provider for 25+ years, and a subrecipient in this application, is equally qualified and ready to manage this project if funded. 123NET 's staff are capable of designing, permitting, constructing, and supporting this expansion of new middle mile infrastructure.

123NET's three-member executive management team, oversees 230+ employees, 2,500+ unique route miles of network, services 3,500+ end-user locations, and operates the Detroit Internet Exchange (DET-iX), the largest fee-free internet exchange in the world. DET-iX connects >65 unique networks with peak traffic exceeding 850 Gbps.

For 20+ years, 123NET has enhanced MI's connectivity with projects of similar size and scope to those in this application, and for the past 2 years provided residential services. In 2022, 123NET added 10 new staff and anticipates 10-20 more to support Fiber to the Home network growth.

Ownership of assets in PFN's IMPACC application vary for each project. PFN and 123NET will share assets along each route according to the "Ownership of Assets Schedule."

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Form CD-511 (Certification Regarding Lobbying)

The applicant must upload a completed form that certifies that Federal funds have not and will not be used for lobbying in connection with this request for Federal financial assistance. A fillable Form CD-511 can be found in the MMG ZIP folder.

[redacted]

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SAM.gov Registration

Applicants are asked to upload a screenshot of their SAM.gov registration.

[redacted]

Executive Summary

Please describe how the applicant's proposal will advance the objectives of the MMG Program, as well as the specific objectives of outlined in the Notice of Funding Opportunity (NOFO);

An overview of the proposed route or service area(s), including information regarding rurality and socio-economic indicators in the area to be served by the proposed project.
This response is limited to 12000 characters as an open field narrative.

Throughout our nation the digital divide has had substantial effects on the economic development of rural homes and businesses. Nearly 1.24m Michigan households (31.5%) do not have permanent, fixed internet connection at home and nearly 31% of households earning less than $20,000 annually (197,000) do not have a broadband connection. Broadband now serves as the definitive infrastructure driving the global economic transformation. During the COVID-19 pandemic the nation discovered how a lack of broadband access is a barrier to education, health care and emergency services. Several Michigan counties being served in this proposal have high health outcomes scores suggesting poor access to health care, poor health behaviors, and poor social and economic conditions. Access to reliable and affordable broadband internet can play a positive role in reversing these health outcomes for Michiganders.

Over the past decade Michigan has been actively improving the state's connectivity ecosystem. The past and present Governors made broadband a priority for Michigan and adopted a Michigan Broadband Roadmap with specific goals, objectives, and strategies to address connectivity deficiency in Michigan. Michigan, alongside the National Telecommunications and Information Administration (NTIA) is prioritizing expansion and extension of middle mile infrastructure to reduce the cost of connecting unserved and underserved areas to the backbone of the internet, and to promote broadband connection resiliency through the creation of alternative network connections that can be designed to prevent single points of failure on a broadband network.

Peninsula Fiber Network, LLC (PFN) has prepared the enclosed funding application for the NTIA, Enabling Middle Mile Broadband Infrastructure Program's consideration. Our project titled Infrastructure for Michigan's Peninsulas and Critical Crossings (IMPACC) includes three routes that traverse Michigan's lakes and unserved counties and towns bringing much needed middle mile infrastructure for our state and into rural counties serving over 35,000 homes in need of broadband internet connectivity.

Peninsula Fiber Network (PFN) collaborated with Michigan's High-Speed Internet Office (MIHI), 123.Net, Inc. (123NET) our subrecipient in the application, state departments, federal agencies, local governments, community institutions, health providers, educational institutions, economic development organizations, US Senate and Congressional members, state elected officials, last-mile providers, and tribal organizations to develop IMPACC. These three distinct routes are detailed below.

Route #1 Lake Michigan Crossing – Chicago Connection

- 2 undersea fiber cables from Benton Harbor to Chicago
- Benton Harbor to IXC in Byron Center

Route #2 Lake Michigan Crossing – Peninsula and Island Connection

- 1 Undersea fiber cable from Gulliver to Beaver Island
- 1 Undersea fiber cable from Beaver Island to Charlevoix
- On land from Charlevoix to IXC in Gaylord

Route #3 Port Huron to Flint

- On land from Port Huron to IXC in Flint

Unique to Michigan's geography, the undersea lines provide alternative routes to connect Michigan to Chicago and the Upper and Lower Peninsulas. Fiber installed below the lakebed is less likely to be impacted by severe weather patterns and other catastrophic events, making it ideal for redundancy and resiliency.

Route #1: The undersea fiber connection across Lake Michigan to Chicago from Benton Harbor, MI and St. Joseph, MI, creates a shorter, redundant, and more reliable MM route to Chicago, one of the largest IXC's points. Michigan's unique geography means fiber routes must traverse around Lake Michigan where the risks of being cut are high and occur multiple times a year. Installing undersea fiber provides additional economic security for Michigan and our nation. Carriers in Michigan will have a fiber connection to Chicago with access to the lowest cost wholesale core Internet. This route also extends through unserved/underserved areas of southwest rural Michigan to an IXC facility in Byron Center, MI going through Berrien, Van Buren, and Allegan Counties. A recent broadband study in Berrien County by Merit, Inc, stated 64% of townships in southwest Michigan do not have access to 25/3 Mbps broadband. The study also indicates that in 76% of the 1,062 census blocks, customers indicated they could not obtain broadband service even though the FCC map considered the census block served.

Route #2 begins in Gulliver, MI in the Upper Peninsula, travels undersea and makes landfall at Beaver Island, MI then continues undersea to Charlevoix, MI. After landfall in Charlevoix, the route continues south and east through sections of unserved towns to reach an IXC point in Gaylord. This route combines national security interests with access to middle mile for rural Michigan. Currently the only fiber access between Michigan's upper and lower peninsula's is across the Mackinac Bridge. Any redundant connection today must traverse around Lake Michigan which adds a tremendous amount of latency. This Lake Michigan crossing would add a much needed reliable, redundant route between the two peninsulas. It also provides much needed middle mile access to multiple communities like remote and isolated Beaver Island and to last mile providers in northern Michigan.

Route #3 Port Huron to Flint. This route traverses into unserved and underserved areas in Lapeer, Macomb, St. Clair, and Genesee counties to reach an IXC in Flint, MI. St. Clair (56/83) and Genesee (80/83) counties have some of the highest health outcomes represented in this project potentially attributed to the lack of 25/3Mbps broadband service.

PFN's IMPACC Project was developed to meet both state and NTIA MMG program goals.
PFN makes a binding commitment to connect middle mile infrastructure to last mile networks that provide or plan to provide broadband service to households in unserved areas, and to offer wholesale broadband services at reasonable rates on a carrier-neutral basis.

