



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM	Easygrants ID: 4658
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

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A. General Application Information

Applicant Information	
Name and Federal ID for Applicant	
DUNS Number	615121324
CCR # (CAGE)	3ZHN4
Legal Business Name	MERIT NETWORK INC
Point of Contact (POC)	KAREN ALBERTI 7345275705 Ext. kla@merit.edu
Alternate POC	MICHAEL PRIEUR 7345275708 Ext. mprieur@merit.edu
Electronic Business POC	DONALD J. WELCH 7345275701 Ext. djwelch@merit.edu
Alternate Electronic Business POC	KAREN SMITH 7345275710 Ext. ksmith@merit.edu

Name and Contact Information of Person to be Contacted on Matters Involving this Application:	
Prefix	Dr.
First Name	Donald
Middle Name	J
Last Name	Welch
Suffix	
Telephone Number	734-527-5701



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Fax Number	734-527-5790
Email	djwelch@merit.edu
Title	President & CEO Merit Network

Additional Contact Information of Person to be Contacted on Matters Involving this Application:

Project Role	Name	Phone	Email
Secondary Point of Contact	Mr. Michael E, Prieur	7345275708	mprieur@merit.edu

Environmental Point of Contact

Prefix: Mr. Name: Stovall, Robert Suffix: Telephone Number: 7345275704 Title: VP, Network Operations and Engineering
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Organization Classification

Type of Organization	Non-profit Corporation
Is the organization a small business?	No
Does the organization meet the definition of a socially and economically disadvantaged small business concern?	No

Authorized Organizational Representative

AOR Name	Welch, Donald
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Result	Applicant Authorized
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Project Title and Project Description

Project Title: REACH Michigan Middle Mile Collaborative II

Project Description: REACH-3MC II is 1172 miles of middle mile fiber lit at speeds greater than 1G. The partnership between Merit, the MI 911 Administrator and 7 commercial sub-recipients will extend BTOP-funded REACH-3MC, and serve anchors, public safety, homes and businesses in the Upper Peninsula and Northern Lower Peninsula. Diverse paths out of the region will serve counties in Wisconsin and Minnesota.

CCI Priority Checklist

The following items were selected from the CCI Priority Checklist:

1. This project will deploy Middle Mile broadband infrastructure to community anchor institutions.
2. The project will deploy Middle Mile broadband infrastructure and has incorporated a public-private partnership among government, non-profit and for-profits entities, and other key community stakeholders.
3. This project will deploy Middle Mile broadband infrastructure in economically distressed areas.
4. This project will deploy Middle Mile broadband infrastructure to community colleges.
5. This project will deploy Middle Mile broadband infrastructure to public safety entities.
6. This project will deploy Middle Mile broadband infrastructure and either includes a Last Mile infrastructure component in unserved or underserved areas or has received commitments from one or more Last Mile broadband service providers to utilize the Middle Mile components. Any Last Mile components in rural areas do not exceed 20% of the total eligible costs of the project.

Comprehensive Community Infrastructure Components

The following items were selected from the Comprehensive Community Infrastructure Components:

Middle Mile



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BIP Applicants

Have you also applied to BIP for funding in the sample proposed funded service area?

- No

If Yes, please provide the project title and Easygrants ID number:

Title of Joint BIP Application:

Easygrants ID:

Other Applications

Is this application being submitted in coordination with any other application being submitted during this round of funding?

- Yes

Easygrants ID	Project Title
153	REACH Michigan Middle Mile Collaborative
5315	Thumb Area Broadband
5129	REMC1
5710	Wisconsin Building Community Capacity
4589	UCAN
7274	Big Bay Michigan Connect
4223	Boardman River
7226	Fiber for the Keweenaw
5616	Northern Michigan Broadband
6076	Northern Michigan Broadband
6085	Northern Michigan Broadband



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6086	Northern Michigan Broadband
6087	Northern Michigan Broadband
6038	KeyOn WIMAX
4282	Eastern Upper Peninsula
6547	Michigan State University's Evidence Based CCII
4778	Income Concepts
6000	OSSMEOSP
6320	Sparkling Broadband Use in the Eastern UP
7109	ER-BAM
4988	Mid-Michigan Broadband
6968	BBTWireless WiMax for Lower Keweenaw

If YES, please explain any synergies and/or dependencies between this project and any other applications.

REACH-3MC II is a standalone project that will bring great benefit to the region by itself, but when combined with these 21 other applications the impact will be tremendous. REACH-3MC II is the foundation of a coordinated plan to serve the region. The 9 diverse partners of REACH-3MC II designed the network to meet their combined needs. REACH-3MC II has been coordinated with 6 middle mile, 11 last mile, 3 SBA and a PCC application. Combined with Round 2 applications that are leveraging REACH-3MC, REACH-3MC II and these applications will bring State of Michigan's "Michigan's Push for Broadband" to fruition.

Middle Mile – REACH-3MC II will interconnect:

5315 Thumb Area Broadband - Serves the Thumb region with last and middle mile service. Merit will leverage this network to provide complete CAI networks in MI.



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5129 REMC1 – Project aggregates demand for two K12 districts in 5 UP counties. REACH-3MC II will provide redundant high-speed backhaul.

5710 Wisconsin Building Community Capacity - REACH-3MC II will connect to this network providing diverse paths for both networks.

4589 UCAN – National network will provide advanced networking to CAIs. REACH-3MC II will deliver this service to upper Michigan.

7274 Big Bay Michigan Connect - Connects Big Bay schools through PFN to REACH-3MC II, which will provide redundant high-speed backhaul.

7109 ER-BAM - Connects the school buildings of Traverse Bay Area ISD. REACH-3MC II will provide redundant high-speed backhaul.

Last Mile – REACH-3MC II will provide backhaul service:

4223 Boardman River - REACH-3MC II includes the middle mile infrastructure for this network. Serves Kalkaska and Crawford counties. Boardman River is a sub-recipient in REACH-3MC II.

7226 Fiber for the Keweenaw - Attaching to REACH-3MC II at Calumet it will provide service to the Keweenaw Peninsula.

5616; 6076; 6085; 6086; 6087 Northern MI Broadband (5 Applications) - Wireless service to 39 northern Michigan counties, most of which are in the REACH-3MC II service area.

6038 KeyOn WIMAX MI – Wireless service to Michigan’s Northern Lower Peninsula.

4988 Mid-Michigan Broadband - Service to the Big Rapids area.

4282 Eastern Upper Peninsula Fiber Project - Serves Eastern Upper Peninsula.

6968 BBTWireless WiMax for Lower Keweenaw - Serves Keweenaw



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PCC – REACH-3MC II will provide service directly to sites:

6547 Michigan State University’s Evidence Based CC II - Public Computer center project based on libraries in Northern Michigan.

SBA- Programs that will operate in REACH-3MC II service area:

4778 Income Concepts - This SBA application will help Internet-based companies develop.
6000 Open Source Software Migration Education, Outreach, and Support Program - This will leverage the infrastructure of REACH-3MC II to stimulate economic growth through open-source software development.

6320 Sparking Broadband Use in the Eastern UP - This program will help drive adoption and use.

Individual Background Screening

Is the Applicant exempt from the Department of Commerce requirements regarding individual background screening in connection with any award resulting from this Application?

- No, Applicant is subject to these requirements

If the answer to the above question is "No," please identify each key individual associated with the Applicant who would be required to complete Form CD-346, "Applicant for Funding Assistance," in connection with any award resulting from this Application:

Name	Title	Employer
Donald J. Welch	President & CEO	Merit Network Inc./University of Michigan
Robert E. Stovall	Vice President, Network Operations & Engineering	Merit Network Inc./University of Michigan
Karen A. Smith	Director, Finance & Administration	Merit Network Inc./University of Michigan
Peter J. Miller	Director, Network Operations	Merit Network Inc./University of Michigan



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Robert L. Duncan	Director, Network Engineering	Merit Network Inc./University of Michigan
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B. Executive Summary, Project Purpose and Benefits

Essay Question

Executive Summary of the proposed project:

As Michigan seeks to address its significant economic challenges, broadband becomes an even more important foundation for the future. Alternative energy, next generation manufacturing and other initiatives depend not only on access to information, but on an educated populace well-versed in new technology. In most remote areas of Michigan, the high cost and lack of competition for backhaul service limits last mile service performance, availability and affordability for homes, businesses and community anchor institutions (CAIs). Last mile providers in Michigan’s remote areas have reported that up to 80% of their costs go to backhaul.

For over 40 years Merit Network has operated a statewide CAI network. The service Merit can provide to CAIs in remote areas has been limited by high backhaul costs or limited technology options. Only CAIs in served areas of Michigan are able to take advantage of a CAI network by collaborating and sharing resources. Because there is no state subsidy for Michigan’s CAIs, and the cost of backhaul in remote areas is so high, CAIs in the REACH-3MC II service area have either elected not to join or to take service levels below their need.

The project described in this proposal, "Rural, Education, Anchor, Community, Health Care: Michigan Middle Mile Collaborative II" (REACH-3MC II), directly addresses these problems by creating a 1270-mile fiber network in Michigan’s Upper Peninsula (UP) and Lower Northern Peninsula with diverse paths to Wisconsin (WI) and Minnesota (MN). Merit Network, an established non-profit provider to CAIs, together with 7 commercial service providers, will use the new infrastructure to serve all sectors of society. REACH-3MC II leverages sub-recipients’ current networks and REACH-3MC, the BTOP funded network in West, South and Central



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Michigan, to deliver maximum benefit for cost. Merit’s mission of serving CAIs, combined with the partners' business plans, ensures that households, businesses, and CAIs will all see major benefits from REACH-3MC II.

By addressing the backhaul issue for Michigan’s remote areas, service providers will be able to offer higher speeds at lower costs, expand services, and better serve homes and businesses. Lowering the cost and increasing the speed and options for backhaul also provides the opportunity for all CAIs to take part in peer networks. The benefits of the statewide CAI network will be distributed throughout the state, not just the funded service area. Not only will institutions that are newly able to connect benefit, but also current Merit members will benefit from the synergistic effect of the new CAIs on the network.

REACH-3MC II and the statewide CAI network it will bring about are backed by letters of endorsement from 31 Michigan CAI leadership organizations.

By bringing backhaul into the UP through diverse paths, REACH-3MC II will deliver a level of reliability to the UP taken for granted in served areas of the nation, while also significantly improving the reliability of infrastructure throughout the state. The diverse paths will terminate in Green Bay, WI and Duluth, MN. The Green Bay spur will connect Merit’s CAI network to its counterpart WiscNet and access available transport that will allow the network to connect to a National Point of Presence in Chicago. The Duluth spur will connect Merit’s CAI network to counterpart networks, BOREAS-Net and the Northern Tier Network, which will begin the vision of the FCC National Broadband Plan to create a Unified Community Anchor Network (UCAN). Leveraging current peering of the Northern Tier Network and Merit, REACH-3MC II will provide direct fiber-optic connections between CAI networks from Alaska to Ohio.

REACH-3MC II is a complement to BTOP-funded REACH-3MC and will lay the groundwork for continued progress long after project completion. Merit, as cited in 187 letters of support from CAIs, has succeeded in helping communities work together, share assets, and make real progress toward improving regional network infrastructures. Merit has a history of bringing together diverse organizations to work together for the benefit of their remote communities; thus REACH-3MC II leverages a winning approach to extending the benefits of broadband.

REACH-3MC II is a partnership between Merit, the Michigan 911 Administrator’s Office, ACD.Net, Boardman River, CCI, GLC, Lynx, PFN and Zayo Bandwidth. Merit is the lead



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applicant, the 911 Office is a partner and the others are sub-recipients. All parties have jointly designed the network and have MOUs in place. Boardman River is applying to BIP for a last mile network and REACH-3MC II will provide it middle mile service.

Funded service area

The network will bring high-performance low-cost backhaul service to 29 counties in Michigan, 8 in Wisconsin and 1 in Minnesota. Of the 38 counties, 29 are underserved and 8 have underserved areas. REACH-3MC II is also a critical first step for the Next Generation 911 effort in Michigan and will leverage Merit’s existing CAI network and REACH-3MC to provide statewide infrastructure capable of connecting all Michigan’s Public Safety Answering Points (PSAPs).

Twenty-nine counties in the service area are economically distressed and seven meet one of two economically distressed criteria. REACH-3MC II serves communities that stand to benefit the most from broadband in a state that has fallen on difficult economic times and is working hard to better engage in the knowledge economy.

Households and businesses passed

REACH-3MC II will pass 731,237 households and 49,661 businesses.

Anchor institutions passed

The network will immediately connect 61 CAIs. REACH-3MC II will pass 759 CAIs in the service area.

Proposed services

As a middle mile proposal, sub-recipients will collectively offer Dark Fiber, Wavelength, TDM, SONET, Ethernet, p2p, and IP service. Speeds will be up to 10 Gbps, with standard lower speeds available.



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Some REACH-3MC II sub-recipients have existing last mile service operations. The network will allow them and customers of middle mile providers to offer a range services in the service area from Fiber-to-the-home, wireless, Ethernet, T1, DSL, cable.

This system is a fiber network that uses advanced technologies to bring high-performance, low-cost and easily scalable backhaul services to underserved areas. The design allows for easy support of legacy technology (TDM) common in smaller last mile providers, while providing a smooth path to newer high-performance (Ethernet) technology.

Non-discrimination and interconnection

Each REACH-3MC II sub-recipient has policies supporting open access and non-discrimination. Because each access point will have at least 4 providers, competition will be the true guarantor of open access and non-discrimination.

Type of broadband system

REACH-3MC II will extend advanced service previously unavailable in most of the service area. REACH-3MC II comprises 1270 miles of fiber. Segments will have between 12 and 168 strands. The optical system is based [REDACTED] with [REDACTED] optical transport equipment capability of delivering up to [REDACTED] waves within the ITU standard wavelength grid. The basic access rates will be [REDACTED] and [REDACTED] between add/drop sites at strategic locations on the network. These rates can be either Ethernet or SONET standards. Secondary regional access loop fibers will deliver [REDACTED] to [REDACTED] to the add/drop points for aggregation into the backbone network. Routers and switches on the regional access loops will operate with standard TCP/IP protocols and services.

Qualifications

Merit has built and operated networks for over 40 years. Merit was one of three partners that built the NSFNET, the forerunner of the commercial Internet. Merit currently operates 1600 fiber miles in its network, delivering the most advanced technology with rock-solid reliability. Merit is fully staffed with senior engineers, operators and management. As a 501(c)(3), Merit exists to serve the public good. Merit's Board governs Merit to maximize its positive statewide impact and



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to ensure Merit's long-term existence. Sub-recipients are all current network operators delivering quality service to customers throughout the Midwest.

Overall infrastructure cost

The total cost of this project is estimated to be \$87,049,114.

Overall expected subscriber projections

We expect up to [REDACTED] organizations to buy wholesale service from REACH-3MC II. Though all sub-recipients are participating as middle mile providers we still expect [REDACTED] households to take service from one of the partners on REACH-3MC II. We estimate that [REDACTED] businesses will get their service from a sub-recipient.

Number of jobs estimated to be created

Using the council of economic advisors formula this project will create/save 946 job years.

Project purpose:

REACH-3MC II leverages Merit's BTOP-funded, REACH-3MC. In the first round, REACH-3MC coordinated with two applications in Michigan's Northeast Lower Peninsula and Upper Peninsula (UP) that did not receive funding. In an effort to address these gaps in infrastructure and lack of broadband access in the region, Merit and seven commercial sub-recipients have created REACH-3MC II.

