

**Applicant Information**

Company Name	Yadkin Valley TMC
Address	1421 Courtney Huntsville Road Yadkinville, NC 27055
Website	www.zirrus.com
Federal Tax ID	[REDACTED]
DUNS #	044512457
System Award Management (SAM.Gov) ID	HKNZHXNBK6P9

Authorized Representative		Authorized Representative (Alternative)	
Full Name	Seth Dunlap	Full Name	Brad Worthen
Contact Title	VP, Finance	Contact Title	VP, Operations
Phone Number	336 463 5003	Phone Number	336 463 5032
E Mail	seth.dunlap@yadtel.com	E Mail	brad.worthen@yadtel.com

Grant Administrator & Company Name(if applicable):

Full Name	
Contact Title	
Telephone	
E Mail	
Website	
Federal Tax ID	
Address	

**Project Information**

Project Title	YVTMC Iredell GREAT Grant FTTH Project		
Project Cost	\$6,698,387.45		
County	Iredell	Tier #	003
Estimated # of Households with improved access			1,730
Estimated # of businesses with improved access			192
Base Speed Minimum Download/Upload			Greater than 100:100 Mbp

**Project Description (provide a brief summary of the project)**

Yadkin Valley Telephone Membership Corporation's (YVTMC) proposed GREAT Grant Iredell County FTTH project will complete a 10.0 Gbps Symmetrical Passive Optical Network (PON) consisting of 115 miles of 98 percent buried Fiber To The Home (FTTH) outside plant in partnership with Iredell County, North Carolina. The purpose of this project is to facilitate economic development through the deployment of broadband in unserved areas of Iredell County. The proposed project, when completed, will deliver critical broadband service with a base speed of 125Mbps symmetrical and up to a maximum speed of 6.0Gbps symmetrical to all prospective broadband recipients in the proposed deployment areas via a 100% fiber network. Each of the nine (9) proposed deployment areas are located within or proximal to YVTMC's Incumbent Local Exchange Carrier (ILEC) serving territory which will allow for rapid deployment of the proposed fiber network. Although Iredell County is classified as Tier Three, YVTMC assert that the Proposed Deployment Areas are composed of rural census tracts as defined in N.C.G.S. § 143B 472.127(a)(2). YVTMC selected these proposed deployment areas in Iredell County because they maximize the benefit of grant dollars available by providing broadband internet service to the highest number of unserved residents and businesses. The proposed YVTMC Iredell GREAT Grant project will require construction of 115 route miles of fiber to provide reliable, high speed broadband service to 1,922 total point addresses including 1,730 residential point addresses and 192 businesses and community anchor institutions. YVTMC's proposed GREAT Grant project that is associated with this application is similar in scope to projects the company has successfully completed in the past and has a total project cost of \$6,698,387.45. YVTMC has formed a partnership with Iredell County, North Carolina to fund the construction of broadband infrastructure in the proposed deployment areas of the County. Iredell County will contribute up to \$2,107,290 in American Rescue Plan Act (of 2021) (ARPA) funding to support YVTMC's deployment of broadband infrastructure. A Resolution passed and adopted by the Iredell County Board of Commissioners on March 15th, 2022 has been uploaded as a part of this GREAT Grant application. YVTMC will also partner with Energy United (EU), the second largest supplier of residential electricity in North Carolina. EU has committed to forming a potential partnership with YVTMC if any or all of its GREAT Grant applications are awarded. The partnership with EU will allow YVTMC to use its existing infrastructure to assure a rapid and cost effective deployment of broadband services. EU's Letter of Intent to Partner with YVTMC has been uploaded as a part of this GREAT Grant application.

Has the applicant entered into a partnership for this project as defined in S.L. 2019 230? Yes

Please Identify Partner  
Iredell County, North Carolina

**Checklist Details**

1) Statement of Qualifications (Please provide a detailed description of qualifications and experience with the deployment of broadband):

Yadkin Valley Telephone Membership Corporation (YVTMC) has been providing telecommunications services in northwestern North Carolina since 1950. It has a very long and proven Federal loan and grant program history. YVTMC has the distinction of being the first approved Rural Electrification Administration (REA) telephone borrower in North Carolina to receive loan funds. YVTMC started its initial rollout of the more advanced bandwidth customer services in the mid to late 1990s with the introduction of copper pair based ~ 56 Kbps dial up and ~ 1.5 Mbps Digital Subscriber Line (DSL) internet services into its network. As outlined below, these YVTMC services have steadily transitioned incrementally over the past three (3) decades to the much higher bandwidth fiber optic Passive Optical Network (PON) based services.

In 2006, YVTMC acted on a vision to initiate a massive Fiber To The Home (FTTH) overbuild project to replace its aging copper outside plant. By July of 2008, the first customers were being served with Gigabit Passive Optical Network (GPON) FTTH technologies making available a much more reliable and higher quality broadband experience that included up to 12.0 Mbps internet access. Around this time YVTMC also released fiber optic based Internet Protocol Television (IPTV) services to its subscribers with both High Definition (HD) and Digital Video Recorder (DVR) service offerings.