PFN also commits to NTIA's statutory criteria by demonstrating fiscally sustainable middle mile strategies as evidenced in the Pro Forma, to offer non-discriminatory interconnect to terrestrial and wireless last mile providers and to all others making a request as supported by our interconnect policy, to work with the terrestrial and wireless last mile providers described in this proposal, and others who show interest, and to support national security interests of our border crossings.

This project has a total budget of $87,509,579.61 with a federal funding request of $61,256,705.72 and a 30% non-federal cash match of $26,252,873.89

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Level of Need

A description of the level of need in the proposed service area(s), including but not limited to communities considered unserved and/or underserved in the proposed service area(s), discussion of the competitive landscape in the area, variations among service areas if there are any, or the general economic conditions in the proposed funded service area.

This response is limited to 12000 characters as an open field narrative.

PFN's middle mile (MM) projects will provide ultra-low latency high capacity and reliable MM connectivity in un/underserved areas in MI, potentially lower cost to end users due to competitive MM markets, provide economic opportunity by strengthening educational, health and workforce opportunities, and create partnerships with end user providers deploying advanced services to the end user. These factors are present in the routes proposed in PFN's Infrastructure for Michigan Peninsulas and Critical Crossings (IMPACC) application.

Route #1 Lake MI Crossing - Chicago Connection
Carriers in MI have a fiber connection to Chicago for access to the lowest cost wholesale core Internet. MI's unique geography requires fiber routes to travel around Lake MI where risks of being cut are high and occur multiple times a year. An undersea fiber connection across Lake MI to Chicago from Benton Harbor and St. Joseph, MI creates a shorter, redundant, and more reliable MM route to Chicago. This route combines a water crossing with a MM build through un/underserved areas of southwest rural MI to an IXC facility in Byron Center, MI.

The land route from Benton Harbor to Byron Center traverses through Berrien, Van Buren, and Allegan Counties. A recent broadband study in Berrien County (Co.) by Merit, Inc, stated 64% of townships in southwest MI do not have access to 25/3 Mbps broadband. The study also indicates that in 76% of the

1,062 census blocks, customers indicated they could not obtain broadband service even though the FCC map considered the census block served. The MM route proposed by PFN makes landfall in Benton Harbor, MI the largest city in Berrien Co. that has a 39% poverty rate in the public school district as calculated by the US Census Bureau in 2020. Today, 14 end user providers serve Berrien Co. with satellite, fixed wireless, DSL, fiber, cable, and mobile wireless technologies (various technologies) at 1000Mbps to 3 Mbps/1.5 Mbps.

Van Buren Co. (VBC) has a population of 75,587 and a broadband survey by the Board of Commissioners identified where RDOF and ReConnect funds are being used to connect 55% of the unserved locations in the area. However, 14% of the county is without a plan for providing broadband. The Michigan Broadband Map (MBM) identifies 6,972 households with access to broadband at speeds less than 100/2 Mbps. Cities along PFN's MM route include Bangor, Lawrence, Hartford, Benton Heights, Breedsville, and Grant Junction. US Census Bureau data show these school districts have poverty rates from 17% to 23%, higher than MI's 13% poverty rate. Today, 15 providers offer broadband in VBC with various technologies at 1000Mbps to 3 Mbps.

Neighboring Allegan Co., population 120,950, has not yet developed a plan to address the underserved 10,971 households categorized as having less than 100/10Mbps in the MBM. The county formed a Broadband Action Work group and an active broadband survey, but broadband plans are not complete. Today, 17 end user providers serve Allegan Co. at speeds 1000Mbps to 3 Mbps.

The 2022 County Health Rankings and Roadmap (CHRR) compiled by the University of Wisconsin Population Health Institute evaluated factors that improve overall health and opportunity within county. These factors include quality clinical care, access to quality education, and living wage jobs. Berrien Co. scored 38 and VBC scored 53; lower numbers indicate better health outcomes for the community. Creating additional high-speed broadband capacity, and increasing broadband accessibility improves the overall health outcome of this region by increasing access to health care through telemedicine services, educational opportunities with increased student subscribership, and the creation of more jobs with expected expansion of the economy that follows broadband growth.

Along this southwest MI route, end user providers 123NET and Bloomingdale Communications (BC) have committed to utilizing this MM infrastructure to provide end user service throughout the region. In Allegan, VBC and Kalamazoo Co. BC will bring Fiber to the Premise (FTTP) project to 3,200 unserved locations with 1/1Gbps completing its USDA-RUS Reconnect Round 1 & 2 awards by utilizing PFN's MM infrastructure. 123NET will also offer FTTH service to 1675 un/underserved locations within 500 feet of this route in Allegan, VBC, Berrien, and Kent Co. at speeds up to 1Gbps as identified on the MBM.

Route #2 Lake MI Crossing – Upper Peninsula with Beaver Island Connector
Route #2 combines national security interests with access to MM infrastructure for rural MI. With the only fiber access between MI's peninsulas on the Mackinac Bridge this route adds a much needed reliable, redundant route without adding a tremendous amount of latency. Route #2 also provides

much needed MM access to multiple communities and last mile providers in northern MI.

The population in Antrim Co. is 23, 813 in the 2020 census. Within the county, over 50 census blocks in the southeast region of Antrim Co. are recognized by the MBM as lacking 25/3 service; most of these blocks have a density of 11– 50 households per square mile (h/psm), with 100h/psm in some areas. Antrim Co. has been active in prioritizing broadband access and in a recent co. survey of public officials over 70% of respondents said "yes" in response to the question, "Does your community see a need for more broadband?".

Charlevoix Co. has few areas lacking 25/3 service, it provides connection for Beaver Island to the mainland and then to an IXC in Gaylord. Beaver Island is the largest and most remote island in Lake MI with 600 year-round residents. It supports a K-12 school, medical center, airports, commercial district, and collegiate biological station. The island is served by TDS Telecom who utilizes a microwave MM link to the mainland. This backhaul fails to keep up with population growth and increased usage. Inclement weather and network issues impact the broadband availability on the island leaving residents without access to 911 emergency service. While the island health clinic employs nurse practitioners, residents must visit the mainland to see a doctor. Once deployed, PFN's MM will give providers access to high capacity, low latency MM infrastructure to support telemedicine services, relieving residents from traveling 2+ hours to the mainland. The 2022, Michigan Health IT Roadmap "Bridge to Better Health" Report compiled by the MI Dept. of Health and Human Services acknowledges that "the coordination and delivery of health care for Michiganders, especially for remote or emergency medical service providers, relies upon reliable and accessible internet access".