REACH-3MC II serves two primary functions: it will provide high-speed, affordable backhaul that will benefit last mile service providers (ISPs), businesses, households and community anchor institutions (CAIs) in the service area; and it will establish a statewide CAI network. In doing so, REACH-3MC II will fulfill all BTOP statutory objectives in the service area.

The REACH-3MC II service area contains the most underserved areas of the state and will dramatically improve access to consumers in these areas. Of the 38 counties in the service area, 29 are underserved by BTOP standards and 8 more have underserved areas.



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Five sub-recipients have existing last mile operations and ■ ISPs have expressed in writing their intention to use REACH-3MC II. Many more have given verbal commitments. The service area lacks accessible, high-speed middle mile infrastructure. Without such infrastructure, companies that wish to provide local broadband services face high costs to build lengthy middle mile fiber runs or must lease high-mileage circuits to carry backhaul traffic which drives up the cost for last-mile services. As a result, end-users in these areas experience diminished ability to accomplish tasks that require broadband connectivity. Learning, productivity and economic development suffer.

To cite a letter from the UP Board of County Commissioners, the broadband access in the service area availed by REACH-3MC II is “of critical importance, both from an economic, educational, and human resource perspective.”

United Bank and Trust, the Traverse Bay Economic Development Corporation along with several other ISPs, vendors, contractors, businesses and local municipality groups are all firm believers in the economic benefit REACH-3MC II infrastructure will have in the service area and to the entire state of Michigan. It will create jobs and provide entire regions of the state with vital connections to the global economy.

The diverse sub-recipients of REACH-3MC II will provide service to children in school, at the library, at the clinic and at home. The service area is largely economically distressed, and has a higher than average percentage of elderly residents and Native Americans.

With Merit Network as the lead, REACH-3MC II will bring tremendous benefits to as many as 759 CAIs in the service area. Indirectly, CAIs across the state will benefit, as REACH-3MC II will leverage, REACH-3MC and Merit’s existing network to create a statewide CAI network. Five Community college locations will be among the 61 CAIs to be directly connected to REACH-3MC II. Participating CAIs will have access to better service and enabling infrastructure for cost-saving resource sharing.

REACH-3MC II sub-recipients already connect many rural health care providers and 3 (ACD.net, Great Lakes Comnet and Zayo Bandwidth) have responded to the FCC Rural Health Care Pilot Project funded RFP. Regardless of who wins (REACH-3MC II participants or not), Merit, as Michigan’s Internet2 Connector, will provide Internet2 access as an important part of the rural health care network through REACH-3MC II.



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Michigan State University received a first round BTOP Public Computing Center grant for libraries in underserved counties in Michigan. REACH-3MC II and REACH-3MC will provide connectivity to these Centers in their service of the public. The same Michigan State University group is submitting an application for PCC and SBA in Round 2. If funded, REACH-3MC II will connect many of these centers as well.

REACH-3MC II is the foundation upon which Michigan's Next Generation (NG) 911 project will be built. The 911 Administrator's Office received funding to conduct a study that was used to develop a plan to implement a statewide IP backbone connecting all Public Safety Answering Points. State Legislature and local municipalities lack the capital to build the network. REACH-3MC II, together with REACH-3MC, will make the necessary transition to NG911 attainable by drastically reducing the cost of infrastructure.

REACH-3MC II brings the State of Michigan's "Michigan's Push for Broadband" to fruition. The plan includes scalable high-speed, intra-government connectivity, and better service to homes and businesses. As public institutions become more efficient they must consolidate and share services. CAIs have used Merit's fiber network to improve their effectiveness where Merit has fiber infrastructure. The institutions with the highest need have not been as able to do so because of the lack of dark fiber. REACH-3MC II will provide this capability to CAIs in this underserved region. High-speed broadband is the key to greater government and public institution efficiency. The synergy of 7 commercial partners, each with different offerings will create a foundation of incredible value and choice for last mile providers, businesses and homes. REACH-3MC II will complete a transformative foundation for Michigan.

Because this project is coordinated with 21 other round two applications, including middle mile, last mile, PCC and SBA, because it is integrated with two successful round one projects, Chatham Telephone last mile in the UP and Michigan State University's Evidence Based Computer Centers project, and because it is a continuation of Merit's successful round one project, REACH-3MC II is the foundation for Michigan's broadband plan. Not only will it supplement existing broadband progress, but it will complete a comprehensive footprint for Michigan to leverage in the future.

Recovery Act and Other Governmental Collaboration:



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Merit-led, REACH-3MC is a BTOP funded project with the same purpose as REACH-3MC II but with a different geographical target. REACH-3MC was designed as a standalone piece of a larger vision to address Michigan’s broadband shortfalls. The other applications that comprised this plan were not funded in the first round. REACH-3MC II has replaced these initiatives to address the need in these areas.

Michigan State University’s Evidence Based Computer Centers project was funded under BTOP PCC. The project expands 84 existing library computer centers, establishes 4 new, and adds 500 workstations that will serve nearly 13,000 new users per week. The grant did not include funding for connectivity. REACH-3MC II will serve these PCCs in 6 of the 15 counties of the PCC project. REACH-3MC II will keep the costs low and dramatically increase the value the centers will deliver to patrons.

The Chatham Telephone Company RUS award to provide last mile DSL in the Upper Peninsula (UP) will get its backhaul from REACH-3MC II. PFN a sub-recipient will provide higher speed service for a lower price than Chatham can currently get.

The 911 Administrator’s Office received funding to conduct a study that was used to develop a plan to implement a statewide IP backbone connecting all Public Safety Answering Points (PSAPs). REACH-3MC II will make the necessary transition to NG911 attainable by drastically reducing the cost of infrastructure.

The Michigan Public Health Institute was awarded a FCC Rural Health Care Pilot Project grant. They have released an RFP to build and operate a rural health care provider network. Three sub-recipients have responded to the RFP and will use the REACH-3MC II network to provide better and lower cost service to the rural health care providers.

Merit Network, Michigan’s Internet2 connector, will provide service to the winning provider. REACH-3MC II will help provide Internet2 speeds in even the most remote areas of Michigan, advancing Telemedicine in Michigan.

Michigan Technological University, Houghton and Lake Superior State University, Sault Ste. Marie have been awarded SmartZone grants. The 15 SmartZones throughout the state represent collaborations between universities, industry, research organizations, government and other



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community institutions intended to stimulate the growth of technology-based businesses and jobs.

Northern Michigan University is constructing a 4G WiMAX wireless network with municipal funds that delivers high-speed broadband data services to a variety of education, local government and public safety users in Marquette, MI. NMU is now adding service throughout the city of Negaunee and has plans to bring the communities of Sawyer, Gwinn, Ishpeming and Big Bay, MI online in the next 6 to 18 months.

Fit with BTOP CCI Priorities:

REACH-3MC II does well to meet the first six CCI Priorities. REACH-3MC II is strongly aligned with the statutory purposes of BTOP, and also with the priorities for round 2. REACH-3MC II does not meet the lowest priority – 30% match. A 30% match makes the business case unsupportable for this region. At 20% Merit and the sub-recipients will have a viable, self-sustaining network through the foreseeable future.

Middle Mile Service to Community Anchor Institutions

Merit’s intent in leading REACH-3MC II is centered in providing better service to Community Anchor Institutions (CAI). Merit already provides service to most students, and libraries in Michigan. Merit also serves a sizeable number of government, public safety and health care organizations. Merit will directly connect 61 CAIs. REACH-3MC II avail service to a total of 759. 187 CAIs have submitted letters in support. Public universities, community colleges, schools, libraries, the State’s Next Generation 911, state and local governments are all depending on Merit to leverage REACH-3MC II to provide equal access to a statewide CAI network. Merit is a member of the Northern Tier Network, a group of CAI networks working together to bring adequate connectivity to CAIs across the northern part of the US. REACH-3MC II will be the East anchor for this encompassing CAI network. REACH-3MC II will also interconnect with WiscNet and BOREAS.Net, two CAI networks, thus providing diverse paths for both those networks and Merit. Unified Community Anchor Network is the national CAI effort listed in the FCC National Broadband Plan. REACH-3MC II will complement this effort by bringing access to this national backbone to the region at the speeds available in more populated areas, and created peering for CAI networks from Alaska to Ohio. REACH-3MC II has 187 letters of support from CAIs, 31 of which are from CAI leadership organizations.



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Middle Mile Public/Private Partnership

REACH-3MC II is built as a public/private partnership. Merit, a 501(c)(3), is the lead applicant. There are 7 sub-recipients, all of whom are private companies. The Michigan 911 Administrator's Office has contributed to the network design, thus they are the 9th partner in REACH-3MC II. The development of this network was coordinated with the Michigan Department of Information Technology, and fulfills "Michigan's Push for Broadband," created by the Governor.

Middle Mile Service to Economically Distressed Areas

29 of 38 counties directly served by REACH-3MC II are considered economically distressed, while 7 of the rest meet one of the criteria for economic distress. In addition, REACH-3MC II has an indirect service area that includes all of Michigan though the completion of a statewide network. Michigan has been in a recession since 2001 and has arguably been hit hardest of any state in America. As of January 22, 2010 Michigan still has the highest unemployment rate in the nation by a good margin. The REACH-3MC II service area is focused on a region that has been trying to transform itself since long before the current recession.

Community Colleges

REACH-3MC II will directly serve 5 community college locations: [REDACTED], [REDACTED], one in [REDACTED], and on in [REDACTED] has a campus in [REDACTED]; so, REACH-3MC II will serve 5 total campuses. REACH-3MC II will provide a statewide community college network for all to join, regardless of geography. REACH-3MC II has the endorsement of the Michigan Community College Association. Please see Supplemental Information, Michigan Community Colleges Map.

Public Safety

Michigan's Next Generation 911 initiative depends on REACH-3MC, REACH-3MC II and Merit's existing network. In addition, individual 911 centers in the Upper Peninsula and Northern Michigan wish to consolidate and provide their own next generation services as the vanguard of the statewide effort. The creation of the intra-governmental network will combine



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police, courts and other public safety organization. Please see Supplemental Information, E911 and Public Service Answering Points Map.

Last Mile to Underserved Areas

The seven sub-recipients expect to connect [REDACTED] service providers, [REDACTED] businesses and [REDACTED] households in the service area. Five sub-recipients have existing last mile service operations. Four additional last mile providers have provided letters of commitment in addition to the existing last mile customers that middle mile providers [REDACTED] and [REDACTED] will automatically bring to the network.

The service area is underserved for last mile. 29 of the 38 counties are underserved. 8 of the remaining have underserved areas and only 1 is entirely served. REACH-3MC II is a powerful vehicle for making the transformation envisioned by BTOP in the region. It will establish a foundation that will have a significant impact on all residents of the region.

Is the applicant seeking a waiver of the Buy American provision pursuant to section x.Q of the NOFA?

- No

Is the applicant delinquent on any federal debt?

- No

If Yes, justification for delinquency:

Are you seeking a waiver of any requirement set forth in the NOFA that is not mandated by statute or applicable law?

- No

Is the applicant a current recipient of a grant or loan from RUS?

- No

C. Partners

Are you partnering with any other key institutions, organizations, or other entities for this project?

- Yes



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If YES, key partners are listed below:

<p>Project Role: Sub-recipient Name: Schoen, Kevin Phone: 5172317715 Email: schoen.kevin@acd.net Address 1: 1800 N. Grand River Address 2: Address 3: City: Lansing State: Michigan Zip Code: 48823 Organization: ACD.net Organization Type: For-profit Entity Small business: Yes Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Sub-recipient Name: John, Gary Phone: 2313692500 Email: gary@brconline.net Address 1: P.O. Box 17 Address 2: Address 3: City: South Boardman State: Michigan Zip Code: 49680 Organization: Boardman River Communications, LLC Organization Type: For-profit Entity Small business: Yes Socially and economically disadvantaged small business concern: Yes</p>
<p>Project Role: Sub-recipient Name: Heigl, Cory Phone: 9062823682 Email: cory.heigl@ccisystems.com Address 1: 105 Kent Street Address 2: Address 3: City: Iron Mountain State: Michigan Zip Code: 49801</p>



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<p>Organization: CCI Systems, Inc. Organization Type: For-profit Entity Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Sub-recipient Name: Summersett, John Phone: 5176641600 Email: jsummersett@glcom net Address 1: 1515 Turf Lane Suite 100 Address 2: Address 3: City: East Lansing State: Michigan Zip Code: 48823 Organization: Great Lakes Comnet, Inc. Organization Type: For-profit Entity Small business: Yes Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Sub-recipient Name: Barber, Chris Phone: 2695851003 Email: cbarber@goLNG.com Address 1: P.O. Box 237 Address 2: Address 3: City: Kalamazoo State: Michigan Zip Code: 49004 Organization: LYNX Network Group, LLC Organization Type: For-profit Entity Small business: Yes Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Sub-recipient Name: McCartney, David Phone: 9062262010 Email: gm@pfllc net Address 1: 2803 US 41 West Address 2: Address 3:</p>



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City: Marquette
 State: Michigan
 Zip Code: 49055
 Organization: Peninsula Fiber Network, LLC
 Organization Type: For-profit Entity
 Small business: Yes
 Socially and economically disadvantaged small business concern: No

Project Role: Sub-recipient
 Name: Morley, Chris
 Phone: 5089221323
 Email: cmorley@zayo.com
 Address 1: 901 Front Street, Suite 200
 Address 2:
 Address 3:
 City: Louisville
 State: Colorado
 Zip Code: 80027
 Organization: Zayo Bandwidth, LLC
 Organization Type: For-profit Entity
 Small business: No
 Socially and economically disadvantaged small business concern: No

Description of the involvement of the partners listed above in the project.

The primary purposes of this partnership are to provide service to all residents by serving Community Anchor Institutions (CAI), homes, and businesses; ensure open access by providing multiple service options at each access point; and to ensure the long term success of the project by having enough partners that success does not rely on any one company, technology, or business model.

The mission of Merit Network, 501(c)(3) is to serve CAIs. Merit provides service to the majority of public universities, private universities, community colleges, K-12 schools and libraries in Michigan. REACH-3MC II will enable CAIs in the service area to connect to Merit, or if already connected, upgrade to adequate speeds to serve their users.

As the lead applicant, Merit is ultimately responsible for the success of the project. To accomplish this Merit will be the provider of last resort to last mile providers in the service area.



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Should a last mile provider for some reason not be able to obtain service from sub-recipients at an access point, then Merit will provide transport service.

The following entities are sub-recipients. They contributed matching funds, participated in the design, and may participate in the fiber builds through the RFP process. They will own strands in the bundle and operate their portion of the network.

KEPS Technology Inc., doing business as ACD.net and ACD Telecom, Inc., www.acd.net, is a C Corporation and a Competitive Local Exchange Carrier (CLEC). ACD.net seeks to [REDACTED] in the service area. In addition, ACD.net [REDACTED], this project will enhance their ability to provide [REDACTED]. ACD.net is participating [REDACTED] for a total of [REDACTED] fiber miles. ACD.net will own [REDACTED] of assets for a matching investment of [REDACTED].