In 2008, YVTMC became a certified member of the FTTH Council. The FTTH Council was established as a non profit association consisting of companies and organizations that deliver video, internet, voice and/or other special services over high capacity, high bandwidth, next generation direct fiber optic connections. At the time, the FTTH Council was working to expand an already cohesive group in which to share knowledge and build industry consensus on key FTTH issues. The FTTH Council's continued goal is to educate both the public and government officials about FTTH solutions and to promote and accelerate the deployment of FTTH technologies in order to enhance the quality of life of its communities

As it relates to historical projects more directly associated with this GREAT Grant application, in 2010, YVTMC applied for and received a nearly \$22 million 50 percent loan 50 percent grant through the American Recovery and Reinvestment Act's United States Dept. of Agriculture (USDA) Rural Utilities Service (RUS) Broadband Initiatives Program (BIP). The project was initiated in 2011 and by all accounts was successfully completed under budget and ahead of schedule. YVTMC's portion of the BIP required constructing approximately 470 miles of mainline fiber optic cable past over 5,100 underserved households, 316 businesses, and 54 anchor institutions.

Between 2016 and 2018, YVTMC made \$3.6 million of investments in a new Cisco Dense Wavelength Division Multiplexing (DWDM) core transport and Adtran transport and access network. With the completion of these major network upgrades, every YVTMC subscriber that was served by FTTH had the much improved option of choosing a broadband package of speeds up to 2.0 Gbps downstream and 2.0 Gbps upstream. These network capabilities garnered YVTMC nationwide acclaim. In February of 2019, NTCA The Rural Broadband Association (NTCA) announced the company had been recognized for demonstrating exceptional leadership within its serving territory through the delivery of Gbps class broadband service and certified YVTMC as a Gig Capable provider.

In 2020, not long after the USDA RUS ReConnect Program was created as part of the Consolidated Appropriations Act, YVTMC applied for and was awarded an approximately \$2.3 million grant through the RUS ReConnect Round Two Program. In addition to the grant, YVTMC's Board of Directors authorized an additional expenditure of almost \$800K in matching funds for a total project cost of nearly \$3.1 million. The associated active project is entitled, "Yadkin Valley TMC ReConnect FTTH" with the 5 year construction plan that started in late 2020. YVTMC's RUS ReConnect Round Two project requires building approximately 71 miles of mainline fiber optic cable passing 618 residential and business premises.

Later in 2020, YVTMC and the local Davie County government and school system initiated a joint US Dept. of Commerce Economic Development Administration (EDA) grant application and project that was created through the Coronavirus Aid, Relief, and Economic Security (CARES) Act. The total project cost is ~ \$2.4 million with the grant portion and matching funds valued at ~ \$1.9 million and ~ \$500K, respectively. The active project is entitled, "Driving Economic Development in Davie County, NC". The project's mission is to allow YVTMC to construct approximately 154 miles of mainline cable to complete its remaining FTTH buildout in Davie Co. to mitigate the impact of the Coronavirus and allow 3,405 premises, that includes businesses, schools and homes, that did not have access to reliable, high speed internet to connect to YVTMC's network. YVTMC received notice of the successful award in April of 2021 with construction just recently getting underway.

Late in 2021, YVTMC submitted an additional grant application valued at \$2.8 million with a total project cost of approximately \$3.4 million. The application was submitted through the US Dept. of Commerce Economic Development Administration (EDA) as a part of the 2021 American Rescue Plan Act. YVTMC's associated project is entitled, "Digital Equity Through A Resilient Fiber Network For Yadkin County". The project's goal is to expand YVTMC's FTTH network into areas of Boonville and Yadkinville located in Yadkin County, NC. Support for introducing YVTMC services into these communities is strong as of the 112 associated businesses, 50 communicated with YVTMC to submit letters of support. The application is currently under review, but if approved, will allow YVTMC to construct approximately 53 miles of mainline fiber optic cable and provide advanced FTTH services to an additional 1,392 homes and businesses.

The current consolidated service territory of YVTMC and its subsidiaries encompasses more than seven hundred (700) square miles in Davie, Yadkin, and parts of Alexander, Forsyth, Iredell, Rowan, and Wilkes Counties in North Carolina. The current total structure count across the serving territory is 45,551. Since 2006, YVTMC has conservatively invested more than \$78 million dollars in its FTTH network infrastructure. This figure includes mainline FTTH construction, service drops, customer premise equipment and access equipment. Currently, 31,260 structures, or nearly 70 percent of those in YVTMC's service territory have FTTH services available.