Utilizing various technologies, 15 ISPs serve Charlevoix Co. with broadband at 6/1 Mbps to 250/250Mbps. Antrim Co. has 15 ISPs offering service at 1.5/1.5 Mbps to 100/5 Mbps.

In Charlevoix and Antrim Co., Cherry Capital Connection and Agri-Valley Services (AVS) have committed to serving 16,196 locations with FTTH technology and 5837 locations with fixed wireless service utilizing licensed spectrum. TDS Telecom has also committed to utilizing the direct MM connection to expand broadband service to 1,084 unserved and underserved locations on the island.

Route #3 Port Huron to Flint

The route begins in Port Huron and traverses into unserved and underserved areas in Lapeer, Macomb, St. Clair, and Genesee counties to reach an IXC in Flint, MI.

St. Clair Co. is predominately rural with a population 160,053 and sits at the Canadian border. The Port Huron Area School District according to the US Census has a poverty rate of 24%, significantly higher than the statewide poverty rate of 13%. Utilizing various technologies, 13 providers offer broadband services at 1.5/2 Mbps to 1000/1000 Mbps. Even so, significant portions of this county lack access to 25/3Mbps broadband service as identified by the MBM.

The population in Lapeer Co. is 88,513 is a densely populated urban and sparsely populated rural county. Connected Nation completed a broadband survey 2020/2021. With 1,845 residents responding it was clear gaps of fixed broadband coverage exist. Lapeer Co. issued another RFP for a broadband survey, pre-engineering, and feasibility study in 2022. In it, Lapeer Co. notes FCC service area coverage maps are inaccurate and shared a map depicting fixed, terrestrial, non-mobile broadband coverage that when contrasted with the FCC coverage data reflects large swaths of under and unserved areas in the county. Utilizing various technologies, 15 ISPs offer broadband service ranging from 1.5/.2 Mbps to 1000/1000 Mbps.

Genesee Co., population 404,208 is in mid-MI and is the end point for this project with the fiber connection to the IXC. Genesee Co. included broadband infrastructure in its 2021 Annual Action Plan and recognized 100% of the region is covered by broadband when wireless connections are included. The county is advocating for more reliable wired broadband infrastructure to improve opportunities for businesses and individuals. The city of Flint is the county seat and has a 6.7% unemployment rate as compared to the State of MI's 4.1% unemployment rate. The Flint City School District, according to the US Census, has a 43% poverty rate impacting families in this area and their ability to subscribe to enhanced broadband services. While this urban county may have sufficient broadband coverage, PFN's additional MM capacity provides opportunity for rates to decrease for end users as ISPs capitalize on increased MM availability. Utilizing various technologies, 22 ISPs provide broadband service at .768/.0384 Mbps to 1000/1000Mbps.

In the 2022 CHRR, factors that improve overall health and opportunity within a county were evaluated. These factors include quality clinical care, access to quality education, and living wage jobs. Counties scored: Lapeer 43, Genessee77, St. Clair 61; lower numbers indicate better health outcomes for the community. Creating additional high-speed broadband capacity, and increasing broadband accessibility improves the overall health outcome of this region by increasing access to health care through telemedicine services, educational opportunities with increased student subscribership, and the creation of more jobs with expected expansion of the economy that follows broadband growth.

123Net has committed to serving 2575 end users within 500 feet of the proposed MM route designated as un/underserved on the MBM. This FTTH service will offer broadband speeds from 250Mbps to 1Gbps. AVS will expand their fixed wireless offering in the City of Lapeer, Lapeer Co., St. Clair Co., and surrounding areas considered un/underserved today. AVS will utilize the proposed MM for backhaul transport to feed selected fixed wireless tower sites offering speeds ranging from 10 /2 Mbps to 35 /3 Mbps.

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State Collaboration Acknowledgement

NTIA strongly encourages prospective non-state applicants to coordinate and consult with the State Broadband Office or other coordinating body located in the jurisdiction in which the eligible entity proposes to deploy middle mile infrastructure to ensure that the proposal is consistent with the

state's broadband plan and priorities. Please confirm collaboration and consultation.

Do you confirm collaboration and consultation with the appropriate organization?

Yes

———

State and Local Collaboration Narrative

Please provide information on the applicant's coordination with applicable State, Territory, Tribal, and local governments, including their awareness of the proposed project and any potential impact to respective service areas; and

Information regarding the applicant's involvement and coordination with community organizations or other relevant partners in the proposed service area.

This response is limited to 6000 characters as an open field narrative.

Peninsula Fiber Network (PFN) collaborated with Michigan's High-Speed Internet Office (MIHI), state departments, federal agencies, local governments, community institutions, health providers, educational institutions, economic development organizations, US Senate and Congressional members, state elected officials, and tribal organizations for the "Infrastructure for Michigan Peninsulas and Critical Crossings" (IMPACC) application. They provided insight on infrastructure needs, key issues, permit and planning considerations, as well as overall support for the project.

MIHI was instrumental in coordinating state and federal agencies during the development of this entire application. Key leaders and staff from Michigan's Department of Labor and Economic Opportunity, Department of Natural Resources, State Police, Department of Environment, Great Lakes, and Energy, Department of Technology, Management and Budget, Department of Transportation, and the Blue Water Bridge Authority were consulted on the IMPACC projects. Agencies engaged in detailed discussion with PFN on planning for permits, easements, state, and local coordination needed for each route, state and Federal statues governing bridges, waterways, environmental, and historical preservation. This application includes letters of commitment, support, or acknowledgement from various collaborators which point to PFN's positive performance history and their willingness to prioritize the implementation of the proposed middle mile (MM) routes. This collaborative effort on IMPACC will further the achievement of Michigan (MI) Governor Gretchen Whitmer's broadband goals; the first of which is to ensure high-speed internet is available to every household, business, anchor institution, and community in the state.

Aside from state and federal agencies, PFN engaged community stakeholders. Detailed below, PFN acquired their support in meetings on proposed routes, drawing on existing relationships, and engaging existing local broadband advocates.

Route #1 Lake Michigan Crossing – Chicago Connection Berrien County Public Safety supports MM for emergency services and a redundant connection to regional state police towers. The Illinois State Office of Broadband acknowledges PFN's desire to bypass congested fiber land routes to connect MI and IL and their willingness to collaborate. US Rep. Fred Upton, Senator Aric Nesbitt and Representative Beth Griffin acknowledge the risk to MI's economy if a redundant fiber to the country's largest IXC is not built and an opportunity for MI to secure its borders for national security purposes. Senator Kim LaSata wants the MM to facilitate lower costs for end-users in this historically un/underserved area. End user provider Merit Network will utilize the MM route to shorten its backhaul by 60 miles, improving capacity and connectivity for MI's universities to the National Research Network in Chicago.