Boardman River Communications, LLC, www.brconline.net (BRC), is a Small Disadvantaged Business. BRC is [REDACTED] and their intent in the project is to deliver faster, more affordable service to their existing customers, [REDACTED]. Kaskaskia is a Federal Recovery Zone. Boardman River is applying for BIP (EasyGrants ID: 4223) last mile grant. REACH-3MC II will provide middle mile support for this proposal. Boardman River is participating [REDACTED] and [REDACTED] for a total of [REDACTED]. They will own [REDACTED] of assets and provide [REDACTED] in matching funds.

CCI Systems, Inc., ccisystems.com, is a small business headquartered in Iron Mountain, MI. They are participating to provide better broadband service to their customers in a region that is mostly underserved. [REDACTED] They will deliver [REDACTED]. The access to affordable, high speed backhaul will allow them to lower prices for service in their economically disadvantaged service area. CCI will participate [REDACTED] for a total of [REDACTED] miles. They will own [REDACTED] of assets and will contribute [REDACTED] of matching funds.

Great Lakes Comnet, Inc., www.glcom.net (GLC), is owned by a conglomeration of Michigan ILECs. [REDACTED] It currently serves [REDACTED]. GLC will use REACH-3MC II to expand [REDACTED] through [REDACTED], along the [REDACTED] through the [REDACTED] to [REDACTED].



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██████████. GLC’s participation will bring products and services to existing customers that are either not available or impractically expensive. GLCs customers are ██████████ that will provide added value to existing customers as well as serve additional customers. GLC will participate ██████████ for a total fiber mileage of ██████████. They will own assets of ██████████ for a matching fund contribution of ██████████.

Lynx Network Group, LLC, www.golng.com, is small business headquartered in Kalamazoo, MI. Lynx is a middle mile provider operating in the Midwest who also partnered with Merit on REACH-3MC. Lynx is participating to ██████████. Many of their customers are ██████████ that hope to ██████████ the service area. Lynx is participating in the ██████████ and the ██████████ for a total of ██████████ fiber miles. They will own ██████████ in assets and will contribute ██████████ in matching funds.

Peninsula Fiber Network, LLC, <http://pfnlc.net/> (PFN), of Marquette, MI is a ██████████ in the Upper Peninsula. PFN’s involvement is to address ██████████ in the economically disadvantaged and underserved ██████████. PFN will provide better ██████████ to their existing and new customers as well as ██████████ through REACH-3MC II. PFN will participate in the ██████████ for a total of ██████████ fiber miles. They will own ██████████ in assets and will contribute ██████████ in matching funds.

Zayo Bandwidth, LLC, www.zayo.com, is headquartered in Louisville, CO and is ██████████ provider in ██████████. They are participating to ██████████ further ██████████ into under and unserved areas. Zayo is participating in the ██████████ for a total of ██████████ fiber miles. They will own ██████████ of assets and will contribute ██████████ in matching funds.

The Michigan 911 Administrator’s Office is a partner in REACH-3MC II. They will use Merit’s current network, REACH-3MC and REACH-3MC II as a foundation for Michigan’s Next Generation 911 system, a footprint to connect all Public Safety Answering Points (PSAPs). They contributed to the design, but will not contribute matching funds.

D. Congressional Districts



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Applicant Headquarters

- Michigan

Project Service States

Michigan

Minnesota

Wisconsin

Project Service Areas

Michigan - 1

Michigan - 2

Michigan - 4

Minnesota - 8

Wisconsin - 7

Wisconsin - 8

Will any portion of your proposed project serve federally recognized tribal entities?

- Yes

Indicate each federally recognized tribal entity your proposed project will serve.

Bay Mills Indian Community

Sault Ste. Marie Tribe of Chippewa Indians of Michigan



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Bad River Band of Lake Superior Chippewa

Have you consulted with each of the federally recognized tribal entities identified above?

- Yes

E. Service Area Details

Is the applicant seeking a waiver for providing less than 100% coverage of a service area?

- No

Project Details

Service Area Type: Middle Mile
Service Area Name: Gogebic County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1,102
Total Population in Proposed Service Area: 17,370
Total Number of Households in Service Area: 7,425
Total Number of Businesses in Service Area: 452
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 20
Unemployment Rate in the Service Area: 14
Median Income in the Service Area: 27,405
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile



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Service Area Name: Ontonagon County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1,312
Total Population in Proposed Service Area: 7,818
Total Number of Households in Service Area: 3,456
Total Number of Businesses in Service Area: 224
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 12
Unemployment Rate in the Service Area: 24
Median Income in the Service Area: 29,552
Estimated Percentage of Households with Access to Broadband: 29
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Houghton County Served
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.

Total Square Miles in Service Area: 82
Total Population in Proposed Service Area: 23,873
Total Number of Households in Service Area: 8,921
Total Number of Businesses in Service Area: 631
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 21
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 28,817
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 60



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Service Area Type: Middle Mile
Service Area Name: Houghton CT 9901
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 149
Total Population in Proposed Service Area: 2,397
Total Number of Households in Service Area: 976
Total Number of Businesses in Service Area: 64
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 28,817
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Houghton CT 9902
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 8
Total Population in Proposed Service Area: 3,251
Total Number of Households in Service Area: 1,325
Total Number of Businesses in Service Area: 86
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 3
Unemployment Rate in the Service Area: 12



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Median Income in the Service Area: 28,817
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Houghton CT 9907
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 358
Total Population in Proposed Service Area: 3,362
Total Number of Households in Service Area: 1,257
Total Number of Businesses in Service Area: 88
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 3
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 28,817
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Houghton CT 9910
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 415
Total Population in Proposed Service Area: 3,133



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Total Number of Households in Service Area: 1,314
Total Number of Businesses in Service Area: 83
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 28,817
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Iron County (MI)
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1,166
Total Population in Proposed Service Area: 13,138
Total Number of Households in Service Area: 5,748
Total Number of Businesses in Service Area: 425
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 20
Unemployment Rate in the Service Area: 14
Median Income in the Service Area: 28,560
Estimated Percentage of Households with Access to Broadband: 24
Estimated Percentage of Households Subscribing to Broadband: 20

Service Area Type: Middle Mile
Service Area Name: Dickinson County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.



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The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 766
Total Population in Proposed Service Area: 27,472
Total Number of Households in Service Area: 11,386
Total Number of Businesses in Service Area: 980
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 24
Unemployment Rate in the Service Area: 13
Median Income in the Service Area: 34,825
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Menominee County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1,044
Total Population in Proposed Service Area: 25,326
Total Number of Households in Service Area: 10,529
Total Number of Businesses in Service Area: 497
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 19
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 32,888
Estimated Percentage of Households with Access to Broadband: 85
Estimated Percentage of Households Subscribing to Broadband: 20

Service Area Type: Middle Mile



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Service Area Name: Delta County Served
Rural Classification of the Last Mile Service Area:Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.

Total Square Miles in Service Area: 122
Total Population in Proposed Service Area: 27,701
Total Number of Households in Service Area: 11,438
Total Number of Businesses in Service Area: 848
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 17
Unemployment Rate in the Service Area: 15
Median Income in the Service Area: 35,511
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 60

Service Area Type: Middle Mile
Service Area Name: Delta CT 970100
Rural Classification of the Last Mile Service Area:Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.

The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 315
Total Population in Proposed Service Area: 1,760
Total Number of Households in Service Area: 771
Total Number of Businesses in Service Area: 54
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 15
Median Income in the Service Area: 35,511
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 60



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Service Area Type: Middle Mile
Service Area Name: Delta CT 970200
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 341
Total Population in Proposed Service Area: 2,527
Total Number of Households in Service Area: 1,057
Total Number of Businesses in Service Area: 79
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 15
Median Income in the Service Area: 35,511
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Delta CT 970300
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 283
Total Population in Proposed Service Area: 2,561
Total Number of Households in Service Area: 1,016
Total Number of Businesses in Service Area: 78
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 15



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Median Income in the Service Area: 35,511
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Delta CT 970700
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 109
Total Population in Proposed Service Area: 3,971
Total Number of Households in Service Area: 1,554
Total Number of Businesses in Service Area: 121
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 15
Median Income in the Service Area: 35,511
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Schoolcraft County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1,178
Total Population in Proposed Service Area: 8,903



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Total Number of Households in Service Area: 3,606
Total Number of Businesses in Service Area: 257
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 8
Unemployment Rate in the Service Area: 18
Median Income in the Service Area: 31,140
Estimated Percentage of Households with Access to Broadband: 35
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Mackinac County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1,022
Total Population in Proposed Service Area: 11,943
Total Number of Households in Service Area: 13,474
Total Number of Businesses in Service Area: 466
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 15
Unemployment Rate in the Service Area: 27
Median Income in the Service Area: 33,356
Estimated Percentage of Households with Access to Broadband: 35
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Chippewa County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM	Easygrants ID: 4658
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1,561
Total Population in Proposed Service Area: 38,543
Total Number of Households in Service Area: 13,474
Total Number of Businesses in Service Area: 877
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 45
Unemployment Rate in the Service Area: 15
Median Income in the Service Area: 34,464
Estimated Percentage of Households with Access to Broadband: 77
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Cheyboygan County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 716
Total Population in Proposed Service Area: 26,448
Total Number of Households in Service Area: 10,835
Total Number of Businesses in Service Area: 873
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 17
Unemployment Rate in the Service Area: 20
Median Income in the Service Area: 33,417
Estimated Percentage of Households with Access to Broadband: 48
Estimated Percentage of Households Subscribing to Broadband: 20

Service Area Type: Middle Mile



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM		Easygrants ID: 4658	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: MERIT NETWORK INC	
Task: Submit Application - BTOP		Applicant Name: Dr. Donald J Welch	

Service Area Name: Ostego County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 515
Total Population in Proposed Service Area: 23,301
Total Number of Households in Service Area: 13,375
Total Number of Businesses in Service Area: 871
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 18
Unemployment Rate in the Service Area: 18
Median Income in the Service Area: 40,876
Estimated Percentage of Households with Access to Broadband: 48
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Presque Isle County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 660
Total Population in Proposed Service Area: 14,411
Total Number of Households in Service Area: 6,155
Total Number of Businesses in Service Area: 369
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 20
Unemployment Rate in the Service Area: 23
Median Income in the Service Area: 31,656
Estimated Percentage of Households with Access to Broadband: 48
Estimated Percentage of Households Subscribing to Broadband: 20



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM		Easygrants ID: 4658	
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Task: Submit Application - BTOP		Applicant Name: Dr. Donald J Welch	

Service Area Type: Middle Mile
Service Area Name: Montmorency County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 548
Total Population in Proposed Service Area: 10,315
Total Number of Households in Service Area: 9,238
Total Number of Businesses in Service Area: 262
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 5
Unemployment Rate in the Service Area: 25
Median Income in the Service Area: 30,005
Estimated Percentage of Households with Access to Broadband: 81
Estimated Percentage of Households Subscribing to Broadband: 20

Service Area Type: Middle Mile
Service Area Name: Alpena County Served
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.

Total Square Miles in Service Area: 117
Total Population in Proposed Service Area: 22,168
Total Number of Households in Service Area: 9,318
Total Number of Businesses in Service Area: 625
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 28
Unemployment Rate in the Service Area: 15



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM	Easygrants ID: 4658
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Median Income in the Service Area: 34,177
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 60

Service Area Type: Middle Mile
Service Area Name: Alpena CT 000100
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 303
Total Population in Proposed Service Area: 4,726
Total Number of Households in Service Area: 1,844
Total Number of Businesses in Service Area: 133
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 6
Unemployment Rate in the Service Area: 15
Median Income in the Service Area: 34,177
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 10

Service Area Type: Middle Mile
Service Area Name: Alpena CT 000200
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 154
Total Population in Proposed Service Area: 4,420



**Broadband Infrastructure Application
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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Total Number of Households in Service Area: 1,656
Total Number of Businesses in Service Area: 125
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 6
Unemployment Rate in the Service Area: 15
Median Income in the Service Area: 34,177
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Alcona County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 674
Total Population in Proposed Service Area: 11,719
Total Number of Households in Service Area: 5,132
Total Number of Businesses in Service Area: 224
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 10
Unemployment Rate in the Service Area: 21
Median Income in the Service Area: 31,362
Estimated Percentage of Households with Access to Broadband: 81
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Iosco County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.



**Broadband Infrastructure Application
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Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: MERIT NETWORK INC	
Task: Submit Application - BTOP		Applicant Name: Dr. Donald J Welch	

The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 549
Total Population in Proposed Service Area: 27,339
Total Number of Households in Service Area: 20,432
Total Number of Businesses in Service Area: 699
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 18
Unemployment Rate in the Service Area: 20
Median Income in the Service Area: 31,321
Estimated Percentage of Households with Access to Broadband: 74
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Oscoda County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 565
Total Population in Proposed Service Area: 9,418
Total Number of Households in Service Area: 3,921
Total Number of Businesses in Service Area: 207
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 7
Unemployment Rate in the Service Area: 23
Median Income in the Service Area: 28,228
Estimated Percentage of Households with Access to Broadband: 12
Estimated Percentage of Households Subscribing to Broadband: 20

Service Area Type: Middle Mile



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Area Name: Crawford County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 558
Total Population in Proposed Service Area: 14,273
Total Number of Households in Service Area: 10,042
Total Number of Businesses in Service Area: 353
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 17
Unemployment Rate in the Service Area: 16
Median Income in the Service Area: 33,364
Estimated Percentage of Households with Access to Broadband: 81
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Ogemaw County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 564
Total Population in Proposed Service Area: 21,645
Total Number of Households in Service Area: 8,842
Total Number of Businesses in Service Area: 636
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 16
Unemployment Rate in the Service Area: 16
Median Income in the Service Area: 30,474
Estimated Percentage of Households with Access to Broadband: 73
Estimated Percentage of Households Subscribing to Broadband: 40



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Area Type: Middle Mile
Service Area Name: Roscocommon County Served
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.

Total Square Miles in Service Area: 175
Total Population in Proposed Service Area: 12,502
Total Number of Households in Service Area: 17,516
Total Number of Businesses in Service Area: 322
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 11
Unemployment Rate in the Service Area: 18
Median Income in the Service Area: 30,028
Estimated Percentage of Households with Access to Broadband: 73
Estimated Percentage of Households Subscribing to Broadband: 60

Service Area Type: Middle Mile
Service Area Name: Roscommon CT 970100
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.

The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 61
Total Population in Proposed Service Area: 2,091
Total Number of Households in Service Area: 946
Total Number of Businesses in Service Area: 54
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 18



**Broadband Infrastructure Application
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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Median Income in the Service Area: 30,029
Estimated Percentage of Households with Access to Broadband: 73
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Roscommon CT 970200
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 5
Total Population in Proposed Service Area: 1,972
Total Number of Households in Service Area: 909
Total Number of Businesses in Service Area: 51
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 18
Median Income in the Service Area: 30,030
Estimated Percentage of Households with Access to Broadband: 73
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Roscommon CT 970900
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 7
Total Population in Proposed Service Area: 2,126



**Broadband Infrastructure Application
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Total Number of Households in Service Area: 924
Total Number of Businesses in Service Area: 55
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 18
Median Income in the Service Area: 30,031
Estimated Percentage of Households with Access to Broadband: 73
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Roscommon CT 971000
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 125
Total Population in Proposed Service Area: 4,052
Total Number of Households in Service Area: 1,625
Total Number of Businesses in Service Area: 104
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 4
Unemployment Rate in the Service Area: 18
Median Income in the Service Area: 30,032
Estimated Percentage of Households with Access to Broadband: 73
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Roscommon CT 971100
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.