YVTMC's proposed GREAT Grant project that is associated with this application is similar in scope to projects the company has successfully completed in the past. The \$6.6 million project will complete a 10.0 Gbps Symmetrical (XGS) Passive Optical Network (PON) consisting of 115 miles of 98 percent buried Fiber To The Home (FTTH) outside plant. The project will facilitate economic development through the deployment of reliable, high speed broadband to 1,922 unserved residences, businesses and community anchor institutions in Iredell County, North Carolina.

YVTMC's management team is highly experienced in fiber optic network design, project management, construction, system maintenance and overall advanced broadband service business operations. The eight (8) YVTMC leaders most closely associated with the proposed project have over 100 years of combined experience in the telecommunications industry.

YVTMC has selected dynamic leaders with diverse backgrounds in order to ensure ongoing business success. YVTMC recognizes that good leaders are required in order to meet future business challenges and execute strategic initiatives associated with technological changes, market demands, and increasing competition.

YVTMC's most senior management team is led by its Chief Executive Officer (CEO), Ken Mills. Before moving into the CEO position, Ken was YVTMC's Chief Operations Officer (COO) for approximately two (2) years. Ken is a Certified Public Accountant (CPA) and a member of the American Institute of Certified Public Accountants and North Carolina Association of Certified Public Accountants. YVTMC's CEO strategically directs the company in executing its vision and mission to use world class technology to provide state of the art services for the enrichment of the community and to be the company that all consumers in the Yadkin Valley Region of North Carolina contact for all their technology needs. Ken has over 30 years of professional and executive leadership experience and is assisted by three Vice Presidents: Seth Dunlap, Vice President, Finance, Brad Worthen, Vice President, Operations and Janet Culpepper, Vice President, Human Resources & Public Relations. Together, these three Vice Presidents have over 55 years of professional experience. In

**Checklist Details**

accordance with the company’s vision and mission, this core leadership team analyzes, develops and implements business plans to maintain operations and drive revenue growth. All of the departments and functionally distinct business groups that make up YVTMC’s business structure fall directly under the CEO or under the management of these three Vice Presidents. In addition to the three (3) Vice Presidents, the Marketing Department also reports directly to the CEO.

Seth Dunlap, Vice President of Finance, has seven (7) management employees that report directly to him. Seth joined the company in 2019 as a North Carolina Certified Public Accountant (CPA) (License No. 38692) and has over ten (10) years of corporate financial management experience. Seth leads cross functional activities to drive positive company Earnings Before Interest, Tax, Depreciation & Amortization (EBITA) and will ensure proper financial management and oversight of the proposed project. The seven (7) management employees that report to him oversee the Information Technology (IT), Finance, Accounting, Network Security, Telecommunications Engineering, Central Office, Regulatory, Vehicle Fleet, Warehouse and Building & Grounds functions of the company. These seven (7) managers include, Ron Swartz, Director of Connected Technologies, Alexander Smith, Manager of FP&A, Butch Mabry, Risk & Compliance Manager, Allen Barker, Director of Engineering, Catherine Chambliss, Accounting Manager, Ryan Gardner, Director of IT and Zane Riddle, Director of Support Services.

YVTMC’s Director of Engineering, Allen Barker, has been with the company since 2014 and has been an instrumental leader in upgrading YVTMC’s state of the art network. He, along with Jeremy Raymond, Telecommunications Engineering Manager, easily have over a combined 30 years of telecommunications experience and will oversee all activities associated with the project’s DWDM core transport, local transport and access equipment additions. Zane Riddle, Director of Support Services, oversees YVTMC’s Vehicle Fleet, Warehouse and Buildings & Grounds business functions. He will manage the project’s commercial power and overall telecommunications equipment housing requirements associated with buildings. Zane is highly accredited and has over 18 years of directly related professional experience. Butch Mabry, Risk & Compliance Manager, has 18 years of experience in the telecommunication industry and will provide regulatory and contract administration oversight to help ensure YVTMC maintains compliance with the terms of the project agreement. Butch is highly experienced and has been directly involved with very similar projects that started with YVTMC’s 2010 ~ \$22 million USDA BIP award. Butch has been intimately involved with all YVTMC’s subsequent loan/grant projects and has a history of expert and successful leadership. Janet Culpepper, Vice President of Human Resources & Public Relations, has two (2) employees that report directly to her. She joined YVTMC in 2019 to replace a retiring long term senior manager. It has been a very smooth transition as Janet brings over 30 years of professional experience in Human Resources and Public Relations. Janet is a key member of the Executive Leadership Team and is involved in all facets of the company that involve the organization’s employee structure and relations. She works very closely with the CEO and is instrumental in working with all YVTMC leaders in regard to long range company planning and professional development.