Route #2 Lake Michigan Crossing – Peninsula and Island Connection The Beaver Island Rural Health Clinic (BIRHC) is the sole provider of medical services on Beaver Island (BI). Current broadband connectivity does not support telemedicine services, so residents travel to the mainland for doctor visits. Once backhaul capabilities via fiber optic cable are deployed to the mainland BIRHC can increase telemedicine services for residents and leverage MM to apply for BEAD funding allocated for telemedicine projects.

The Beaver Island Chamber of Commerce, Beaver Island Association (BIA), St. James and Peaine Townships, and Beaver Island Community Schools offer their full support. Current lack of reliable broadband drives off residents and tourists needing more connectivity while the proposed application complements their broadband advocacy efforts, supports their plan to seek BEAD funding for FTTH and telemedicine broadband projects, aides in attracting employees, creates educational opportunities, and environmental research at the Island's Biological Station and Great Lakes Research Center. C.C.E. Central Dispatch on the mainland, notes a dependable backhaul ensures constant access to 911 services something not available today. This project compliments Antrim County Commission efforts to obtain ubiquitous broadband service and facilitates use of their ARPA dollars. End-user provider Marq6, Congressman Jack Bergman, State Senator Wayne Schmidt, InvestUP and Northern Lakes Economic Alliance state economic and educational benefits for northern MI and UP. Merit Network, an end user provider, will support its island customers Central Michigan University and Michigan State Education Network with 10Gbps to 400 Gbps and direct connect to its mainland infrastructure. Sault Ste. Marie Tribe of Chippewa Indians will leverage this MM project to connect tribal members along the route to reliable affordable internet, utilize the redundant route connecting the peninsulas, and integrate their broadband plans from the NTIA's Tribal Broadband Connectivity Program.

Route #3 St. Clair River Crossing – International Connection St. Clair County 911 Central Dispatch, Blue Water Bridge (BWB) Director, Amy Winn, and Congresswoman Lisa McClain support redundant fiber across the St. Clair River to protect the BWB and continued operation of the international border crossing, ensure seamless communication with emergency services should infrastructure fail, and to create more affordable end-user access to high-speed broadband.

Route #4 Detroit River Crossing – International Connection City of Detroit's Chief Information Officer, Art Thompson acknowledges the importance of MM capacity for City of Detroit residents. Historically undersubscribed, MM increases opportunity for end user connectivity lowering subscriber prices, and creates educational and economic opportunity, ensures continued security and operation at the international crossing. Congresswoman Brenda Lawrence notes MM capacity will help remedy the existing digital divide.

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Will the project connect middle mile infrastructure to last mile networks that provide or plan to provide broadband service to households in unserved areas?

Yes

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Is the project connecting non-contiguous trust lands?

No

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Do you commit to offering wholesale broadband service at reasonable rates on a carrier-neutral basis?

Yes

———

The eligible entity adopts fiscally sustainable middle mile strategies. This strategy should be described in the Budget Narrative.

Do you attest to this?

Yes

———

The eligible entity commits to offering non-discriminatory interconnect to terrestrial and wireless last mile broadband providers and any other party making a bona fide request. This policy will be described in the Interconnect Policy.

Do you attest to this?

Yes

———

The eligible entity identifies specific terrestrial and wireless last mile broadband providers that have(i) expressed written interest in interconnecting with middle mile infrastructure planned to be deployed by the eligible entity; and ii) demonstrated sustainable business plans or adequate funding sources with respect to such interconnection. This may be demonstrated in the Level of Need narrative of the Exec Summary.

Do you attest to this?

Yes

———

The eligible entity has identified supplemental investments or in-kind support (such as waived franchise or permitting fees) that will accelerate the completion of the planned project. Such acceleration may be described in the Project Timeline narrative.

Do you attest to this?

No

———

The eligible entity has demonstrated that the middle mile infrastructure will benefit national security interests of the United States and the Department of Defense. The benefits may be explained in the Benefitting National Security Interests Narrative.

Do you attest to this?

Yes

———

Please describe:

Michigan's ability to utilize redundant routes as a border state keeps our nation secure and secures the US's economic partnership with Canada, our second largest trading partner.

In Route #1, the undersea lines provide alternative fiber routes to connect Michigan to one of the largest IXC's in Chicago. Today, fiber routes traverse around Lake Michigan with elevated risk of being cut, which occurs multiple times a year. Should something happen at these congested meet points, the economic damage to our nation would be mighty. These undersea cables provide a more secure fiber solution, less likely impacted by severe weather, construction and other catastrophic events, making it ideal for redundancy and resiliency.

The only fiber access between Michigan's upper and lower peninsula's is across the Mackinac Bridge, which is at capacity and often impacted by weather. A major weather or catastrophic event would interrupt state and national economy, and impact public safety's ability to protect our state, and the international border or the Soo Locks in the UP. Michigan needs a diverse route connecting our Peninsulas and Route #2's Lake Michigan crossing would add a redundant and reliable route, especially for 911 call handling and emergency communication.

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Project Duration

Number of Years

5

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Project Timeline Narrative

The narrative requires the Applicant to describe a project with critical path, including key milestones for implementation of the project, preparations, and risk factors; and a capital investment schedule evidencing that the applicant will complete build-out and the initiation of service within five years of the date on which the entity receives the grant and will meet interim buildout requirements set forth herein and in any other binding document.
If the project is able to be accelerated with supplemental investments or in-kind support to meet a statutory purpose, this should be explained.

This response is limited to 6000 characters as an open field narrative.

The proposed 5-year project involves the placement of approximately 535 route miles of middle-mile fiber, purchase and installation of Dense Wave Division Multiplexing (DWDM) optical transport equipment at thirty-six locations, and IP/Router equipment at 26 of these same locations. The projects proposed 535 route miles of fiber and logical network will be incorporated into multiple existing networks that exceed 9,570 route miles of fiber, connecting at carrier neutral aggregation points, to provide middle mile access and ultimately serve end users throughout the state of Michigan.

Peninsula Fiber Network (PFN) and 123NET intend to group all outside plant (OSP) project areas into a single contract to keep construction costs as low as possible and will have multiple construction crews working simultaneously to support the proposed timeline. Cost effectiveness of the project will be assured through a process of competitive bidding for contractors to respond to plans and specifications prepared by PFN's and 123NET's engineering consultant, in coordination with internal engineering and management staff. Rural utilities service (RUS) standards will be utilized to design the fiber network and a unit-based approach to the staking sheets/OSP design will minimize the prospect of cost overruns.

Project activities will be performed on a parallel track; the detailed OSP design will be prepared concurrently with coordination of agencies associated with environmental approval (EA), historical and archaeological concerns and all requirements of construction permitting.