**Broadband Infrastructure Application
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Task: Submit Application - BTOP		Applicant Name: Dr. Donald J Welch	

The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 149
Total Population in Proposed Service Area: 2,726
Total Number of Households in Service Area: 1,189
Total Number of Businesses in Service Area: 70
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 18
Median Income in the Service Area: 30,033
Estimated Percentage of Households with Access to Broadband: 73
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Missaukee County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 567
Total Population in Proposed Service Area: 14,478
Total Number of Households in Service Area: 5,450
Total Number of Businesses in Service Area: 286
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 7
Unemployment Rate in the Service Area: 18
Median Income in the Service Area: 35,224
Estimated Percentage of Households with Access to Broadband: 52
Estimated Percentage of Households Subscribing to Broadband: 20

Service Area Type: Middle Mile



**Broadband Infrastructure Application
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Service Area Name: Wexford County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 565
Total Population in Proposed Service Area: 30,484
Total Number of Households in Service Area: 11,824
Total Number of Businesses in Service Area: 903
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 21
Unemployment Rate in the Service Area: 19
Median Income in the Service Area: 35,363
Estimated Percentage of Households with Access to Broadband: 95
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Osceola County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 566
Total Population in Proposed Service Area: 23,197
Total Number of Households in Service Area: 8,861
Total Number of Businesses in Service Area: 449
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 16
Unemployment Rate in the Service Area: 18
Median Income in the Service Area: 34,102
Estimated Percentage of Households with Access to Broadband: 21
Estimated Percentage of Households Subscribing to Broadband: 20



**Broadband Infrastructure Application
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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Area Type: Middle Mile
Service Area Name: Mecosta County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 556
Total Population in Proposed Service Area: 40,553
Total Number of Households in Service Area: 14,915
Total Number of Businesses in Service Area: 788
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 21
Unemployment Rate in the Service Area: 15
Median Income in the Service Area: 33,849
Estimated Percentage of Households with Access to Broadband: 40
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Montcalm County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 708
Total Population in Proposed Service Area: 61,266
Total Number of Households in Service Area: 22,079
Total Number of Businesses in Service Area: 1,141



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Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 4
Unemployment Rate in the Service Area: 18
Median Income in the Service Area: 37,218
Estimated Percentage of Households with Access to Broadband: 79
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kalkaska County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 561
Total Population in Proposed Service Area: 16,571
Total Number of Households in Service Area: 10,822
Total Number of Businesses in Service Area: 354
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 10
Unemployment Rate in the Service Area: 17
Median Income in the Service Area: 36,072
Estimated Percentage of Households with Access to Broadband: 52
Estimated Percentage of Households Subscribing to Broadband: 20

Service Area Type: Middle Mile
Service Area Name: Lake County
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.



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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Total Square Miles in Service Area: 567
Total Population in Proposed Service Area: 11,333
Total Number of Households in Service Area: 13,498
Total Number of Businesses in Service Area: 171
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 212
Median Income in the Service Area: 26,622
Estimated Percentage of Households with Access to Broadband: 21
Estimated Percentage of Households Subscribing to Broadband: 20

Service Area Type: Middle Mile
Service Area Name: Kent County Served
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.

Total Square Miles in Service Area: 566
Total Population in Proposed Service Area: 383,452
Total Number of Households in Service Area: 151,553
Total Number of Businesses in Service Area: 10,845
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 45
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 000800
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved



**Broadband Infrastructure Application
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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 3,390
Total Number of Households in Service Area: 1,211
Total Number of Businesses in Service Area: 96
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 001000
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 4,745
Total Number of Households in Service Area: 1,898
Total Number of Businesses in Service Area: 134
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Area Type: Middle Mile
Service Area Name: Kent CT 001200
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 3,625
Total Number of Households in Service Area: 1,540
Total Number of Businesses in Service Area: 103
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 001300
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 4,017
Total Number of Households in Service Area: 1,384
Total Number of Businesses in Service Area: 114
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM	Easygrants ID: 4658
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 001600
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 5,785
Total Number of Households in Service Area: 2,292
Total Number of Businesses in Service Area: 164
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 001900
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 5,655
Total Number of Households in Service Area: 1,986
Total Number of Businesses in Service Area: 160



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 002100
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 3,120
Total Number of Households in Service Area: 1,906
Total Number of Businesses in Service Area: 88
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 002200
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM		Easygrants ID: 4658	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: MERIT NETWORK INC	
Task: Submit Application - BTOP		Applicant Name: Dr. Donald J Welch	

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 5,183
Total Number of Households in Service Area: 2,221
Total Number of Businesses in Service Area: 147
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 002500
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 5,337
Total Number of Households in Service Area: 2,301
Total Number of Businesses in Service Area: 151
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 002600
Rural Classification of the Last Mile Service Area: Non-Rural



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 3,966
Total Number of Households in Service Area: 960
Total Number of Businesses in Service Area: 112
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 002700
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. No fixed or mobile broadband service provider advertises broadband transmission speeds of at least 3 mbps downstream in the proposed funded service area; The rate of broadband subscribership for the proposed funded service area is 40% of households or less.
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Total Square Miles in Service Area: 2
Total Population in Proposed Service Area: 4,047
Total Number of Households in Service Area: 1,382
Total Number of Businesses in Service Area: 114
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM	Easygrants ID: 4658
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 002800
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 1,706
Total Number of Households in Service Area: 554
Total Number of Businesses in Service Area: 48
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 003000
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 1,656
Total Number of Households in Service Area: 676
Total Number of Businesses in Service Area: 47



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:

Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 003100
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 3,510
Total Number of Households in Service Area: 1,110
Total Number of Businesses in Service Area: 99
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 003200
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM	Easygrants ID: 4658
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 5,356
Total Number of Households in Service Area: 1,656
Total Number of Businesses in Service Area: 151
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 003500
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 5,816
Total Number of Households in Service Area: 2,101
Total Number of Businesses in Service Area: 164
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 003600
Rural Classification of the Last Mile Service Area: Non-Rural



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 2,465
Total Number of Households in Service Area: 720
Total Number of Businesses in Service Area: 70
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 003700
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 4,967
Total Number of Households in Service Area: 1,465
Total Number of Businesses in Service Area: 140
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM	Easygrants ID: 4658
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Area Type: Middle Mile
Service Area Name: Kent CT 003800
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 4,928
Total Number of Households in Service Area: 1,168
Total Number of Businesses in Service Area: 139
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 004000
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 3,671
Total Number of Households in Service Area: 1,020
Total Number of Businesses in Service Area: 104
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 004200
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 4,092
Total Number of Households in Service Area: 1,650
Total Number of Businesses in Service Area: 116
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 010101
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 55
Total Population in Proposed Service Area: 5,371



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Task: Submit Application - BTOP		Applicant Name: Dr. Donald J Welch	

Total Number of Households in Service Area: 1,828
Total Number of Businesses in Service Area: 152
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 010301
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 40
Total Population in Proposed Service Area: 4,605
Total Number of Households in Service Area: 1,546
Total Number of Businesses in Service Area: 130
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 010802
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.



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The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 37
Total Population in Proposed Service Area: 5,088
Total Number of Households in Service Area: 1,827
Total Number of Businesses in Service Area: 144
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 011200
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 3
Total Population in Proposed Service Area: 4,270
Total Number of Households in Service Area: 1,757
Total Number of Businesses in Service Area: 121
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile



**Broadband Infrastructure Application
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Task: Submit Application - BTOP		Applicant Name: Dr. Donald J Welch	

Service Area Name: Kent CT 011403
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 10
Total Population in Proposed Service Area: 2,346
Total Number of Households in Service Area: 967
Total Number of Businesses in Service Area: 66
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 011404
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 2
Total Population in Proposed Service Area: 9,067
Total Number of Households in Service Area: 3,704
Total Number of Businesses in Service Area: 256
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40



**Broadband Infrastructure Application
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Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Area Type: Middle Mile
Service Area Name: Kent CT 011500
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 6
Total Population in Proposed Service Area: 6,963
Total Number of Households in Service Area: 3,008
Total Number of Businesses in Service Area: 197
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 011702
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 10
Total Population in Proposed Service Area: 3,902
Total Number of Households in Service Area: 1,665
Total Number of Businesses in Service Area: 110



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:

Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 012002
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 65
Total Population in Proposed Service Area: 5,555
Total Number of Households in Service Area: 1,852
Total Number of Businesses in Service Area: 157
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 012003
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Total Square Miles in Service Area: 36
Total Population in Proposed Service Area: 5,298
Total Number of Households in Service Area: 1,667
Total Number of Businesses in Service Area: 150
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 012603
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 6
Total Population in Proposed Service Area: 7,548
Total Number of Households in Service Area: 4,018
Total Number of Businesses in Service Area: 213
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 012701
Rural Classification of the Last Mile Service Area: Non-Rural



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 2
Total Population in Proposed Service Area: 6,277
Total Number of Households in Service Area: 2,715
Total Number of Businesses in Service Area: 178
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 012901
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 4,911
Total Number of Households in Service Area: 1,964
Total Number of Businesses in Service Area: 139
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM	Easygrants ID: 4658
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Area Type: Middle Mile
Service Area Name: Kent CT 013300
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 4,718
Total Number of Households in Service Area: 1,582
Total Number of Businesses in Service Area: 133
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 013500
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 4,650
Total Number of Households in Service Area: 1,776
Total Number of Businesses in Service Area: 132
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12



**Broadband Infrastructure Application
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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 013801
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 1,581
Total Number of Households in Service Area: 709
Total Number of Businesses in Service Area: 45
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 013802
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 6,784



**Broadband Infrastructure Application
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Task: Submit Application - BTOP		Applicant Name: Dr. Donald J Welch	

Total Number of Households in Service Area: 2,911
Total Number of Businesses in Service Area: 192
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 014100
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 1,868
Total Number of Households in Service Area: 732
Total Number of Businesses in Service Area: 53
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 014200
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.



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Task: Submit Application - BTOP		Applicant Name: Dr. Donald J Welch	

The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 2
Total Population in Proposed Service Area: 4,537
Total Number of Households in Service Area: 1,656
Total Number of Businesses in Service Area: 128
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Kent CT 014701
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 4,397
Total Number of Households in Service Area: 1,675
Total Number of Businesses in Service Area: 124
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile



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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Area Name: Kent CT 014703
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 4,100
Total Number of Households in Service Area: 1,687
Total Number of Businesses in Service Area: 116
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 45,980
Estimated Percentage of Households with Access to Broadband: 65
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Iron County (WI)
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 757
Total Population in Proposed Service Area: 6,861
Total Number of Households in Service Area: 3,083
Total Number of Businesses in Service Area: 232
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 9
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 29,580
Estimated Percentage of Households with Access to Broadband: 17
Estimated Percentage of Households Subscribing to Broadband: 40



**Broadband Infrastructure Application
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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Area Type: Middle Mile
Service Area Name: Ashland County
Rural Classification of the Last Mile Service Area:Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1,044
Total Population in Proposed Service Area: 16,866
Total Number of Households in Service Area: 6,718
Total Number of Businesses in Service Area: 576
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 19
Unemployment Rate in the Service Area: 9
Median Income in the Service Area: 31,628
Estimated Percentage of Households with Access to Broadband: 40
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Bayfield County
Rural Classification of the Last Mile Service Area:Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.
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Total Square Miles in Service Area: 1,476
Total Population in Proposed Service Area: 15,013
Total Number of Households in Service Area: 6,207
Total Number of Businesses in Service Area: 476
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 13
Unemployment Rate in the Service Area: 11



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Median Income in the Service Area: 33,390
Estimated Percentage of Households with Access to Broadband: 83
Estimated Percentage of Households Subscribing to Broadband: 80

Service Area Type: Middle Mile
Service Area Name: Douglas County
Rural Classification of the Last Mile Service Area:Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1,309
Total Population in Proposed Service Area: 43,287
Total Number of Households in Service Area: 17,808
Total Number of Businesses in Service Area: 1,099
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 11
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 35,226
Estimated Percentage of Households with Access to Broadband: 43
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Marinette County
Rural Classification of the Last Mile Service Area:Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1,402
Total Population in Proposed Service Area: 43,384



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Total Number of Households in Service Area: 17,585
Total Number of Businesses in Service Area: 1,189
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 20
Unemployment Rate in the Service Area: 12
Median Income in the Service Area: 35,256
Estimated Percentage of Households with Access to Broadband: 51
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Oconto
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 998
Total Population in Proposed Service Area: 35,634
Total Number of Households in Service Area: 14,000
Total Number of Businesses in Service Area: 842
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 18
Unemployment Rate in the Service Area: 11
Median Income in the Service Area: 41,201
Estimated Percentage of Households with Access to Broadband: 57
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Brown Served
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.



**Broadband Infrastructure Application
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Total Square Miles in Service Area: 389
Total Population in Proposed Service Area: 191,942
Total Number of Households in Service Area: 74,109
Total Number of Businesses in Service Area: 5,728
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 23
Unemployment Rate in the Service Area: 7
Median Income in the Service Area: 46,447
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 80

Service Area Type: Middle Mile
Service Area Name: Brown CT 000800
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 2,148
Total Number of Households in Service Area: 855
Total Number of Businesses in Service Area: 64
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 7
Median Income in the Service Area: 46,447
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Brown CT 000900
Rural Classification of the Last Mile Service Area: Non-Rural



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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 4,171
Total Number of Households in Service Area: 1,584
Total Number of Businesses in Service Area: 124
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 7
Median Income in the Service Area: 46,447
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 10

Service Area Type: Middle Mile
Service Area Name: Brown CT 001100
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 2,203
Total Number of Households in Service Area: 820
Total Number of Businesses in Service Area: 66
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 7
Median Income in the Service Area: 46,447
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40



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Service Area Type: Middle Mile
Service Area Name: Brown CT 001200
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 2,696
Total Number of Households in Service Area: 1,048
Total Number of Businesses in Service Area: 80
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 7
Median Income in the Service Area: 46,447
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Brown CT 001600
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 7,119
Total Number of Households in Service Area: 2,977
Total Number of Businesses in Service Area: 212
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 7



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Median Income in the Service Area: 46,447
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Brown CT 001700
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 2
Total Population in Proposed Service Area: 6,706
Total Number of Households in Service Area: 3,120
Total Number of Businesses in Service Area: 200
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 7
Median Income in the Service Area: 46,447
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Brown CT 020600
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 61
Total Population in Proposed Service Area: 4,854



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Total Number of Households in Service Area: 1,785
Total Number of Businesses in Service Area: 145
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 7
Median Income in the Service Area: 46,447
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Brown County Green Bay Prison (CT 021100)
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 1,949
Total Number of Households in Service Area:
Total Number of Businesses in Service Area:
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 7
Median Income in the Service Area:
Estimated Percentage of Households with Access to Broadband:
Estimated Percentage of Households Subscribing to Broadband:

Service Area Type: Middle Mile
Service Area Name: Brown CT 021500
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
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The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 72
Total Population in Proposed Service Area: 2,990
Total Number of Households in Service Area: 997
Total Number of Businesses in Service Area: 89
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 7
Median Income in the Service Area: 46,447
Estimated Percentage of Households with Access to Broadband: 100
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis Served
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.