Brad Worthen, Vice President of Operations, has four (4) management employees that report directly to him. Along with Brad, this group of employees have a combined total of 42 years of telecommunications industry related experience. This leadership group oversees the Outside Plant Engineering, Outside Plant Construction, Installation & Repair, Business Sales, Cable Maintenance, Repair Service, Network Monitoring, Customer & Retail Solutions and Retail Store Management business functions of the company. These four (4) managers include, Sharon Hamilton, Customer Solutions Manager, Patrick Gray, Operations Manager, Mark Hurley, Operations Manager, and Chad Cartwright, Director of Sales Operations.

YVTMC’s Operations Dept. Director and Manager Group includes some of the company’s most experienced and tenured employees. Among these employees is YVTMC’s Operations Manager, Patrick Gray. Patrick has been with the company since 1997. He and his team of twenty (20) employees will oversee all project activities related to the completion of FTTH OSP engineering and construction. Patrick has been in his role managing YVTMC’s outside engineering since 2004. He has been directly involved with many very similar projects that started with YVTMC’s 2010 ~ \$22 million USDA BIP award. Patrick provides very strong leadership and has been closely involved with all of YVTMC’s subsequent loan/grant projects. Also among the group of strong Operations Dept. leaders is Mark Hurley, Operations Manager. Mark has been with the company since 2013 and also has been involved in executing several very similar projects. He and his team of twenty three (23) employees are very experienced in all aspects of FTTH cable maintenance, business systems and individual service installations and repair.

Reporting to Chad Cartwright, Director of Sales Operations, is Chris Howley, Business Acquisition Manager, Robert Helms, Residential Acquisition Manger and Sandy Bates, Director of Retail & Customer Care. Sandy oversees YVTMC’s three (3) retail store locations and, by herself, brings over 22 years of customer service experience in the telecommunications industry.

In total, as of the time of this application, YVTMC’s organizational structure includes 132 full time, very capable, knowledgeable and skilled employees. YVTMC hiring guidelines specify professional and/or technical certifications dependent upon job duties. Examples include Certified Public Accountants (CPAs), Information Technology (IT) based certifications, such as those acquired through Cisco, and state recognized licenses, such as those required to support security and land and buildings operations. YVTMC also maintains relationships with a variety of contractors who provide after hours network monitoring, consultant engineering services, legal and regulatory oversight, financial consultant services, security monitoring, billing and Operations Support Systems (OSS) and mainline outside plant and drop construction services.

YVTMC respectfully requests it be considered a prime candidate to further participate in the GREAT Grant Program. If its application is approved, YVTMC will leverage its over 70 years of proven history in the telecommunications industry to deploy and operate the proposed network at its highest possibly efficiency.

**2) Assessment of the current level of broadband access in the proposed deployment area supporting data may be uploaded if applicable:**

Yadkin Valley Telephone Membership Corporation’s Iredell County GREAT Grant FTTH Project consists of nine (9) non contiguous Proposed Deployment Areas (PDAs) located both within and proximal to YVTMC’s Incumbent Local Exchange Carrier (ILEC) serving territory. This is an important fact as the process of assessing the current level of broadband access differs slightly based on location of the PDA. For PDAs of both types, both inside and proximal to YVTMC’s ILEC serving territory, assessment of the current level of broadband access started with the GREAT Grant Online Mapping Tool. YVTMC created boundaries for each of its Iredell County PDAs by following the boundaries of the red polygons in the GREAT Grant Online Mapping Tool. These red polygons represent the census blocks in which the FCC Form 477 data (December 2020 Release) report service that is less than 25Mbps download and 3Mbps upload. One the PDA polygons were created, YVTMC exported the AddressNC v1 location data in .csv format which forms the basis for locations passed. Those .csv files are uploaded as a part of this GREAT Grant application. Only those census blocks appearing on the layer entitled FCC Less than 25mb/s Download and 3 mb/s Upload have been included in the PDAs. Any Rural Digital Opportunity Fund (RDOF) census blocks were also avoided. For those proposed deployment areas within the ILEC serving territory, YVTMC provides service via Digital Subscriber Line (DSL) on copper plant. This fact supports YVTMC’s assertion that internet transmission speeds available to residences, businesses, and community anchor institutions in these areas fall below the 25Mbps download and 3Mbps upload required to render these locations ineligible. To further validate each of the proposed deployment areas as unserved and lacking access to 25Mbps download and 3Mbps upload, YVTMC deployed engineers experienced in telecommunications outside plant facilities as “boots on the ground” to methodically travel each of the roads in the PDAs. They used visual and sometime physical techniques to verify what type(s) of telecommunications plant where in place if any and in particular, to ensure no Hybrid Fiber Coax (HFC) outside plant facilities were located in the PDAs which would indicate the availability of telecommunications service from Spectrum.