Construction of the routes will begin in the order cleared for construction and built in parallel using multiple construction crews where feasible. The proposed timeline reflects a single "window" within which all the routes are anticipated to be completed.

As permitting, EA and other rights-of-way activities can have an impact on any OSP construction project, PFN and 123NET understand the importance of frequent communication with relevant federal,

state, local and tribal entities to ensure that all necessary clearances are obtained in a timely manner.

Whenever possible, electronic equipment will be installed in existing COs/huts/cabinets with available space and power, which will allow PFN and 123NET to install some equipment immediately upon arrival. The application assumes the construction of twenty-one new COs/huts/cabinets, requiring land acquisition, placing prefabricated huts/cabinets and ancillary equipment (necessary power and racking for the equipment). The construction of the COs/huts/cabinets will be performed on a parallel track. The process of procuring new COs/huts/cabinets will begin in the first four months of the project to ensure that they are installed and ready for equipment installation ahead of equipment delivery, which is anticipated to occur in months twelve through thirty.

Due to extended lead times caused by the current state of supply chains, electronics equipment and OSP materials will be selected and ordered early in the project. The equipment orders will be placed within the first six months of the project and OSP materials will be ordered within the first six months whenever possible. Lead times have been observed to range from six to twenty-four months especially for specialty items, such as undersea optical fiber cables. Assuming the longer end of this timeframe, this will allow for at least thirty months to complete equipment installation, turn-up, and test. Allowing six months for initial OSP materials delivery will allow OSP construction to begin in month twelve.

The order of implementation depends on when equipment is received as well as which new-build routes can be completed first but will focus on completing the edge sites and an initial ring establishing redundancy for the edge sites and POPs on that route. Then the additional routes and rings will be filled in as equipment is received and newly built routes are completed with an emphasis on getting as many potential providers connected to the network as soon as possible.

The following project timeline lists the major project activities and key milestones. Additional information on specific items can be provided upon request.

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Project Timeline File

Applicants are asked to upload a timeline which will denote key milestones for implementation of the project, including but not limited to field survey, network design, equipment/material procurement, environmental assessment, permitting, construction, network testing, network activation and completion.

[redacted]

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Is an extension being requested?

No

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Special Rules for Tribal Governments and Native Entities

The Infrastructure Investment and Jobs Act permits the Assistant Secretary, in consultation with Tribal governments and Native entities, to waive, or specify alternative requirements, in connection with most directives governing the MMG Program if the Assistant Secretary finds that waiver or modification of the requirement is necessary for (a) the effective delivery and administration of middle mile grants to Tribal governments or (b) the construction, improvement, or acquisition of middle mile infrastructure on trust land.

Is a waiver or alternative requirements requested?

No

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[redacted]

[redacted]

[redacted]

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Climate Resiliency

Please demonstrate that the applicant has sufficiently accounted for current and future weather- and climate-related risks to new MMG Program infrastructure projects. In particular, each applicant should clearly demonstrate how it is conducting the items listed in III.K in the NOFO.

This response is limited to 6000 characters as an open field narrative.

The Peninsula Fiber Network's (PFN) proposed MM project occurs in the Midwest National Climate Assessment region. The project area has large seasonal changes in temperature. The warm humid summer and cold winters are tempered slightly by the presence of Lake Michigan. The project area

receives significant precipitation throughout the year, but current patterns suggest a decrease in annual moisture. The temperature has risen by 3° since the beginning of the 20th century. The increase is expected to continue during this century. Heavier winter and spring precipitation is expected to result in higher flood risk during spring. Evaporation due to higher temperatures in the summer months will increase the likelihood of drought conditions and cause changes in the water levels of the Great Lakes. PFN has operated in the area for 18 years, and its parent companies have operated in the region for over 100 years, and all have experience with the weather variations forecast in the NOAA State Climate Summaries. The summaries for Michigan indicate flooding, periods of drought, and decreasing water levels in the Great Lakes and are not new to the project area. For land routes, PFN has chosen to construct mostly buried plant and place cabinet sites that are outside any identified floodplain or wetland areas to mitigate some of these conditions. Additionally, for the underwater routes, PFN will burry cable under the lake and riverbeds further protecting the middle mile infrastructure from the effects of climate change.

PFN closely follows weather events and has included extreme temperatures, flooding, and receding water levels in its disaster recovery plan. Management reviews the plan annually and after every triggering event to ensure that service interruptions are kept at a minimum and that staff is aware of best practices. Also, after every triggering event, PFN surveys equipment in affected areas and completes necessary repairs. These actions ensure that the infrastructure built using capital awarded through NTIA's middle mile grant program will remain usable for 20 years.

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Civil Rights and Nondiscrimination Law Compliance

Prior to distributing any MMG Program funding to a prospective awardee, NTIA will require the prospective awardee to agree, by contract or other binding commitment, to abide by the non-discrimination requirements set forth in III.J in the NOFO.

Do you agree to abide by the non-discrimination requirements?

Yes

———

Certification of Technical Capability

Each applicant must supply a certification attesting that it is technically qualified to complete and operate the proposed project.

[redacted]

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Interconnect Policy

The Applicant must describe in detail the nondiscrimination, interconnection, and network management practices that would be adopted for the project facilities. The Applicant should describe how it will comply with nondiscrimination and interconnection obligations, particularly with connectivity to the public Internet and physical interconnection for the exchange of traffic. In addition to describing network management practices, the Applicant should disclose any practices in place to block access to illegal or harmful content.

This response is limited to 6000 characters as an open field narrative.

Peninsula Fiber Network (PFN) complies with NTIA Non Discrimination and Interconnection provisions specified in the Notice of Funding Opportunity Middle Mile Grant Program; Funding Opportunity Number NTIA-MMG-2022 (May 13th, 2022, and subsequent amended notices).

PFN commits to the following obligations:

1. Adhere to the principles contained in the FCC's Internet Policy Statement (FCC 05 151, adopted September 23, 2005) or any subsequent ruling or statement:

a. Consumers are entitled to access the lawful Internet content of their choice.

b. Consumers are entitled to run applications and services of their choice, subject to the needs of law enforcement.

c. Consumers are entitled to connect their choice of legal devices that do not harm the network.

d. Consumers are entitled to competition among network providers, application and service providers, and content providers.

2. Not favor any lawful Internet applications and content over others.

3. Display any network management policies in a prominent location on the service provider's web page and provide notice to customers of changes to these polices.

4. Connect to the public Internet.

5. Offers interconnection, where technically feasible without exceeding current or reasonably anticipated capacity limitations, at reasonable rates and terms to be negotiated with requesting parties.

All the preceding obligations shall be subject to the needs of law enforcement.