Total Square Miles in Service Area: 154
Total Population in Proposed Service Area: 84,422
Total Number of Households in Service Area: 32,224
Total Number of Businesses in Service Area: 3,658
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 47
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 70

Service Area Type: Middle Mile
Service Area Name: St Louis CT 001400
Rural Classification of the Last Mile Service Area: Non-Rural



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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 2,578
Total Number of Households in Service Area: 1,254
Total Number of Businesses in Service Area: 112
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 001600
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 1,599
Total Number of Households in Service Area: 727
Total Number of Businesses in Service Area: 69
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40



**Broadband Infrastructure Application
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Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 001700
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 1,554
Total Number of Households in Service Area: 968
Total Number of Businesses in Service Area: 67
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 001800
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 2,077
Total Number of Households in Service Area: 959
Total Number of Businesses in Service Area: 90
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 8



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 5:15:29 PM	Easygrants ID: 4658
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MERIT NETWORK INC
Task: Submit Application - BTOP	Applicant Name: Dr. Donald J Welch

Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 001900
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 1,778
Total Number of Households in Service Area: 1,312
Total Number of Businesses in Service Area: 77
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 002400
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 1,202



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Total Number of Households in Service Area: 497
Total Number of Businesses in Service Area: 52
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 002500
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 879
Total Number of Households in Service Area: 525
Total Number of Businesses in Service Area: 38
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 002700
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
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The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 1,285
Total Number of Households in Service Area: 551
Total Number of Businesses in Service Area: 56
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 002800
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 972
Total Number of Households in Service Area: 405
Total Number of Businesses in Service Area: 42
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile



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Service Area Name: St. Louis CT 003200
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 2
Total Population in Proposed Service Area: 856
Total Number of Households in Service Area: 445
Total Number of Businesses in Service Area: 37
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area:
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 003400
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 1
Total Population in Proposed Service Area: 1,439
Total Number of Households in Service Area: 634
Total Number of Businesses in Service Area: 62
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40



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Service Area Type: Middle Mile
Service Area Name: St. Louis CT 010100
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 3
Total Population in Proposed Service Area: 2,657
Total Number of Households in Service Area: 1,096
Total Number of Businesses in Service Area: 115
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 010500
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 69
Total Population in Proposed Service Area: 3,275
Total Number of Households in Service Area: 1,215
Total Number of Businesses in Service Area: 142



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Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 010600
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 284
Total Population in Proposed Service Area: 5,463
Total Number of Households in Service Area: 2,062
Total Number of Businesses in Service Area: 237
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 3
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 011100
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.



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Total Square Miles in Service Area: 204
Total Population in Proposed Service Area: 6,529
Total Number of Households in Service Area: 2,336
Total Number of Businesses in Service Area: 283
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 4
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 011200
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 441
Total Population in Proposed Service Area: 3,144
Total Number of Households in Service Area: 1,186
Total Number of Businesses in Service Area: 136
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 011300
Rural Classification of the Last Mile Service Area: Rural



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Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 496
Total Population in Proposed Service Area: 2,259
Total Number of Households in Service Area: 877
Total Number of Businesses in Service Area: 98
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: St. Louis CT 011400
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 983
Total Population in Proposed Service Area: 3,296
Total Number of Households in Service Area: 1,367
Total Number of Businesses in Service Area: 143
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 2
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40



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Service Area Type: Middle Mile
Service Area Name: St. Louis CT 012100
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 169
Total Population in Proposed Service Area: 5,187
Total Number of Households in Service Area: 2,043
Total Number of Businesses in Service Area: 225
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 3
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 36,306
Estimated Percentage of Households with Access to Broadband: 62
Estimated Percentage of Households Subscribing to Broadband: 40

Service Area Type: Middle Mile
Service Area Name: Florence Served
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.

Total Square Miles in Service Area: 201
Total Population in Proposed Service Area: 2,992
Total Number of Households in Service Area: 1,243
Total Number of Businesses in Service Area: 72
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 7
Unemployment Rate in the Service Area: 10
Median Income in the Service Area: 34,751
Estimated Percentage of Households with Access to Broadband: 80



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Estimated Percentage of Households Subscribing to Broadband: 60

Service Area Type: Middle Mile
Service Area Name: Florence CT 990200
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
 The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 287
Total Population in Proposed Service Area: 2,096
Total Number of Households in Service Area: 890
Total Number of Businesses in Service Area: 50
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 5
Unemployment Rate in the Service Area: 10
Median Income in the Service Area: 34,752
Estimated Percentage of Households with Access to Broadband: 60
Estimated Percentage of Households Subscribing to Broadband: 40

F. Community Anchor Summary

Community Anchor Summary	
Schools (k-12)	■
Libraries	■
Medical and Healthcare Providers	■
Public Safety Entities	■
Community Colleges	■



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Public Housing	■
Other Institutions of Higher Education	■
Other Community Support Organization	■
Other Government Facilities	■
TOTAL COMMUNITY ANCHOR INSTITUTIONS	■
Historically Black colleges and Universities	0
Tribal Colleges and Universities	0
Alaska Native Serving Institutions	0
Hispanic Serving Institutions	0
Native Hawaiian Serving Institutions	0
TOTAL MINORITY SERVING INSTITUTIONS	0

G. Project Benefits

Demographics

Jobs	
How many direct jobs-years will be created from this project?	29
How many indirect jobs will be created from this project?	576
How many jobs will be induced from this project?	341



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Methodology used to estimate jobs:

Merit Network estimates the total jobs created by the REACH-3MC II project will be 946 job-years. The methodology used to determine the job-years created by this project came from the Council of Economic Advisors, May 2009. Specifically, Merit utilized the methodology found in Table 5 of the Council of Economic Advisers “Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009.”

Following Table 5 Methodology, Merit first took the total Projected Expenditures for the project of \$87,049,114 and divided it by \$92,000 (estimated of one job-year of government spending), which resulted in the total jobs created of 946 job-years. In order to determine jobs created for direct and indirect, we allocated the proposed project costs into direct and indirect categories, as follows:

Indirect: \$82,858,261

Direct: \$4,190,853

Following Table 5 Methodology 64% of each category, results are:

Indirect: $\$82,858,261 \times 64\% = \$53,029,287$

Direct: $\$4,190,853 \times 64\% = \$2,682,146$

The induced job-years were determined by total projected expenditures for the project of \$87,049,114 and multiplied by 36%, results = \$31,337,681. The results were then divided by \$92,000 (equivalent of one job-year).

Using this methodology determined the direct, indirect, and induced effects of the spending on job creation.

Indirect: $\$53,029,287 / \$92,000 = 576$ job-years

Direct: $\$2,682,146 / \$92,000 = 29$ job-years

Induced: $\$31,337,681 / \$92,000 = 341$ job-years

Project Impact:

REACH-3MC II will deliver high-speed connectivity to community anchor institutions (CAIs), homes, businesses and last mile providers (ISPs) by way of middle mile infrastructure. The project will enable these entities access to a host of services from a competing group of sub-recipient companies. The network serves to enact the State of Michigan’s “Michigan’s Push for



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Broadband,” and provides an essential footprint for Michigan’s Next Generation (NG) 911 system. REACH-3MC II will leverage Merit’s successful first round BTOP proposal, REACH-3MC, and Merit’s existing network to complete a statewide CAI network—a resource that is becoming increasingly vital to CAIs in the current economic recession and quickly establishing itself as the future of network topology.

REACH-3MC II is a partnership between Merit Network, Inc., a 501(c)(3) operating Michigan’s education and research network, The Michigan 911 Administrator and 7 commercial sub-recipients. This is a powerful combination. Merit’s service focuses on the needs of CAIs and public safety. All 7 sub-recipients will provide middle mile service to ISPs and businesses. 5 sub-recipients have existing last mile operations. Leveraging this middle mile infrastructure, these organizations will expand into new service areas and augment service offerings.

The number and diversity of sub-recipients participating in REACH-3MC II ensure the network will be a sustained investment that delivers results. Each sub-recipient brings a different value proposition to the service area, employing different technologies, content and service packaging. Competition and open access policy in the service area will enforce market rates, ensuring that consumers in remote areas will not pay more for the same service than those in metropolitan areas.

More than 60 last mile providers have expressed interest in initially connecting to the network, 16 in writing. By the five year mark, projections indicate that 119 service providers using the full range of technology options will get middle mile services from REACH-3MC II.

REACH-3MC II includes 2 spurs, one to Duluth (MN) and the other to Green Bay (WI), that will supply diverse connections to National Points of Presence. These diverse paths will greatly improve reliability throughout the service area. Commercial sub-recipients have the opportunity to provide middle mile service to the counties the spurs traverse in WI and MN.

There are 497 CAIs located within the Michigan (MI) service area. 61 CAIs will be connected directly to REACH-3MC II as it is built. REACH-3MC II has 187 letters of support and commitment from CAIs who will connect to the network. It is anticipated that the majority of the latter will connect through fiber builds or via circuits (the cost of which REACH-3MC II drive down).



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██████████ in the UP has ██████████, located in ██████████. REACH-3MC II will connect ██████████ with a minimum of a 1 Gbps connection (100 X current), with the ability to scale to higher speeds at minimal costs of equipment. This will enable them to fully share resources between campuses: video content and learning applications, datacenter back-up, voice over IP and more. Not only will all of the latter improve the quality of education, but it will create enormous cost-savings.

Indirectly, CAIs in every region of MI will benefit from the actualization of REACH-3MC II, because it will complete a statewide network for CAIs. Merit operates America’s longest-running education and research network, today connecting 40 % of private universities, 92 % of public universities, 59 % of community colleges, 58 % of K-12 ISDs, 55 % of library cooperatives and 26 % of public libraries in MI—the vast majority of those not connected due to a lack of fiber or affordable fiber in their area.

Every community college will have the ability to access a statewide network, enabling them to share resources and offer opportunities to their students that are currently unavailable. Through the Michigan Community College Virtual Learning Collaborative (MCCVLC), an initiative that will benefit tremendously from REACH-3MC II, students will have the opportunity to telecommute and take classes virtually at any community college campus in Michigan.

REACH-3MC II was designed with input from the State of Michigan 911 Administrator. The fiber, leveraging REACH-3MC and Merit’s existing network, will provide a footprint to connect all Public Safety Answering Points (PSAPs) to a robust IP-based infrastructure that will create cost-savings and enable consolidation of resources. The redundancy, security, interoperability, and flexibility of this network will be paramount to maintaining a reliable 911 system in Michigan, and provide options and functions to meet the changing demands of public safety.

The benefits of a statewide CAI network are not limited to community colleges and public safety, but the same notion of increasing opportunities and consolidation applies. Libraries will leverage the network to share subscription fees and access to databases. K12 school districts will save through the sharing of networking resources like datacenters and bus-routing applications.

Advanced Placement (AP) classes, which provide students with a significant academic advantage in college preparation, are only available on a limited basis in remote districts—if at all. Foreign language classes tell a similar story: students in remote areas have fewer opportunities than those



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in metropolitan areas. Utilizing the statewide CAI network, students anywhere in the state will be able to take advantage of both AP and foreign language courses, leveling the playing field and ensuring that every Michigan school is equipped to produce a skilled workforce that will drive the 21st century economy.

REACH-3MC II will make it feasible for CAIs to connect at speeds of 1 Gbps or greater. The FCC National Broadband Plan sets a goal to connect every CAI in America at 1G bps by 2020. REACH-3MC II will place CAIs in the service area almost a decade ahead of schedule. Merit is Michigan's Internet2 Connector, which means that CAIs connected through Merit will have access to an even larger CAI network with connections across the nation and worldwide.

The spurs to Duluth and Green Bay provide diverse paths to complementary CAI networks, WiscNet, Boreas-Net and the Northern Tier Network. Merit and the latter will all directly interconnect, providing better speed between colleges and universities in the region for research. This is identified in the UCAN effort of the National Broadband Plan.

Regional networks, like the Michigan CAI network created by REACH-3MC II, are increasingly vital to networking and connectivity. Communication applications like messaging and email, voice over IP phone service and Cloud computing are examples of networking functions in which it is advantageous to use regional networks. They require a more direct path, increasing the importance of regional connectivity over general purpose connections to the Internet. The networking environment is no longer like a tree with all branches passing through the trunk. Now it is more a mesh with shortcuts between branches.

This change in networking is magnified when the network members are related, such as schools or libraries. This more advanced mesh model brings substantial benefits. The performance and reliability is better because the routes are shorter and there are more ways to avoid congested paths.

To incur the full benefits of a CAI network, institutions cannot have negative incentives to use the network. Merit offers an "all-inclusive" connection model to CAIs. Member institutions pay a single price for a 1 Gbps connection, regardless of how much bandwidth they use. This way, they are much more likely to leverage the network for sharing and consolidation. We have seen this trend accelerate on Merit's current fiber network. In addition, as a provider of Cloud services



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to CAIs, Merit’s statewide CAI network will provide the opportunity for members to reduce their costs by rationalizing services in Merit’s Cloud.

The State of Michigan identified the values listed in this impact statement in their creation of “Michigan’s Push for Broadband.” REACH-3MC II brings the state vision to fruition. The vision identifies scalable high-speed backbone for CAIs and public safety, intra-government connectivity, and better service to homes and businesses. Michigan is a decentralized state by law and tradition. Consolidation and the sharing of services among all government entities and public institutions will be the only option as State Government improves efficiency. The dedicated high-speed broadband availed by REACH-3MC II is the key.

Vulnerable Populations:

Michigan has lost more than 300,000 jobs since 2000, including 170,000 manufacturing jobs. REACH-3MC II will help Michigan cope with the staggering loss of manufacturing jobs. As the state must transition to an information-based economy, its entire citizenry needs access to affordable, high-speed broadband at home, in the workplace and especially at its community anchor institutions (CAIs).

Michigan has been in a recession since the early part of the century. Michigan has led the nation in unemployment for the last four years. Of the 29 counties in the REACH-3MC II Michigan service area, 27 are economically distressed. Each of the two remaining counties meet one of two economically distressed criteria. Ushering in broadband to these underserved areas will create jobs and stimulate economic growth in a state with the most need for latter of any in the nation.

The REACH-3MC II service area has been hit particularly hard. Per capita income in the Upper Peninsula is 48% to 60% of the statewide average which is only 92% of the national average. Baraga County alone has 28% unemployment.

Because of the lack of jobs, young people are leaving the region to find work. The result is that 17% of the population in the Michigan service area is over 65 as compared to 12.8% nationwide. Over the entire service area, the proportion of seniors is 15%.

The region has over 3 times the concentration of ethnic Native Americans as the national average. REACH-3MC II will serve Bay Mills Tribal College and pass through Bad River Tribal Lands in Northern Wisconsin. Additionally, many ethnic Native Americans live throughout the service area and will benefit from REACH-3MC II.



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Underserved for broadband and economically disadvantaged tend to go together. The loss of young people results in a much higher percentage of seniors. Adding the high proportion of ethnic Native Americans describes a vulnerable population that will benefit from REACH-3MC II.

Level of Need:

The level of need for REACH-3MC II can best be understood by looking at the following indicators. The vast majority of the service area faces extreme economic hardship. The service area is underserved according to last mile BTOP standards. There is a lack of technology and high-speed, affordable backhaul service in the service area and a lack of diverse paths out of the service area. Community Anchor Institutions(CAI) in the service area express that their needs are not being met in 187 letters of support. The need for a statewide CAI network is substantiated in letters of support from CAI leadership organizations.

Economic Hardship

REACH-3MC II is focused on the needs of Michigan (MI) and MI's efforts to fix its faltering economy. To address MI's need for diverse, high-speed paths out of the state, the service area encompasses 8 counties in Wisconsin (WI) and 1 in Minnesota (MN). Of the 8 WI counties, 7 meet 1 of 2 criteria for economically distressed. Two meet both. Twenty-seven of twenty-nine counties in the MI service area are economically distressed. Extending broadband to these financially troubled areas will create jobs and bolster economic growth in a state with the most need of any in the nation.