**Checklist Details**

Assessment of the current level of broadband access in the PDAs falling outside of YVTMC’s traditional ILEC serving territory is a bit more difficult but not impossible. Again, YVTMC started the assessment with the GREAT Grant Online Mapping Tool building proposed deployment areas based on census blocks shown on the FCC Less than 25mb/s Download and 3 mb/s Upload layer and again, avoiding any RDOF census blocks. YVTMC also utilized Federal Communications Commission (FCC) Form 477 broadband deployment data, the National Telecommunications and Information Administration’s Broadband Database and the BroadbandNow website to determine the level of service being provided. That analysis reveals that AT&T is the incumbent broadband provider whose service consists of Digital Subscriber Line (DSL) on long loop copper plant. YVTMC asserts that this service also does not meet the threshold of 25 Mbps download and 3 Mbps upload required to render these census blocks ineligible for GREAT Grant funding. Often the best indicator of the level of broadband service available in any given area comes from the residents who live there. After receiving numerous requests from residents, businesses, and community leaders throughout northern Iredell County requesting that YVTMC expand its fiber optic services because adequate high speed internet was lacking, YVTMC launched a website, [www.iredellfiberineter.com](http://www.iredellfiberineter.com), for the purposes of identifying unserved areas in need of higher speed broadband deployment. Potential broadband recipients were asked to respond affirmatively to the survey if they were interested in subscribing to broadband via fiber when it was made available from YVTMC. Survey responses revealed clusters of residential and business addresses within the Iredell County proposed deployment areas where broadband availability was said to be non-existent or of very poor quality. Figure 1 below plots the affirmative respondents to YVTMC’s interest survey. The nine (9) Iredell County Proposed Deployment Areas are indicated by the purple polygons.

Figure 1 Affirmative Respondents to YVTMC’s Fiber Interest Survey NOTE: THIS DOCUMENT IS AN ATTACHMENT APPLICATION ID 1000013491.

3)Description of Proposed Services, Advertised Speeds, and Pricing Structure for proposed broadband recipients in the eligible project area:

Yadkin Valley Telephone Membership Corporation (YVTMC) will offer reliable, high speed broadband internet service delivered over a 100% Fiber To The Home (FTTH) network to all premises in the Iredell County NC GREAT Grant Proposed Deployment Areas (PDAs) at affordable rates. Internet packages available to residential customers will feature speeds beginning at 125 Mbps downstream and 125 Mbps upstream up to 6.0 Gbps downstream and 6.0 Gbps upstream which will not be throttled nor contain data caps. The monthly recurring charges for each package per will be based on the speed tier. Residential customers will have a choice of five (5) speed tiers each featuring symmetrical downstream and upstream speeds. The speed tiers and monthly recurring charges are as follows:

Speed Tier	Monthly Recurring Charge
125Mbps/125Mbps	\$39.99
1.0Gbps/1.0Gbps	\$69.99
2.0Gbps/2.0Gbps	\$99.99
3.0Gbps/3.0Gbps	\$129.99
6.0Gbps/6.0Gbps	\$299.99

The 125 Mbps symmetrical package is being offered as a cost effective option for those potential broadband recipients who qualify for the Federal Communications Commission’s Lifeline and Affordable Connectivity Program. YVTMC has participated in the Federal Communication Commission’s Lifeline Program for many years. The Lifeline Program provides eligible subscribers a monthly discount on their landline telephone or broadband service to make those services more affordable. YVTMC has also participated in the Emergency Broadband Benefit (EBB) Program since its inception and has transitioned all EBB subscribers over to the Affordable Connectivity Program (ACP). The ACP program provides eligible subscribers a monthly discount on their broadband service to make that service more affordable. YVTMC commits to offering eligible potential broadband recipients both the Lifeline and ACP program discounts.

In 2020 YVTMC started offering its FTTH internet customers the option of purchasing its comprehensive Smart Home WiFi service. This service would be available to new customers associated with the proposed project and includes home network engineering to ensure adequate wireless and mesh coverage, wiring, equipment installation and the remotely managed WiFi service. WiFi6 is YVTMC’s most current service offering that is based on the Institute of Electrical and Electronics Engineers (IEEE) 802.11ax standard. This latest standard allows for the use of dual and tri band home routers operating at 2.4 GHz and up to two (2) 5.0 GHz bands. YVTMC recognizes that a good managed WiFi solution can allow for up to 4 times the network efficiency and 4 times the traffic throughput in congested home environments and up to 40 percent higher peak data rates. YVTMC’s WiFi internet service support package carries with it 24/7 support services at no additional charge. YVTMC welcomes multi device and high usage internet customers to its network and those that require low latency. YVTMC promotes and strongly desires to be the network of choice for “gamers”.

YVTMC offers basic local telephone service for residential and business customers. There are no commitments required for local telephone service. Long Distance (LD) plans include an Easy Talk plan at a per minute rate for domestic calls and an Unlimited plan which includes the continental United States and Canada. YVTMC’s long list of custom calling features, such as Caller ID, may be purchased individually or at a discounted rate with a bundled service plan. YVTMC will offer residential and business security plans within the PDAs. The residential security plan includes monthly monitoring and can be bundled with internet at a reduced price point. The business security plan also includes monthly monitoring but cannot be bundled at a discounted price. YVTMC will offer Personal Alert Service (PALS) Elder Security at a reduced price when combined with local phone service. A variety of home security equipment will be available including cameras, video doorbells, thermostats, smoke detectors, motion sensors and glass break detectors. Voice assistant devices will also be offered for purchase.