Open Access

PFN shall negotiate in good faith with all potential service providers, including public, private, non-profit and other parties, making a bona fide request for interconnection or wholesale services.

PFN Network Management Policies

PFN employs standard best effort Internet delivery policy to ensure any entity connected, directly or indirectly, to PFN's fiber backbone may access lawful Internet content and web-based applications,

subject to the needs of law enforcement.

https://www.pfnllc.net/

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Technical Overview

Please describe targeted last mile service objectives, including last mile service provider letters of commitment, agreements, or contracts; and a description of the proposed service offerings, including the pricing of the services to be offered over the proposed facility.

This response is limited to 6000 characters as an open field narrative.

Peninsula Fiber Network (PFN) has identified terrestrial and wireless last mile providers interested in interconnecting with PFN's proposed middle mile (MM) infrastructure, satisfying one of NTIA's statutory requirements for this application. These providers have expertise in broadband deployment and successfully operate in rural, suburban, and metro regions in Michigan. They have worked collaboratively with PFN to identify interconnection points as described in the Technical Capabilities, Data Submission Specification section of the application and have demonstrated sustainable business plans and operations that will benefit from the use of enhanced MM facilities to offer enhanced broadband services to over 35,000 end-users. 123NET, Agri-Valley Services (AVS), Bloomingdale Communications (BC), Cherry Capital Connection (CCC) and TDS Telecommunications (TDS) have committed to utilizing the proposed middle mile infrastructure as detailed below by route.

Lake Michigan Crossing – Chicago Connection
BC provides telecom services to 4,000+ customers in rural Allegan, Kalamazoo, and Van Buren counties. By utilizing PFN's proposed MM in Allegan and Van Buren counties, BC will complete a $12 million Fiber to the Premise (FTTP) project to 2,200 unserved locations with 1/1Gbps as part of their USDA-RUS Reconnect Round 1 award. BC will build a $6.5 million FFTP network in Allegan, Kalamazoo, and Van Buren Counties as part of BC's USDA-RUS Reconnect Round 2 award to serve1,000 unserved

[redacted]

123NET is an experienced MM and last mile provider based in Michigan. They provide internet service to1800+ end users and are a subrecipient in this application. 123NET will offer FTTH service to 1675 un/underserved locations within 500 feet of this route in Allegan, Van Buren, Berrien, and Kent Counties. This Fiber to the Home (FTTH) service has broadband speeds of 250Mbps up to 1 Gbps.

[redacted]

Lake Michigan Crossing – Peninsula & Island Connection
TDS Telecommunications (TDS) has been serving Michigan since 1982 and operates 5 telephone companies in the state and serves1,000 rural, suburban, and metro communities nationwide. In 2017,

TDS's A-CAM award was used to provide fiber broadband to 617 locations on Beaver Island, recognized as one of the hardest areas to provide broadband service in Michigan. TDS has committed to expanding broadband service to 1,084 locations on the island. Today, 486 of these locations are unserved receive < 25/3Mbps and 598 locations are considered underserved. TDS commits to providing GPON FTTH with 1/1Gbps service. [redacted]

Since 1999, AVS has served 8000 customers fixed wireless, broadband, vDSL, and FTTH services. Today, AVS with its parent company Pigeon Telephone, provides vDSL service to its customers in Antrim and Otsego counties with speeds of 10/1Mbps or 25/3 Mbps. By utilizing PFN MM for transport for additional service nodes and to serve as additional distribution backbone, AVS will serve 7,500 mappable locations with FTTH service. AVS will also build last mile fiber to tower locations in Star Township and Mancelona Township, utilize PFN's MM infrastructure, and expand broadband service to 5837 locations using fixed wireless service at speeds up to 35/3Mbps. These areas are currently considered un/underserved. AVS will deploy this service using licensed spectrum owned by AVS. PFN's MM will provide backhaul transport to feed the selected tower sites. [redacted]

CCC is a Michigan based provider offering broadband and telephone services since 2001 in an 11-county rural region. Today, CCC serves 490 customers with Fixed Point Wireless and over 400 XgsPON customers with Gig symmetrical services. CCC was the recipient of $5.6 million RDOF Phase 1 support in 2021. In Antrim County, CCC proposes to pass 9,600 households and connect 4,896 un/underserved households with FTTH service. In remote Charlevoix County CCC will offer FTTP with 1/1 Gbps to 3800 households utilizing PFN's proposed MM infrastructure for backhaul and connection services. In both locations, CCC will offer broadband speeds from 100Mbps to 1 Gbps. [redacted]

Port Huron to Flint

123NET will use the new MM facilities to offer FTTH service to 2575 un/underserved locations within 500 feet of this route in Macomb, St. Clair, Lapeer, and Genesee Counties. This FTTH service offers broadband speeds of 250 Mbps up to 1 Gbps to 2575 end users along the route. [redacted]

AVS will expand their fixed wireless offering in the City of Lapeer, Lapeer County, St. Clair County, and surrounding areas considered un/underserved today. AVS will utilize the proposed MM for backhaul transport to feed selected fixed wireless tower sites. [redacted]

[redacted]

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Applicants are encouraged to upload supplemental documentation.

[redacted]

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Competitive Landscape

The Applicant should describe existing middle mile offerings in the area, if any, including competitor data if applicable. This should include a description of the proposed service offerings, including the pricing and technology of the services to be offered over the proposed facility. Where possible, Applicant's project should be able to demonstrate a decline in middle mile costs that are likely to flow through to consumer broadband prices.

This response is limited to 6000 characters as an open field narrative.

PFN's Infrastructure for Michigan Peninsulas and Critical Crossings (IMPACC) application includes three projects. Two in Michigan's Lower Peninsula and one connecting Northern Michigan and the Upper Peninsula. A high-level project map naming and numbering the routes has been uploaded. This naming convention will be used throughout the application.

1. Lake Michigan Crossing – Chicago Connection
a. Benton Harbor to Chicago (2 lines)
b. Benton Harbor to Byron Center
2. Lake Michigan Crossing – Peninsula and Island Connection
a. Gulliver to Beaver Island to Charlevoix
b. Charlevoix to Gaylord
3. Port Huron to Flint

Existing middle mile offerings and competitor data
There are three primary competitors in Michigan's Lower Peninsula: Lumen Technologies (formerly Century Link), Zayo, and Merit. Network maps for each agency were publicly available a[redacted]

Merit and Spectrum are the primary competing service providers in the Northern Lower Peninsula and Upper Peninsula. Their network maps have been uploaded along with Charter Communications (Spectrum) Fiber Internet Access [redacted]

Proposed service offerings, price, technology
PFN provides Core Dedicated Internet Access (DIA) which is a Core Internet service designed for

mission critical internet applications. PFN's DIA provides fully symmetrical, dedicated, single customer internet access on a backbone network with redundant ring topology. PFN provides 1GigE network capacity on each logical connection or route proposed in this application. Specific ordered speed would be rate-limited from the 1GigE network allowing for fast service upgrades. All of PFN's underlying network connectivity proposed will be fiber optic based and provided by PFN or its affiliates. The backbone connectivity is route redundant, with a self-healing backbone. Connections from the PFN backbone network to customer facilities or locations are non-route redundant, fiber optic laterals. PFN offers exceptionally low latency, typically <15ms to the internet backbone point at Chicago.