Michigan has had the highest unemployment rate in America for 4 years running. Michigan has lost more than 300,000 jobs since 2000, including 170,000 manufacturing jobs. As the state must transition to an information-based economy, its entire citizenry needs access to affordable, high-speed broadband at home, in the workplace and especially at CAIs.

CAIs provide communities with vital services and resources, the importance of which increases dramatically during times of economic hardship. In the recession, CAIs have been forced to provide more with smaller budgets. By extending access to high-speed, affordable broadband into underserved areas of the state, REACH-3MC II will enable CAIs to consolidate, and share resources.



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Last Mile Underserved

REACH-3MC II serves 29 MI counties, 24 of which are underserved according to BTOP standards. In the 5 remaining counties, there are underserved census tracts. The WI service area contains 5 underserved counties. St. Louis County, MN is considered underserved in the aggregate, though in the areas REACH-3MC II fiber traverses, 20% of census tracts are underserved.

The service area of REACH-3MC II contains the most underserved parts of MI. We surmise that many underserved counties have significant parts that are unserved—especially in the Upper Peninsula (UP). According to the UP Association of County Commissioners, all 15 counties in the UP are underserved, 10 of which are in the REACH-3MC II service area.

The project is designed to be a viable investment and create the statewide infrastructure called for in the State's "Michigan's Push for Broadband" thus the fiber traverses some served areas in order to connect underserved areas with better service. For REACH-3MC II to provide viable service there must be diverse paths from the service area to network access points. This is especially an issue for the UP. By including spurs to Duluth and Green Bay, the UP has three paths, providing a level of robust service the UP has not known to this day.

Backhaul Technology, Availability and Cost

REACH-3MC II's service area has few viable options for backhaul. Available backhaul service that is too expensive due to tariff rates poses the same problem as non-existent backhaul. The primary problem in the service area is the high cost of backhaul and the unavailability of the right technology (Dark Fiber, Waves, Gig Ethernet, SONET).

Dark Fiber is the most viable technology for CAI networks, like the statewide CAI network REACH-3MC II will create, leveraging REACH-3MC (955-mile BTOP-funded project in round one) and Merit's existing 1600-mile CAI network. Once the capital investment is made to own Dark Fiber, it is cheaper and significantly more sustainable compared to long-term Circuit leases. Dark fiber also scales very well into the future. Leased Circuits generally decrease in cost over the years of a lease; however, the savings are paltry when considering the future scalability of Dark Fiber.



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Standard technology enables a single pair of fiber to support 40 10G Waves. For a one-time upgrade in optronics (easily paid off in a fraction of the years in a lease) an owner can increase the capacity by 10 times. Dark Fiber is not only the most viable technology for CAI networks, but for regional, commercial-provider backbones (like those of REACH-3MC II sub-recipients).

Dark Fiber is not available in the REACH-3MC II service area. ATT, Verizon, Comcast and Charter may have fiber in some areas, but do not sell Dark Fiber. Smaller CLECs and ILECs in the service have Fiber, but most will not sell. Even so, CLEC and ILEC fiber in the service area is only local. It is not connected to infrastructure needed to form the regional network created by REACH-3MC II or provide the backhaul REACH-3MC II will provide.

Absent Dark Fiber, Gig Ethernet, TDM and/or Waves are key to fast, economical backhaul. Waves are only available in the North and Northeast Corridor at tariff rates. Ten Gbps Ethernet is not available. Gig Ethernet is available in parts of the North and Middle Corridors. High speed TDM is available in the North and Northeast Corridor, but again only at tariff rates. Local loops in the region are limited to 155 Mbps TDM. The available technology will not meet the needs of CAIs according to their letters of support and the FCC National Broadband Plan. Nor will available technology provide a foundation for last mile providers to expand or upgrade their service.

The following exemplify the lack of right technology and affordable backhaul in the service area:

Boardman River Communications (BRC, sub-recipient) required a 45 Mbps IP circuit in [REDACTED]. The only provider (ACE) that could deliver it quoted \$11,000 per month. Charter offered to provide the service for less (\$4300), but only if BRC paid to build 9 miles of fiber for \$185,000 first. Great Lakes Comnet (GLC, sub-recipient) plans to charge [REDACTED] for this service in [REDACTED]. Lynx (sub-recipient) plans to charge [REDACTED] per month for over twice the service [REDACTED]).

A local ISP in Alpena County (Northeast Corridor) currently pays \$14,000 for a DS3 (45 Mbps) circuit from AT&T, \$150,000 per year. The high price of the circuit prohibits them from providing service to more end-users. One reason for the high price is that the AT&T circuit connects the ISP in Verizon territory, and must cross ILEC boundaries to tie the circuit back to AT&T facilities in Saginaw (another region of the state). REACH-3MC II sub-recipients will not be constrained by this network bureaucracy. The network could provide two 100 Mbps circuits



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for 1/4 the cost of the current circuit, allowing the ISP to improve their service and expand their coverage area.

In Rogers City (Presque Isle County, Northeast Corridor), GLC was quoted \$1,200 per month with a onetime cost of \$200,500 for a 10 Mbps connection (\$272,500 total over 5 years). REACH-3MC II offers 10 times the speed at \$93,000.

Before ACD.net could get backhaul service in Cadillac (Wexford County, Middle Corridor) they would have to pay \$85,000 in construction costs. T1s in the service area, which are not even sufficient for serving last mile providers, cost between 3 and 5 times what they do in served areas of MI. For about the same price, REACH-3MC II will provide last mile providers roughly 70X the speed.

CAIs

Merit's backbone is currently 10 Gbps where Merit has dark fiber. Some anchors are connected with multiple 10 Gbps connections while many others have multiple 1 Gbps connections. Every year Merit upgrades its infrastructure to meet growing demand. CAIs in the service area that use circuits for local loop, or are connected at the end of a circuit-based backbone, do so because it is their only option. Current ILEC networks do not necessarily have infrastructure where it is needed to serve these CAIs. The result is CAIs cannot obtain the speed they require at a cost they can afford. 187 CAIs across the service area have sent letters describing this need.

Statewide CAI Network

The nature of networks is changing. During the early phase of the Internet, regional networks served as conduits to Tier 1 Internet Providers (AT&T, Verizon, etc.). Tier 1s gave the Internet its value by serving as a central trunk so that any user could get to any site on the Internet. They still serve this same purpose, but it is less important in the complete picture. For example, 10 years ago over 95% of the traffic that left a campus on the Merit Network went to the Tier 1s. Last year less than 15% did.

Michigan does not just need better service to remote areas. It also needs a statewide network for its CAIs. Michigan itself must transform its public institutions as it transforms its economy. This requires cooperation within the government, and between government, CAIs and the private



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sector. REACH-3MC II will provide an important piece of the foundation upon which the transformation can occur. It will also integrate the statewide network with those of neighboring states to enhance the benefit.

CAI networks need to be focused on their members, but interconnected so that better consolidation and economies of scale can be achieved. Michigan CAIs need the benefits of statewide networks to help lower costs and improve service. The majority of MI CAIs already are Merit members, but for most of those that are not it is the cost of backhaul that precludes them from connecting to the Merit statewide CAI network. Access to a robust statewide CAI network is an important goal for MI’s CAI leadership organizations. This need is substantiated by letters from the State, the Intermediate School District Association, the State Superintendent, the Public University President’s Council, the State Librarian, the Michigan Community College Association and the State 911 Administrator. Michigan is on the verge of being able to provide a practical networking solution with diverse paths to neighboring counterpart networks for all CAIs, regardless of their location.

Public Universities currently have a network—though the universities in the UP only achieve this through their Merit Membership, as Merit shoulders the majority of the high cost of connecting them to Public Universities elsewhere in the state. REACH-3MC will lower this cost and provide Universities in the UP much needed high-speed, diverse paths.

Community Colleges ██████████ and ██████████ as well as ██████████ are not able to connect to other MI community colleges by Dark Fiber. All want to be able to share in the benefits of a CAI network as advocated by the Michigan Community College Association.

The Michigan Department of Education has long identified the need for a statewide K12 network. School districts in the service area are among the smallest and therefore will benefit the most from the sharing of resources a K12 network enables.

Due to the need to update first-response public safety, the State commissioned a study on transitioning to Next Generation (NG) 911 service. The resulting plan has a dedicated high-availability network as its foundation. The cost of such a network places the implementation of this plan in doubt. With Merit’s existing network, REACH-3MC and REACH-3MC II, a



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statewide backbone will be in place, making an incremental move to the NG 911 system not only possible, but likely in the future.

The State of Michigan identified the need to rationalize networking and communication on a dedicated network in “Michigan's Push for Broadband.” The plan also seeks to boost end-user connectivity in underserved areas. REACH-3MC provided a critical first step: REACH-3MC II will complete this vision.

H. Technology

Technology Type

Indicate the technology that will be used to deliver last mile services. The following items were selected:

Wireline - Fiber-optic Cable

Other:

Technology Questions

Methodology for Area Status:

The primary method for determining the status of the REACH-3MC II middle mile service area utilized the most up-to-date FCC Form 477 Broadband Deployment Data. In February of 2010, the FCC released “High-Speed Services for Internet Access: Status as of December 31, 2008,” a report by the Industry Analysis and Technology Division Wireline Competition Bureau. It references the state of broadband subscribership in America as of December 31, 2008, roughly two months before ARRA legislation was signed into law.

The “Internet Access” report includes two critical improvements to the FCC Form 477 Broadband Deployment Data collection method, which began in 2000, that led Merit to utilize the results. First, the level of granularity for data collection was increased to account for counties and census tracts—the two metrics REACH-3MC II uses to define service area. Second, the data accounts for the NOFA/BTOP 786 Kbps down and 200 Kbps up definition of broadband. The report makes reference to both BTOP and the NOFA in more than one instance.



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Merit examined the information referenced in the “Internet Access” report for census tracts and counties in the REACH-3MC II service area. These figures list the number of fixed high-speed connections per 1000 households according to BTOP standards (fhsc per 1000 hh BTOP). These numbers are delineated with hierarchical levels of service. For example, a county that is listed with 0-200 aggregate fhsc per 1000 hh BTOP in the aggregate has a subscribership rate of 20% and is therefore considered underserved by NOFA standards. A census tract with 200-400 fhsc per 1000 hh BTOP has a subscribership of 40% and is also underserved. Each according to the (iii) criterion of underserved in NOFA: broadband subscribership is 40% of households or less.

Utilizing this data referenced in the “Internet Access” report, Merit has determined that 24 of the 29 counties in Michigan are underserved. Of the five remaining served counties, each are comprised of underserved census tracts. Two of the eight Wisconsin counties are underserved, while five of the remaining six have underserved census tracts. St. Louis County, Minnesota is considered underserved in the aggregate; though, it has a very large land mass. REACH-3MC II will only serve the southernmost portion of the county, which is roughly 80% served and 20% underserved.

Description of Network Openness:

REACH-3MC II will be an open network. All organizations will be able to purchase reasonably priced services from the network. This will not just be based on policies of the REACH-3MC II sub-recipients, but will be enforced by the structure of the network partnership. In each of the network access points, there will be multiple providers. 2 of the 7 sub-recipients are strictly middle mile providers. Through their business models these companies have incentive to provide high value service to last mile providers and businesses. In addition, every partner on the project intends to offer middle mile service in addition to providing their own last mile services. This additional level of completion will result in a wide array of value propositions available throughout the network.

All members of REACH-3MC II have posted a non-discrimination policy. The effectiveness of these policies will be strengthened by the natural completion of REACH-3MC II. Consumers will demand non-discrimination, and take their business to the partner that will provide it.

One more indication of the open access principles of this network concerns hut space. REACH-3MC II will include a number of huts in the UP. Initially two partners, [REDACTED] and [REDACTED] will



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occupy these huts, but they will provide space at market rates to any entity that wants to rent space.

Below is as paraphrase of Merit’s Policy which most of the partners have used as a model for their own. For space reasons, partner policies are links, and not the full text.

Merit Network Open Network and Network Management Policy
http://www.merit.edu/policies/network_openness.php

Merit Network employs standard best effort Internet delivery policy to ensure that any organization, institution or entity connected, directly or indirectly, to Merit's fiber backbone may exercise choice in lawful Internet content, web-based application and use of Merit or competitor service, including any device which is not harmful to the network. Merit Network does not favor any lawful Internet applications or content over others, and is committed to enabling competition among network providers, application and service providers, and content providers.

Merit Network offers network interconnections where technically feasible, rates and terms are negotiated in good faith with requesting parties. Merit actively engages and encourages open settlement-free peering with providers and operators. Merit's network management policies prohibit the discrimination of legitimate or legal use of network capacity bandwidth by application, source or use of the network.

- ACD.Net: www.acd.net/netNeutrality.cfm
- Boardman River: www.brconline.net/modules.php?name=Content&pa=showpage&pid=26
- CCI: [packerlandbroadband.com/ccisystems/CCI Systems Network Openness Policy.pdf](http://packerlandbroadband.com/ccisystems/CCI%20Systems%20Network%20Openness%20Policy.pdf)
- Great Lakes Comnet: glcom.net/nop/
- Lynx: <http://golng.com/policy.php>
- PFN: pfllc.net/policy/index.php
- Zayo Bandwidth: <http://www.ftgx.com>

System Design:

Merit Network is proposing the deployment of an advanced networking state of the art fiber optic network. Merit will deploy a multiple strand count () fiber optic backbone throughout the state that will increase broadband availability to un-served and underserved areas. Merit has engineered a hybrid CWDM (Course Wave Division Multiplexing) / DWDM (Dense



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Wave Division Multiplexing) fiber optic network that will deliver a host of broadband connectivity options in a very cost effective manner.

CWDM is a technology in which fewer signals are multiplexed onto a single fiber for short haul transport. The wide availability and low cost of CWDM components make it ideal for middle mile aggregation to core sites and will allow for extensive network propagation to communities throughout the state.

DWDM is a technology which multiplexes many optical signals on a single optical fiber by using different wavelengths, or colors, of light to carry different signals. This allows for a multiplication in circuit capacity and facilitates high bandwidth capacity over long distances.

The network design is flexible enough to allow Merit to offer broadband Ethernet, leased fiber, and wave services to anyone where capacity is available. Additionally, Merit will be able to offer last mile and other middle mile providers the ability to connect OC-48/OC-192, DS-1, DS-3 to the Merit DWDM optical network. This will allow other networks the ability to leverage the high speed, high capacity DWDM long haul network. Details for OC-48/OC-192, DS-1, DS-3 service offering can be viewed in the network diagram (Central Office/ OC-48/OC-192) area and in the hardware cost sheets attached in this proposal.

Merit's existing network has fiber connectivity to Chicago and Cleveland to provide access to major commercial, research and educational national networks. Including key Internet providers (AT&T, Sprint, Level-3, Qwest), Internet2, ESnet, Starlight and the nearby state networks of Ohio, Indiana, Illinois, Wisconsin and Minnesota.