Internet packages available to business customers will feature speeds beginning at 250 Mbps downstream and 250 Mbps upstream up to 940 Mbps downstream and 940 Mbps upstream which will not be throttled nor contain data caps. The monthly recurring charges for each package per will be based on the speed tier. Business customers will have a choice of three (3) speed tiers each featuring symmetrical downstream and upstream speeds. The speed tiers and monthly recurring charges are as follows:

Speed Tier	Monthly Recurring Charge
250/250Mbps	\$69.99
500/500Mbps	\$89.99
940/940Mbps	\$99.99

YVTMC will also offer managed service options which include IT Managed Services, firewall protection, managed networks, and data backup/storage. IT Managed Services teams provides expertise in network and systems administration, Cybersecurity, and traditional Service Desk with a focus on project management and IT Operations. The teams are built to support the SMB space targeting companies from 10-250 employees and tend to be the whole IT department for smaller sized clients and provide singular Managed Services for larger sized clients. Managed Services are defined as remote only service offerings that are subscription based for clients that are under contract. Professional Services can be remote or onsite and consist of incident (break/fix),

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project, or task based work.

From workstation computers including Microsoft 365, to server management, and data backup, IT managed services combine on premises and Cloud solutions that emphasize security and data protection. The Cloud PBX business phone system includes tollfree numbers and enterprise class features, without the cost of an in house system. All ZTS Managed Services come with IT Service Desk support. Protecting the client network and data is a critical component of the service. Security engineers have the cybersecurity expertise to minimize attack surface and stay one step ahead of the bad actors that pose a threat to the client network and valuable data. Some of the ZTS Managed Services can be offered as either "As a Service" or "Managed" and those will be indicated in our expanded proposal. "As a Service" options include hardware, turning a typical CAPEX expense into an OPEX expense. The hardware is leased from Zirrus and includes management. "Managed" options provide a higher upfront cost to purchase the hardware which leads to lower monthly charges to only cover management. Zirrus adds additional value by passing through vendor partnership discounts to lower the cost for equipment. All services are designed to deliver consistent, high quality results while driving down costs and allowing the client to focus on their business.

**4) Description of Adoption Plan:**

Yadkin Valley Telephone Membership Corporation (dba, Zirrus) understands the importance of bringing the benefits of high speed Internet to unserved and underserved rural communities. Our Fiber Optic Broadband Internet already reaches 78% of the structures within our 600 square mile core trade area in rural North Carolina. Our mission is to achieve 100% penetration of this geography within five years while expanding coverage to adjacent areas to bring Broadband Internet to the deserving residents of rural North Carolina. YVTMC is applying for a GREAT Grant because your financial support in partnership with our technological expertise will enable us to make our vision a reality. We can't do it without you!

YVTMC has a proven track record of bringing the fastest and most reliable Internet service to rural North Carolina. For example, the YVTMC team effectively migrated customers to high speed Internet as part of its 2010 RUS BIP Grant project. We achieved a high take rate among residents in this previously unserved community following the completion of more than 470 route miles of Fiber installation. Key to this success was YVTMC's comprehensive integrated marketing plan which resulted in widespread adoption. If awarded a Great Grant, YVTMC will deploy an even more robust marketing campaign consisting of community education forums, a strong website presence, multi media saturation advertising, an influencer campaign plus sign up incentives, and help applying for Affordable Connectivity Program (ACP) funding for those who are otherwise unable to afford this empowering and enabling service. Details:

**Community Education Forums**

- Host local community education forums during convenient evening hours to teach people about the benefits of Broadband such as participating in remote training and education programs, conducting virtual business meetings and sales calls, accessing more channels for less money through streaming, and enjoying video calls with distant friends and family to name just a few.
- Teach people what to expect in terms of available speeds and pricing, the importance of reliable Wi Fi service inside the home, and the construction process and timelines. These forums are free, an incentive is offered to encourage attendance, and we will be sure to leave plenty of time to answer questions.

**Website**

- Provide a website <https://www.YVTMC.com> that will function as a focal point to educate customers about the benefits of Broadband.
- Include a mapping tool displaying the service area along with the ability to look up individual addresses to learn about the status of their access to YVTMC high speed Internet.
- Build a custom landing page dedicated to the GREAT Grant to help people understand and appreciate the significance of North Carolina's investment in their community.