PFN's network was designed to support a high grade of service performance and stability and has maintained that level of service since its inception. Our customers are typically carriers, NG 911 centers and other operations that require "mission critical" service stability. The competitors in our service area are, for the most part, providing services that are certainly important, but not typically critical to their operation. Carriers and 911 centers are on the other hand absolutely reliant on stable service. PFN provides substantially non-blocking transport and transit service with uptimes that are unparalleled in the market. Unlike our competitors, PFN's backbone network is designed around FCC Report and Order 13-158, and we certify that each year as a part of our 911 operations. This level of service is essential to our carrier customers that often have thousands of residential and business customers on their networks.

As such, PFN is not positioned as a "low-cost" service provider, but rather a high-performance, highly stable and recoverable service. However, given that our carrier base typically serves rural areas, their customer saturation in any area is generally much lower than similar providers in urban areas. As such, PFN has developed products for the carrier market that provide this level of service while also providing very affordable transport that allows these types of carriers to function in the market at a tolerable cost basis.

Chicago Connection

The Lake Michigan crossing to Chicago will connect PFN's Middle Mile network to one of the largest data centers in the world [redacted] with two redundant fiber optic cables which will cross Lake Michigan [redacted] s the most interconnected multi-tenant datacenter in the Midwest with over 70 network providers and the ability to connect to any or all major cloud providers directly and economically. The middle mile project will enable PFN and subrecipients to access wholesale Internet prices at the most competitive rates and pass those discounts on to its customers.

PFN is proud to offer more affordable rates for wholesale broadband services on a carrier-neutral basis than our competitors can provide, satisfying an NTIA priority. PFN's DIA broadband services have a high price point [redacted] which is lower than the competitor's average rate [redacted] in the Lower Peninsula, and just below the competitor's lowest rate [redacted] in Northern Michigan and the Upper Peninsula. End-users should see a decrease in consumer broadband pricing as a result of PFN's lower middle mile costs flowing through to last-mile providers.

[redacted]

Applicants are encouraged to upload supplemental documentation.

[redacted]

Type of technology to be used in proposal:

Fiber Optic Technology

Each applicant of an award to build middle mile infrastructure using fiber optic technology shall certify that the proposed project, upon completion, will include direct interconnection facilities that will facilitate the provision of lit broadband service, at speeds not less than 1 Gigabit per second for downloads and 1 Gigabit per second for uploads to anchor institutions located within 1,000 feet of the middle mile infrastructure, as detailed in the Template CAI below.

Do you agree to certify to the above?

Yes

Upload Template CAI. Required for Fiber Optic Technology, optional for Wireless or Other.

[redacted]

An eligible entity applying for a middle mile grant may seek, and the Assistant Secretary may grant, a waiver of the requirements set out in the previous paragraph, in full or in part, to the extent the eligible entity demonstrates that the requirement is not technically or economically feasible.

Do you plan to apply for a waiver? If yes, please attach the waiver application in the Application Workspace, the Application Information section, Required Documents under Required Document Question 4 "Additional Waiver Upload".

No

Network Route Maps

Applicants should provide a physical network map that includes the following (if applicable):

The Project Area and those unserved and underserved areas which it will enable.
Applicant's pre-existing service area that demonstrates current service levels.
The physical path of the network's transmission medium (e.g., backbone and lateral cable routes, microwave links), transmission type, technology, operating bandwidth, capacity (e.g., dark vs. lit strand count), and cable placement (e.g., aerial, burial) should be displayed.
Points of interconnection (purely passive and non-environmentally controlled nodes, e.g., splice points are optional):Provider Facilities
Collocation Facilities
Private Interconnection Points with partnering service provider/private network

Wireless towers and associated coverage areas.
Anchor institutions within 1,000 feet, if desired.
Additionally, the maps should delineate between network and facilities that are:Part of the Applicant's/key partners' existing network;
Proposed as part of this project;
Leased from a third party;
Utilized under some alternative arrangement; or
Relevant to interconnection with either Last Mile or Middle Mile service providers.

PLEASE NOTE: Only ESRI Shapefiles will be accepted and uploaded.

[redacted]

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Data Submission Specification

There is a template “Upload Template Data Submission Specification” which shall be uploaded. Applicants must complete the table with information for all interconnection points proposed for the network. This table has three required fields: Point Name, Latitude and Longitude. This should accommodate all of the points of interconnection (passive, non-environmentally controlled points of interconnection, e.g., splice points, may be excluded), collocation facilities, central offices, head ends, and other centralized facilities, network access points to Last Mile service providers, Internet peering points, and towers.

[redacted]

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Network Logical Diagram

The Applicant must provide network diagrams to be uploaded for the project including all of the network elements and the capacity, facilities, and mileage between each element. The diagram must clearly denote which of the network elements already exist. The diagrams must also explicitly show:

The links between the network nodes. The types of facilities used in connecting all the network elements (fiber, copper, microwave, etc.).
Internet peering points, access to local exchange carriers and central offices and cable head ends.
The proposed aggregation node facilities that will provide the egress point(s) from the broadband backbone to the networks of the selected service provider(s), Last Mile service providers, and the selected Internet Service Provider(s) and any other value-added services that may be provided in the new infrastructure.
The points of interconnection and collocation facilities.

The Applicant should show how traffic originates on the network and flows through the network, delineating which protocols are used on each link, and which technologies and standards are used at each junction. The diagram should include capacity constraints for each network element.

[redacted]

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Environmental Narrative

Any project-related activity that may adversely affect the environment must not be undertaken prior to the completion of the environmental review process prescribed by NTIA. Doing so may jeopardize consideration of the application.

All Applicants for MMG projects must comply with the National Environmental Policy Act, the National Historic Preservation Act, and the Endangered Species Act, and other applicable environmental regulations.

Please provide a service-area environmental description that describes the physical project area and its surroundings (e.g., disturbed or developed land vs. open space; adjacent natural resources, such as rivers, wetlands, or forestlands; and any protected lands or resources in or near the project area), including site photographs and aerial photographs (e.g., Google Earth or Google Maps images), if the project includes construction and/or ground disturbing activities.