The proposed fiber plant plan provides between [REDACTED] strands to be deployed throughout the state. Strand counts on the routes vary based on need and equity partner requirements. A minimum of [REDACTED] of those strands will be dedicated for Merit's use. [REDACTED] of the [REDACTED] strands will be used to provide long haul optical transport for a 40 wave DWDM system with nodes located at strategic core sites across the state of Michigan. An additional [REDACTED] stands will be utilized to provide optical transport and connectivity for regional CWDM systems that will deliver access to the long haul core sites. The remaining [REDACTED] Merit strands are for future expansion, lease fiber offering, testing and emergency recovery. The balance of the strands will be utilized by sub-recipients to this application as well as allow for significant growth and expansion.



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Ethernet Service Offerings: Merit’s Ethernet service offering will cost effectively extend the reach of the DWDM core network to vast un-served and underserved communities to gain access to broadband Ethernet connectivity. Merit will use █ strands of fiber to interconnect various communities throughout the state to the DWDM core sites. This interconnectivity will provide up to █ Ethernet connectivity to multiple community members throughout the Merit fiber network.

OC-48 / OC-192 Service Offering: The Merit DWDM service offering will also accommodate the need to transport OC-48 (2.5 Gig) / OC-192 (10 Gig) traffic. This would allow the partner organizations to transport OC-48 / OC-192 data from one OADM (Optical Add Drop Multiplexer) core site to another OADM core site. The main objective of this service is to deliver traffic to major Telco offices for voice traffic or an Internet backbone provider for TCP/IP data traffic.

Lease Fiber: To further leverage the fiber being deployed, Merit will have the ability to offer dark fiber resources to lease to 3rd parties. This would allow parties not currently coordinating with Merit the ability to access fiber resources where available.

Wave Service Offerings: Merit’s DWDM service offering will include two solutions for partner network connectivity. The first will be a DWDM wave offering that will allow partners the ultimate in flexibility for transporting their long haul data across the state. Merit will offer partners waves or colors and allow them to add their own electronics to transport their data in a way that is most beneficial to them. Wave options will be █ and █. Last, Merit will facilitate direct member attachment to the DWDM system through a █ at each OADM site. This will immediately accommodate up to █.

Is the applicant seeking a waiver pursuant to section IX.C of the NOFA so as to sell or lease portions of the award-funded broadband facilities during their life?

No

I. Project Budget

Project Budget



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	Federal Grant Request	Match
Last Mile	0	0
Middle Mile	69,639,291	17,409,823
Total	69,639,291	17,409,823

Project Budget Total: \$87,049,114

Match Percent: 20.0%

Projects Outside Recommended Funding Range:

- Not Applicable

Outside Leverage	
Applicant is providing matching funds of at least 20% towards the total eligible project costs?	Yes
Matching cost detail	<p>Merit Network, Inc. is the applicant of record for the BTOP grant submission. Seven sub-recipients have joined with Merit to support the project with the goal to better serve a wider community thereby laying a foundation for economic growth that will in turn promote business models that reinforce expansion. Due to the sparsely populated nature of the proposed service area and consequently a protracted time for revenue recovery, Merit and each of the sub-recipients will be providing matching funds of 20% for their share of the project costs for a total cash match of \$17,409,823. In-kind matches from state, regional or private agencies were not available due to the severe economic challenges that currently exist in Michigan.</p> <p>Breakout of project cost share:</p> <p>Merit Network, Inc.- Grant Applicant</p> <ul style="list-style-type: none"> •Use of Funding = Infrastructure •Total Project Cost Related to Grant Applicant = ██████████ = ██████████ •Cost Match = 20%



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	<ul style="list-style-type: none">•Cost Match Amount = [REDACTED]•Cost Match % of Total Project Budget = [REDACTED]•Funding = [REDACTED][REDACTED] <p>CCI Systems, Inc. – Sub-Recipient</p> <ul style="list-style-type: none">•Use of Funding = Infrastructure•Total Project Cost Related to Sub-Recipient = [REDACTED]•Cost Match = 20%•Cost Match Amount = [REDACTED]•Cost Match % of Total Project Budget = [REDACTED][REDACTED] <p>ACD Telecom, Inc.- Sub-Recipient</p> <ul style="list-style-type: none">•Use of Funding = Infrastructure•Total Project Cost Related to Sub-Recipient = [REDACTED]•Cost Match = 20%•Cost Match Amount = [REDACTED]•Cost Match % of Total Project Budget = [REDACTED]•Funding = [REDACTED][REDACTED] <p>Zayo Bandwith, LLC.- Sub-Recipient</p> <ul style="list-style-type: none">•Use of Funding = Infrastructure•Total Project Cost Related to Sub-Recipient = [REDACTED]•Cost Match = 20%•Cost Match Amount = [REDACTED]•Cost Match % of Total Project Budget = [REDACTED]• [REDACTED] <p>Boardman River Communications LLC - Sub-Recipient</p> <ul style="list-style-type: none">•Use of Funding = Infrastructure•Total Project Cost Related to Sub-recipient = [REDACTED]•Cost Match = 20%•Cost Match Amount = [REDACTED]
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	<ul style="list-style-type: none"> •Cost Match % of Total Project Budget = [REDACTED] •Funding = [REDACTED] <p>Great Lakes Comnet, Inc.- Sub-Recipient</p> <ul style="list-style-type: none"> •Use of Funding = Infrastructure •Total Project Cost Related to Sub-Recipient = [REDACTED] •Cost Match = 20% •Cost Match Amount = [REDACTED] •Cost Match % of Total Project Budget = [REDACTED] •Funding = [REDACTED] •[REDACTED] <p>LYNX Network Group, LLC- Sub-Recipient</p> <ul style="list-style-type: none"> •Use of Funding = Infrastructure •Total Project Cost Related to Sub-Recipient = [REDACTED] •Cost Match = 20% •Cost Match Amount = [REDACTED] •Cost Match % of Total Project Budget = [REDACTED] •Funding = [REDACTED] •[REDACTED] <p>Peninsula Fiber Network, LLC - Sub-Recipient</p> <ul style="list-style-type: none"> •Use of Funding = Infrastructure •Total Project Cost Related to Sub-Recipient = [REDACTED] •Cost Match = 20% •Cost Match Amount = [REDACTED] •Cost Match % of Total Project Budget = [REDACTED] •Funding = [REDACTED]
Unjust enrichment	<p>Merit Network, Inc. is the lead applicant of record for the BTOP grant submission along with seven sub-recipients as listed below:</p> <p>ACD.Net, Inc. Lynx Network Group, LLC CCI Systems, Inc. Zayo Bandwidth, LLC</p>



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	<p>Boardman River Communications, LLC Peninsula Fiber Network, LLC Great Lakes Comnet, Inc.</p> <p>Neither Merit Network, Inc. nor any of the seven sub-recipients have applied for any Federal support for non-recurring costs for the project as describe in this BTOP application. Furthermore, no portion of this project is currently receiving nor has received any Federal support for non-recurring cost.</p>
<p>Disclosure of federal and/or state funding sources</p>	<p>In April of 2005, Merit Network, Inc [REDACTED] connecting, among others, the following major end points [REDACTED] Merit completed the build on time, within budget, and has consistently met its obligations [REDACTED] in a timely manner. Though the [REDACTED] end point is within the REACH-3MC II service area, there will be no duplication of builds. REACH-3MC II will compliment and complete the fiber already in place.</p> <p>Merit Network, Inc. is an approved E-rate vendor and as such assists its members in obtaining funding through the Universal Service Fund. The members received approximately [REDACTED] in funding year 2007 and [REDACTED] in funding year 2008 and expect to receive [REDACTED] million in funding year 2009. To aid its members, Merit invoices its members at the approved E-rate discount percentage and requests reimbursement (as required under the USAC discount program regulations) for the discounted amount directly from USAC. Merit receives no USAC funding to support operational or capital cost of any kind; only the members receive monetary benefit from the USAC funding. Merit also supports its members in the same capacity under the USF Rural Health Care Program. Disbursements totaled [REDACTED] in fiscal year 2007. Disbursements for fiscal years 2008 and 2009 are expected to be the same. Once again, Merit receives no USF Rural Health Care Program funding to support operational or capital</p>



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	<p>cost of any kind; only the members receive any monetary benefit from the funding.</p> <p>Merit Network, Inc. has not received or requested any other federal or state funding for projects to which the application relates.</p> <p>The Michigan 911 Administrator’s Office participated in the planning of the REACH-3MC II network and contributed no funding of any kind to the project.</p> <p>Of the REACH-3MC II sub-recipients, only [REDACTED] participates in USF funding. [REDACTED] has indicated that REACH-3MC II does not relate to this funding.</p> <p>Three sub-recipients [REDACTED] [REDACTED] have each submitted a proposal to construct and operate the Michigan Public Health Institute (MPHI) Rural Health Care Pilot Project (RHCPP) network, administered by MPHI and funded with a grant from the FCC. REACH-3MC II is a separate project that does not bear in any way on the MPHI RHCPP or vice-versa.</p>
Budget reasonableness	<p>REACH-3MC II will construct over 1172 miles of fiber-optic infrastructure to support Merit and seven sub-recipients middle mile services offerings. Merit, the lead-applicant, has significant experience constructing and provisioning networks for organizations using a cost-recovery model. The network is built to provide maximum flexibility in service provisioning for a wide range of applications.</p> <p>Admin/Legal</p> <p>Pre-award staffing and fees are based on a review of workload, going rates and NTIA compliance needs. Merit is a prior recipient of numerous Federal and State grants. Merit’s CFO alone has over 15 years of experience managing Government grants.</p>



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	<p>varying mile costs for location, aerial/underground construction and number of strands. CO costs include dual facility access and fiber termination and standard builds supported by vendor estimates and experience.</p> <p>Equipment</p> <p>Optical/network equipment required to connect to the network at █ COs, █ telecom huts, █ ATs. Pole replacement costs are from equipment vendor quotes/pricing contracts. An IRU from the █ is required to connect both sides of Mackinac Straits. An IRU between █ and █ was necessary to complete fiber infrastructure in Eastern Upper Peninsula of MI.</p> <p>Misc.</p> <p>The cost of the Environmental Assessment (EA) is based on responses to an EA RFP issued by Merit for the first round REACH-3MC fiber project. Additional liability insurance is from risk analysis review by AON. Computers, phones, and training are vital to attain project completion in the prescribed time frame.</p>
Demonstration of need	<p>The service area is both sparsely populated and economically distressed. Even considering the projected growth in the use of broadband with the availability of higher speeds and lower costs the total revenue from the service area is relatively modest. As a result, neither Merit nor any single sub-recipient can generate a business case to build, operate, and maintain a fiber infrastructure project of this scale on their own. Moreover, without the federal grant, all the partners working together could not develop a viable business plan. Furthermore, it is unlikely that Michigan could achieve this level of cooperation among competitors without the support of the grant supplement.</p> <p>REACH-3MC II has brought together eight companies that currently</p>



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compete and will continue to compete with each other. This level of collaboration and cooperation is unprecedented; generating significant synergies. The support of Federal funding has brought together eight organizations that have wanted, individually, to improve service in this area for many years. With the cooperation generated by Federal funding and evidenced in REACH-3MC II, competitors have discovered that a share of a larger pie has more financial impact than a slice of a small pie. The power of eight partners through REACH-3MC II will have a significant impact on the residents of the region.

The partnership is supporting a 20% cash match [\$17,409,823] for the project. The project will create a [REDACTED] IRR in the aggregate. The IRR for the network is good but not excessive. By examining the results from operations over eight years, network revenues will be sufficient to retire the debt of the sub-recipients but not reimburse the cash outlay before the end of the eight years and still invest in expanding the network.

Lending institutions in the current economic climate are not interested in exposing themselves to extended payback periods beyond eight years. Furthermore, the amount of additional cash, through debt or other means, required for greater support of this capital project is not available. Partners are committing over \$6,000,000 in corporate cash and are unable to allocate or obtain more in the absence of a lending economy. State and regional governments and other agencies, hardest hit by the economic downturn, are only able to provide political support; monetary assistance is out of the question.

The project pro forma NPV data indicates that additional funding should be carried by the partners. According to the NPV calculations this project should support 30% or greater matching funds. However, due to lack of government assistance, restrictive lending policies, use of all available equity and the projected return on the investment the success of the project is dependent on the level of Federal assistance proposed. The project is engineered to reflect a network build that is



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	both reliable and financially sustainable.
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Funds to States/Territories

States	Amount of Federal Grant Request
Michigan	58,218,447
Minnesota	1,253,507
Wisconsin	10,167,337

Funds to States/Territories Total: \$69,639,291

J. Historical Financials

Matching Funds			
	2007	2008	2009
Revenue	██████████	██████████	██████████
Expenditures	██████████	██████████	██████████
Net Assets	██████████	██████████	██████████
Change in Net Assets from Prior Year	██████████	██████████	██████████
Bond Rating (if applicable)			

K. Project Readiness

BTOP Organizational Readiness

Merit Network is prepared to perform the engineering, operational, managerial and business functions necessary to construct and maintain the network described in this proposal. Today Merit operates a 1600 mile fiber network that serves over 425 organizations with connection



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speeds of up to 10 Gbps. Merit’s network is comprised of owned fiber, leased fiber and leased circuits. All business operations necessary to provide customer service are in place today and ready to accommodate the additional connections to organizations envisioned in this proposal.

Merit’s Network Engineering team will be responsible for finalizing fiber routes, contracting the build, arranging permits, monitoring construction and selecting hardware. For completed network segments, this group will ensure the quality of network performance and implementation of new technologies. The Network Operations team has extensive experience with routing, switch and router configuration, as well as fiber optic equipment. The operations team will collaborate on the design of the network, perform site inspections, oversee the work of fiber contractors, certify completed circuits, and install optronics and electronics.

Merit operates a 24x7 Network Operations Center (NOC) that continuously monitors the network, diagnoses and resolves problems, fields trouble reports from members and performs maintenance. The NOC staff uses leading-edge software tools to perform routine monitoring and troubleshooting, and maintains an ongoing, escalating ticketing system to track problems through resolution.

Merit’s Member Relations team handles customer service and sales, provides service quotes, initiates orders for new services and responds to member requests. Merit’s finance and administration staff performs all accounting, human resources, facilities, finance and grant administration.

Merit Network, Inc. has built and operated networks for over 43 years as Michigan’s education and research network. Merit is capable of building and running this network for the benefit of Michigan. Merit’s heritage includes its leadership role in the National Science Foundation Network (NSFNET), the precursor to the modern Internet.

Merit will add the following positions for the duration of the project build-out: two engineers, one project manager and one assistant, one grant administrator and assistant.

Merit will add the following staff positions to account for its expanded operations resulting from REACH-3MC II: one administrative assistant, one sales representative, one billing staff, two member relations managers, two engineers, one NOC staff.



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All of the sub-recipients are established service providers. Each is capable of operating an expanded network. ACD.net, LYNX and Zayo Bandwidth are all first-round BTOP award winners.

Construction and Vendor Contracts

Merit’s network engineering and operations team will install and manage the optical transport equipment and the network equipment including routers and switches. Merit's team currently manages optical and network devices over a 1600 mile fiber infrastructure in Michigan, with paths to National Points of Presence that traverse Ohio, Indiana, and Illinois. Merit has expertise in managing fiber networks using test equipment such as OTDRs, power meters, and fiber scopes. Merit has worked closely with optical and network equipment providers and will continue to work with these vendors.

Merit will work with fiber installation contractors to install the fiber along the proposed routes. [REDACTED]. have a signed Memorandum of Understanding in place with Merit Network to provide construction services, including engineering, for REACH-3MC II upon funding. Merit has worked with each of these organizations on fiber installations throughout Michigan, with the exception of [REDACTED]—a REACH-3MC II sub-recipient.