**Multi Media Advertising:**

- **Direct Mail** Create a direct mail campaign to introduce Broadband in the service area. These mailers will communicate the benefits of our Fiber Optic Internet and describe additional YVTMC services that will be enabled by high speed Internet including Home Automation and Home Security systems.
- **Newspaper Advertising** Advertise in local newspapers to create awareness of, and interest in, the vast potential of Fiber Optic Internet. Detailed information will be provided on the various packages to help people select the best option for their needs.
- **Digital Marketing** Employ a digital marketing program including social media, geo fencing, texting, emails, and search engine optimization to stimulate demand for high speed Internet.
- **Outdoor Advertising** Place billboards on streets and highways on the path to and within the Grant area to promote the availability of YVTMC Fiber Optic Internet service. Research shows 75% of people who drive, ride, or walk by billboards actively view these messages making outdoor a powerful reminder medium that effectively reinforces the other elements of our marketing campaign.
- **Door Hangers and Lawn Signs** Put door hangers on houses during construction, and install lawn signs along construction paths, streets, and highways to communicate the availability of YVTMC Broadband.
- **Influencer Campaign and Incentives** Enlist key influencers and opinion leaders in the YVTMC Ambassador Program. Ambassadors will receive account credits and other incentives for recruiting new Broadband customers. This has proven to be a highly effective tool for helping YVTMC gain rapid adoption of our Internet service in other grant program areas. In addition, the first month is free for all new YVTMC Fiber Optic Internet customers.
- **Affordable Connectivity Program** Help navigate the ACP application process for those who can't afford high speed Internet service. Among this group are some of the people who have the most to gain from the educational opportunities made possible by fast and reliable Internet service, so we are committed to do everything we can to prevent cost from being a barrier.

**By checking the appropriate box, you will upload the following documents:**

5) Description of Project Area, Identification of locations to be served, relevant maps and mapping files:	<input checked="" type="checkbox"/>
6) If submitting other data sources, including field data, to identify unserved locations (households and businesses) outside of the fully unserved census blocks provided on the NC One Map, please provide a narrative describing your methodology for determining the proposed funding area is unserved and eligible for funding in this round.	<input checked="" type="checkbox"/>
7) Excel Spreadsheet (NO PDF) that itemizes the eligible activities and cost estimates. Please provide an explanation of how you estimated the costs:	<input checked="" type="checkbox"/>
8) Please provide your methodology or explanation of how you calculated cost per location (Households/Businesses):	<input checked="" type="checkbox"/>
9) Proof of Financial Solvency	<input checked="" type="checkbox"/>

**By checking the appropriate box, you will upload the following documents:**

10) Technical Report	<input checked="" type="checkbox"/>
11) Evidence of Support for the Project (i.e. Letter of Support)	<input checked="" type="checkbox"/>
12) Evidence or proof a partnership based on the definition in the guidance document and the authorizing legislation	<input checked="" type="checkbox"/>

**SCORING**

*The GREAT Program is a competitive grant program. Applications shall be scored based upon a system that awards a single point for criteria considered to be the minimum level for the provision of broadband service, with additional points awarded to criteria that exceed minimum levels. Applications receiving the highest score shall receive priority status for the awarding of grants.*

*The tool below is being provided to Applicants so that they may estimate their score to determine estimated match requirements. All final and official scores will be determined by the BIO during the review process.*

	Reviewer	Score
<b>a1) Partnership</b> - One point shall be given for a proposed partnership that will make available existing infrastructure that has been installed for the partner's enterprise, non consumer broadband purposes, or any other property, buildings, or structures owned by the partner, for a proposed project.	Choose One	0
<b>a2) Partnership</b> - A county or nonprofit entity that proposes to provide a financial match shall be given one point. Notwithstanding Article 8 of Chapter 143 of the General Statutes, or any provision of law to the contrary, a county may use unrestricted general funds or federal American Rescue Plan Act (P.L. 117 1) funds allocated to it for the purpose of improving broadband infrastructure for a financial match.	Choose One	0
<b>a3) Partnership</b> - An applicant shall receive two additional points for a proposed partnership where the county's financial match is comprised entirely from federal American Rescue Plan Act (P.L. 117 2) funds intended for broadband infrastructure.	Choose One	0
<b>b) Unserved Households(HH)</b> Using most recent FCC Data or other information or supporting data, <b>estimated number of unserved households within the eligible county (TIER ONE)</b>	500 or Less	1
<b>c) Unserved Households (HH) to be Served</b> Using most recent FCC Data or other information supporting data, <b>the percentage of the total unserved households with the eligible project area</b>	Less than 15%	1
<b>d) Unserved Business</b> Using most recent FCC Data or other information by NC BIO, provide broadband service to unserved business within eligible county (TIER ONE) and project area (Documentation)	1 and 4	1
<b>e1) Piedmont or Coastal Plain Region</b>	Choose One	
<b>e2) Mountain Region</b>	Choose One	
<b>f) Base Speed - Min Download : Upload</b>	100:20 Mbps to 100:100 Mbps	1.00
	<b>Total Score</b>	<b>3</b>
<b>g) Community Broadband Plan defined by NCBIO</b>	No	0
<b>h1)</b> For counties that received an aggregate of eight million dollars (\$8,000,000) or more directly from the federal government, the following points shall be added to the application score:	Choose One	
<b>h2)</b> For counties that (i) received less than an aggregate of eight million dollars (\$8,000,000) directly from the federal government from the American Rescue Plan Act (P.L. 117 2) and (ii) are providing a portion of a project's matching funds using the entirety of the federal funds the county received, together with any other unrestricted general fund monies, if needed, the following points shall be added to the application score:	Choose One	
<b>i1)</b> Are the matching funds partially comprised of ARPA funds a county received directly from US Treasury?	Choose One	
<b>i2)</b> Are the matching funds entirely comprised of ARPA funds a county received directly from US Treasury?	Choose One	
	<b>Final Score</b>	<b>3</b>