This response is limited to 12000 characters as an open field narrative with image files to be uploaded.

Peninsula Fiber Network's NTIA Middle Mile project has a unique mix of landscapes and environmental conditions that will be addressed in order to successfully complete the project. There is an underwater cable component to this project that will require US Army Corps of Engineer (USACE) approval with routes that cross Lake Michigan. PFN met with the USACE about the project and discussed necessary permit and permit evaluations that could be required for the project. PFN used this information to budget and plan for the environmental assessment that will be required to construct these underwater routes. The land routes have been designed to run in the pre-disturbed right of way of urban streets, State Highways, and County roads. These routes traverse suitable habitat for 23 threatened and endangered species. PFN is aware that biological and botanical survey work will be required to obtain US Fish and Wildlife Service (USFWS) concurrence and permits for these routes. They have spoken to Michigan's Department of Transportation, Department of Natural Resources, Department of Environmental, Great Lakes and Energy and local governments about permitting requirements and these agencies have been helpful with outlining the requirements and pledging to expedite reviews once the appropriate survey work has been completed. There is critical habitat for the Piping Plover on the beaches of Lake Michigan, so PFN anticipates formal consultation with the USFWS to plan the landing sites of the undersea cable. Given the hydrological make up of Michigan, numerous wetland and flood plain locations are within the projects area of potential affect. However, fiber optic cable will be directionally drilled through these sensitive areas, and no electronics cabinets or equipment will be placed there. The project does not cross any Federally managed land. However, the State Historic Preservation Office (SHPO) concurrence for the project will be required to obtain permits from the Michigan Department of Transportation. PFN has included the estimated costs in the grant budget and allowed for the related construction timing delays for Section 106 survey work and SHPO Concurrence to be obtained in the proposed construction timeline.

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Upload Map Images:

[redacted]

[redacted]

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Template Table of Funded Partners and Unfunded Collaborators

List all funded and unfunded project collaborators, including partners, subrecipients, match providers, major contractors/supplies, details on role/scope of work for project. A fillable Template of Funded Partners and Unfunded Collaborators can be found in found in the MMG ZIP folder.

[redacted]

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Certificate of Operational Capability

Each applicant must supply a certification from an officer-level employee (or individual of comparable rank) attesting to the applicant's operational capability to complete and operate the proposed project.

If the applicant has provided a voice and/or broadband internet access service, it must supply a certification from an officer-level employee (or individual of comparable rank) attesting that it has filed FCC Form 477s and the Broadband DATA Act submission, if applicable, to the extent required during this time period and otherwise complied with the Commission's rules and regulations. Alternatively, the applicant must explain any pending or completed enforcement action, civil litigation, or other matter in which it was alleged to have failed to comply with Commission rules or regulations.

If the applicant has operated only an electric transmission or distribution service, it must submit qualified operating or financial reports that it has filed with the relevant financial institution for the relevant time period along with a certification that the submission is a true and accurate copy of the reports that were provided to the relevant financial institution.

If applicable, the applicant must submit a certification from an officer-level employee (or individual of comparable rank) that is has operated a middle mile broadband network for at least two years or that it is a wholly owned subsidiary of such an entity and must specify the number of years the applicant or its parent company has been operating.

[redacted]

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Certification of Financial Capability

Each applicant must supply a certification from an officer-level employee (or individual of comparable rank) attesting that it is financially qualified to meet the obligations associated with a project, that they will have available funds for all project costs that exceed the amount of the grant, and that they will comply with all MMG Program requirements, including service milestones.

[redacted]

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Letter of Credit

During the application process, each applicant must submit a letter from a bank meeting eligibility requirements consistent with those set forth in 47 C.F.R. § 54.804(c)(2) committing to issue an irrevocable stand-by letter of credit, in the required form, to the applicant. The letter shall at a minimum provide the dollar amount of credit offered and the issuing bank's agreement to follow the terms and conditions of NTIA's model letter of credit. NTIA shall publish on its website a model letter of credit substantially similar to the model letter of credit established by the Federal Communications Commission in connection with the Rural Digital Opportunity Fund (RDOF - Rural Digital Opportunity Fund Order, 35 FCC Rcd at 773-77, Appx. C.).

NTIA will ensure, prior to issuing a middle mile grant award, that each eligible entity obtains an acceptable, irrevocable standby letter of credit in a value of no less than 25 percent of the award amount.

Each eligible entity shall provide with its letter of credit an opinion letter from its legal counsel clearly stating, subject only to customary assumptions, limitations, and qualifications, that in a proceeding under Title 11 of the United States Code, 11 U.S.C. § 101 et seq. (the "Bankruptcy Code"), the bankruptcy court would not treat the letter of credit or proceeds of the letter of credit as property of the winning bidder's bankruptcy estate under Section 541 of the Bankruptcy Code.

[redacted]

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Audited Financial Statement (Previous 3 Years)

Each applicant shall submit financial statements from the most recent fiscal year that are audited by an independent certified public accountant. If the applicant is not audited in the ordinary course of business, in lieu of submitting audited financial statements it must submit unaudited financial statements from the three prior fiscal years and certify that it will provide financial statements from the three prior fiscal years that are audited by an independent certified public accountant by an NTIA specified deadline.

*You must provide 3 years of audited financial statements.

[redacted]

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Historical Financial Statements (Previous 3 Years)

Each applicant shall submit financial statements from the three prior fiscal years that are audited by an independent certified public accountant. If the applicant is not audited in the ordinary course of business, in lieu of submitting audited financial statements it must submit unaudited financial statements from the three prior fiscal years and certify that it will provide financial statements from the three prior fiscal years that are audited by an independent certified public accountant by an NTIA specified deadline.

*You must provide 3 years of historical financial statements.

[redacted]

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Budget Narrative

Applicants will create and submit a budget narrative that adequately describes all proposed activities and costs for their grant-funded project. Applicants must complete the file template, fill in all required information, and upload the file
. The file must be uploaded as a Word file, and not converted to a PDF. You can find additional guidance in the MMG Application Guidance.

[redacted]

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Template Detailed Budget Justification

The Detailed Budget Justification spreadsheet must reflect the cost categories that appear on the SF-424 and SF-424C and include itemized calculations for each cost placed under those categories. A fillable Template Detailed Budget Justification can be found in found in the MMG ZIP folder.

[redacted]

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Any other funding provided for this project?

No

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Template Pro Forma

Pro forma financial projection and analysis related to the project's sustainability, inclusive of subscriber (e.g., last mile network connections, other wholesale services), across an eight-year forecast period. A fillable Template Pro Forms can be found in the MMG ZIP folder.

[redacted]

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