Merit has a Memorandum of Understanding with [REDACTED] provide project management and inside plant installation within community anchor institution locations. [REDACTED] has vast experience with inside plant requirements for schools, libraries, and governmental agencies.

Customer Base

The REACH-3MC II proposal is for a middle mile network. Although this proposal represents a public-private partnership, Merit Network will be solely responsible for the management of the proposed middle mile network. Merit has several existing customers in the proposed service area, and all would be classified as Community Anchor Institutions. Listed below is the breakdown of the current Merit Network customers by proposed corridors:

Northeastern Corridor – [REDACTED] Community Anchor Institutions



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Middle Corridor – ■ Community Anchor Institutions

Northern Corridor – ■ Community Anchor Institutions

In order to ensure the most benefit is received by the state, Merit has partnered with seven sub-recipients to provide last mile services in the proposed service area.

Each of the sub-recipient organizations have elected to purchase fiber strands within specific areas of the network in order to service last mile businesses and homes. Four of the sub-recipients have no current customers within the service area; they are ■■■■■■■■■■, ■■■■■ and ■■■■■■■■■■. The REACH-3MC II network will allow these organizations to expand as well as provide much needed competition in these service areas.

Sub recipients ■■■■■■■■■■ and ■■■■■■■■■■ all currently provide some last mile services in one or more of the proposal service areas.

Licenses, Regulatory Approvals and Agreements

REACH-3MC II will require construction permits from local municipalities with impacted facilities or permits for lots for hut installation, pole access permits, permits from the Michigan Department of Transportation (MDOT).

All of the above regulatory agreements have an expiration, and therefore cannot be obtained in advance. Much of the above permitting is covered under the Metropolitan Extension Telecommunication Rights-of-Way Act (METRO Act). Permits under the METRO Act cannot be obtained until final engineering is completed.

Any underground river crossing will require review by the Army Corp of Engineers or Michigan Department of Environmental Quality, which Merit is prepared to undergo.

Merit has agreements in place with ■■■■■■■■■■ and ■■■■■ to access utility poles. Poles are permitted after an engineering walk through on the selected route. MDOT permits will be required to build along Federal and State roadways, and must be applied for 6-8 weeks prior to construction. Railroad crossings are engineered on an individual case basis.



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The METRO Authority and Michigan Public Service Commission have issued a joint-request to all local officials in the REACH-3MC (first-round) service area to expedite permitting for the build-out of REACH-3MC or any other ARRA broadband project. The request is enclosed in this application. The same request will be applied to REACH-3MC II.

SPIN Number

- Merit Network Inc. - [REDACTED]
- ACD.net - [REDACTED]
- ACD Telecom, Inc. - [REDACTED]
- Great Lakes Comnet - [REDACTED]
- Lynx Network Group, LLC - [REDACTED]
- CCI Systems, Inc. - [REDACTED]
- Zayo Bandwidth, LLC - N/A
- Boardmand River Communications, LLC - N/A
- Peninsula Fiber Network - N/A

L. Environmental Questionnaire

Project Description

REACH-3MC II will install [REDACTED] 10' x 20' telecommunication huts in Michigan's Upper Peninsula, and [REDACTED] huts in Wisconsin. Each will be installed on privately owned, commercial zoned land along the fiber route. Clearing and excavation will allow for the construction of a cement building pad for hut installation and access drive to the adjoining road. The access drive will be gravel and built to local standards and requirements. Power utility poles will be installed to provide power to each hut.

Proposed construction activities include the hanging of fiber optic cable on existing utility poles and structures along the proposed fiber routes. The fiber traverses 29 counties in Michigan, 8 counties in Wisconsin and the southern portion of one county in Minnesota. Where best-practice standards advice, underground, horizontal boring or trenching will be used. For example, boring may be required under major highway intersections, railroad crossings or river crossings. In



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addition, local municipalities may require underground placement. Final determination is made at the time of permit application in each municipality.

Existing public rights-of-way will be used for all construction between end points. For anchor tenant and Central Office end point sites, private rights-of-way at those sites will be used to access the site.

Property Changes

Land clearing for each of the ■ telecommunication huts will take place on one acre lots (208'x208'). . An 80'x80' swath will be cleared. The hut will be set approximately 50' from the edge of the road. Typically the lot will already be cleared. Brush and small trees may need to be removed. Some excavation will be required to level each location to set the pad for the hut. Additional excavation will be required to build a 20' wide gravel driveway from the public right-of-way to the building location. All buildings will be located on private lands zoned for commercial use.

Buildings

The project will install 10'x 20' pre-fabricated huts at ■ locations. Installation will include leveling and excavation for a cement pad upon which the hut will stand and a 20' access gravel driveway. The huts will be used for telecommunication and network equipment. Included in each facility will be external access to connect to a power generator, 200A AC power service, 48VDC 50A rectifiers and 48V batteries.

Linear construction of fiber will be on or within public rights-of-way with precedented usage.

Wetlands

Due to the use of existing rights-of-way, no extraordinary measures are anticipated to accommodate for wetland impact by the linear fiber construction. The installation of huts will be close in the following instances, but no water or wetlands will be displaced:

Engadine, Mackinac County

Manistique, Schoolcraft County

Escanaba, Delta County



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Powers, Menominee County

Watersmeet; Wakefield, Gogebic County

Poplar, Douglas County (WI)

Marinette County in Marinette

In all cases the hut installation will accommodate wetland restrictions through careful selection of acre commercial lots.

Critical Habitats

No critical habitats will be impacted by REACH-3MC II fiber construction in public right-of-ways according to the US Fish and Wildlife Service. There exists species that will require special consideration in counties where huts will be installed. They are as follows:

Mackinac County: American Hart’s Tongue Fern, Dwarf Lake Iris, Houghton’s Goldenrod, Lakeside Daisy, Pitcher’s Thistle, Hine’s Emerald Dragonfly

Schoolcraft County: Houghton Goldenrod, Pitcher’s Thistle, Dwarf Lake Iris

Delta County: Pitcher’s Thistle, Dwarf Lake Iris

Menominee County: Dwarf Lake Iris, Hine’s Emerald Dragonfly

Douglas County (WI): Fassett’s Locoweed

An environmental assessment will provide guidance for hut placement within a given county to avoid conflict with any species listed. Using the US Fish and Wildlife Service’s web site, Merit has verified that the hut location will not impact Hine’s Emerald Dragonfly colonies. Merit will use alternate methods or routes to avoid impact on critical habitats throughout the whole project.

For complete list of critical habitats by county, see Upload 18.18 Supplemental Information, Section 5.

Floodplain



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REACH-3MC II will install telecommunication huts in the following counties in Michigan's Upper Peninsula: [REDACTED], and [REDACTED]. Huts will also be installed in the following counties in Wisconsin: [REDACTED], and [REDACTED]. Upon reviewing the suggested FEMA website, Merit has determined that no huts will be located within the 500-year floodplain. Examining a three mile radius from each municipality in which a hut is to be located finds no floodplains. There are no towers or other network-related structures as part of this project. FEMA Maps are not necessary.

Protected Land

Analysis of the SHPO reference resource determined that REACH-3MC II does pass within one mile of 135 historic sites, but will not impact the sites in any way. A list of the 135 sites is included in Upload 18.8 Supplemental Information Section 5.

REACH-3MC II fiber will traverse the Bad River Band of Lake Superior Chippewa Reservation in Northern Wisconsin. Merit has contacted a Bad River Tribal authority. There is a public right-of-way along the proposed fiber route. No local right-of-way permitting will be necessary.

REACH-3MC II proposes to build into the Sault Ste. Marie Tribe of Chippewa Indians Health Center in Manistique, Michigan, located on tribal land. The Sault Ste. Marie Tribe of Chippewa has provided a letter of support for our application. Bay Mills Tribal College will also benefit from REACH-3MC II fiber. The community college has also written a letter of support for our application.

Coastal Area

In all areas, Merit will follow all local and federal policies and regulations to prevent any impact of coastal zones by REACH-3MC II.

Michigan's coastal zone generally extends a minimum of 1,000 feet from ordinary high water mark. This project will cross the Mackinac Straits using existing Mackinac Bridge fiber infrastructure that extends well beyond the 1,000 feet from the ordinary high water mark. In some cases infrastructure will be constructed in public right-of-ways within the 1,000-foot high water mark. Though infrastructure will be constructed in coastal zones, no buildings will be constructed in Michigan's defined coastal zones and the project will therefore have no impact on them.



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Wisconsin coastal zones are located within counties along the Great Lakes. REACH-3MC II infrastructure will be within boundaries of the Wisconsin coastal zone and will follow all required processes to prevent environmental impact.

REACH-3MC II fiber will be constructed within existing public right-of-way in St. Louis County, Minnesota and will follow the Lake Superior Coastal Program Final Environmental Impact Statement precise guidelines for installing fiber optic cable in the coastal zone.

Brownfield

We have identified brownfields within 5 miles of our fiber optic construction in the following counties:

- Gogebic
- Ontonagon
- Houghton
- Iron MI
- Dickinson
- Menominee
- Delta
- Schoolcraft
- Mackinac
- Cheboygan
- Otsego
- Presque Isle
- Montmorency
- Alpena
- Alcona
- Iosco
- Crawford
- Ogemaw
- Roscommon
- Wexford
- Osceola



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Mecosta
Montcalm
Kalkaska
Kent
Iron WI
Bayfield
Douglas
Marinette
Oconto
Brown
Ashland
St. Louis

None are close enough to have an impact on the fiber construction. The project will not be installing telecommunication huts on or near brownfield locations. Please reference the associated maps, which are located in the supplemental upload section of this application (Supplemental Info._Section 5_REACH-3MC II Environmental Maps 1 thru 6).



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Uploads

The following pages contain the following uploads provided by the applicant:

Upload Name	File Name	Uploaded By	Uploaded Date
Service Offerings and Competitor Data	UPLOAD_18.1_Service Offerings and Competitor Data_2010-03-19 04-59PM.xls	Welch, Donald	03/21/2010
Network Diagram	UPLOAD 18.2 Network Diagram 100323 614.pdf	Welch, Donald	03/23/2010
Build Out Timeline	UPLOAD_18.3_CCI Build-Out Timeline 10 03 23 8-45 am.pdf	Welch, Donald	03/23/2010
List of Community Anchors and Points of Interest	UPLOAD_18 4_List of Community Anchor Institutions and Points of Interest-100325_1816.xlsx	Welch, Donald	03/25/2010
Management Team Resumes and Organization Chart	UPLOAD_18.5 Management Team Resumes and Organizational Chart_100323.pdf	Welch, Donald	03/23/2010
Government and Key Partnerships	UPLOAD_18.6 Government & Key Partnerships2.pdf	Welch, Donald	03/25/2010
Historical Financial Statements	UPLOAD_18.7_Historical Financial	Welch, Donald	03/24/2010



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	Statements_100324.pdf		
Budget Narrative	UPLOAD_18.8_Budget Narrative.pdf	Welch, Donald	03/26/2010
Detailed Budget	UPLOAD_18.9 Detailed Project Budget Final.xlsx	Welch, Donald	03/23/2010
Pro-forma Forecast	UPLOAD_18.10_Round 2 Easy Grant 4658 Final 8 Yr Pro Forma 1.1.xlsx	Welch, Donald	03/26/2010
Subscriber Estimates	UPLOAD_18.11_Subscriber Estimates-100326-12-20PM.xlsx	Welch, Donald	03/26/2010
Dashboard Metrics	UPLOAD_18.12_Dashboard Metrics-100326-12-30PM.docx.pdf	Welch, Donald	03/26/2010
Service Area Data	UPLOAD_18.13 Service Area Data.xlsx	Welch, Donald	03/26/2010
Network Maps	Upload_18.15_Network Maps.pdf	Welch, Donald	03/25/2010
BTOP Certifications	UPLOAD_18.16_BTOP Certifications.pdf	Welch, Donald	03/22/2010
SF-424 C and D	UPLOAD_18.17_SF 424	Welch, Donald	03/23/2010



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	C&D.pdf		
Supplemental Information	Supplemental Info._Section 5_REACH-3MC II Environmental Maps- 1of6.pdf	Welch, Donald	03/25/2010
Supplemental Information	Supplemental Info._Section 5_REACH-3MC II Environmental Maps- 6of6.pdf	Welch, Donald	03/25/2010
Supplemental Information	Supplemental Info._Section 5_REACH-3MC II Environmental Maps- 3of6.pdf	Welch, Donald	03/24/2010
Supplemental Information	Supplemental Info._Section 5_REACH-3MC II Environmental Maps- 4of6.pdf	Welch, Donald	03/24/2010
Supplemental Information	Supplemental Info._Section 5_REACH-3MC II Environmental Maps- 5of6.pdf	Welch, Donald	03/24/2010
Supplemental Information	Supplemental Info._Section 5_Historic Sites by County.pdf	Welch, Donald	03/24/2010
Supplemental Information	Supplemental Info._Section 5_Critical Habitats.pdf	Welch, Donald	03/24/2010



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Supplemental Information	Supplemental Info._Section 3_ FCC High-Speed Services for Internet Access.pdf	Welch, Donald	03/24/2010
Supplemental Information	Supplemental Info._Section 4_Methodology of Service Area Details.pdf	Welch, Donald	03/24/2010
Supplemental Information	Supplemental Info._Section 6_List of Letters.pdf	Welch, Donald	03/24/2010
Supplemental Information	Supplemental Info._Section 6_Letters of Support.pdf	Welch, Donald	03/24/2010
Supplemental Information	Supplemental Info._Section 6_Letters of Support-CAI-Leadership-Organizations.pdf	Welch, Donald	03/24/2010
Supplemental Information	Supplemental Info._Section 6_Letters of Commitment-CAI.pdf	Welch, Donald	03/24/2010
Supplemental Information	Supplemental Info._Section 6_Letters of Commitment-Internet-Service-Providers.pdf	Welch, Donald	03/24/2010
Supplemental Information	Supplemental Info._Section 2_Anchor-Institutions and	Welch, Donald	03/25/2010



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	Project Detail.pdf		
Supplemental Information	Supplemental Info._Section 7_Loan Schedule.pdf	Welch, Donald	03/26/2010
Supplemental Information	Supplemental Info._Section 0_Table of Contents.pdf	Welch, Donald	03/26/2010
Supplemental Information	Supplemental Info._Section 5_REACH-3MC II Environmental Maps-2of6.pdf	Welch, Donald	03/26/2010
Supplemental Information	Supplemental Info._Section 7_Round 2 Pro Forma Assumptions Supplemental.pdf	Welch, Donald	03/26/2010
Supplemental Information	Supplemental Info._Section 7_Depreciation Schedule.pdf	Welch, Donald	03/26/2010
Supplemental Information	Supplemental Info._Section 1_REACH-3MC II Core Network Map.pdf	Welch, Donald	03/26/2010
Supplemental Information	Supplemental Info._Section 1_REACH-3M Community College Maps.pdf	Welch, Donald	03/26/2010
Supplemental Information	Supplemental Info._Section 1_Status of Service Area.pdf	Welch, Donald	03/26/2010



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Supplemental Information	Supplemental Info._Section 1_Michigan E-911 & PSAPs.pdf	Welch, Donald	03/26/2010
Supplemental Information	Supplemental Info._Section 1_Economically Distressed Areas.pdf	Welch, Donald	03/26/2010