**NC DIT GREAT Program**  
Growing Rural Economies with Access to Technology Program

*List all expenses related to the project, the amount of each expense, and the corresponding funding source(s) in the table below. The table should include all of the eligible costs such as: installation, acquiring or updating easements, equipment, fiber, construction, backhaul infrastructure for the end user, and testing costs. Ineligible costs should not be included in the project budget. The table should clearly show all planned expenditures and all funding sources for the project.*

Reviewer Score:	3	Matching Requirement (%):	50%
Based on your scoring matrix, Your minimum match requirements:		\$3,349,193.73	
Total Project Cost:	\$6,698,387.45	Grant Amount Requested (\$):	\$0

Please indicate which documents were submitted with your application, by checking the appropriate box.  
~ Reference guidelines booklet for document details ~

- |   |                          |
|---|--------------------------|
| 1) Excel Spreadsheet (NO PDF) that itemizes the eligible activities and cost estimates. Please provide an explanation of how you estimated the costs                      | <input type="checkbox"/> |
| 2) What is the total cost per location for the project?<br>Please provide your methodology or explanation of how you calculated cost per location (Households/Businesses) | <input type="checkbox"/> |
| 3) Proof of Financial Solvency  | <input type="checkbox"/> |

Project Expense	GREAT Funds	Matching Funds	Total
Easements (one time fees)			0
Materials (fiber, equipment, etc.)			0
Construction/Installation			0
Testing			0
Engineering			0
Lease/Collocation Fees (one time fees)			0
Other 1			0
Other 2			0
Other 3			0
Total Eligible Project Cost			0

**Company Certifications**

1	Overdue Tax Debts	Does the Company or the Related Member(s) currently have any overdue tax debts with any City, Town or County in, or with the State of North Carolina?	No
2	Occupational Safety and Health Act Violations	Does the Company, or the Related Member(s) have any citation under the Occupational Safety and Health Act that have become a final order within the past three years for willful serious violations or for failing to abate serious violations?	No
3	Loan Defaults	Is the Company, or the Related Member(s) currently in default on any loan or grant previously made by the State of North Carolina?	No
4	Incentive History	Has the Company, or Related Member(s) ever defaulted on an economic development grant or incentive or been sued by a grantor with respect to an economic development grant or incentive from the State of North Carolina?	No
5	Creditor Losses, Litigation, Government Investigations	Has any member of management or any principal of the Company, or the Related Member(s) been involved in a financial reorganization, a bankruptcy, or other situation that led to losses by creditors or bond buyers, investor lawsuits, or government investigation alleging fraud or impropriety?	No
6	Pending or Threatened Litigation	Is the Company, or Related Member(s) subject to any claim, suit, action, proceeding, or government investigation that is pending or threatened that, individually or in the aggregate, would reasonably be expected to have a material adverse effect on the proposed grantee's finances or operations or the ability to conduct the proposed project, or that would reasonably be expected to impact the NC DIT's decision to award a grant?	No

**Internet Service Provider (ISP) Certification and Attestation**

**Internet Service Provider (ISP) Certification and Attestation**

The attached statements and exhibits are hereby made part of this application, and the undersigned representative of the applicant certifies that the information in this application and the attached statements and exhibits are true, correct, and complete to the best of the signatory's knowledge and belief. The signatory further certifies:

1. as Authorized Representative, the signatory has been authorized to file this application by formal action of the governing body;
2. agrees that if a grant is awarded, the applicant will provide proper and timely submittal of all documentation requested by the Grantor Agency;
3. that the applicant has substantially complied with or will comply with all federal, state, and local laws, rules, regulations, and ordinances as applicable to this project;
4. that the applicant certifies the financial and organizational strength regarding the ability to successfully meet the terms of the grant requirements and the ability to meet the potential for repayment of grant funds; and
5. attests that the proposed project area is eligible.

**Authorized Representative**

<b>Name:</b>	Seth Dunlap	<b>Title:</b>	Vice President Finance	<b>Date:</b>	05/02/2022
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