



SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: July 1, 2023.** Please include this submission form with the electronic entry. If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact [Gage Harter](#).

PROGRAM INFORMATION

County: _____

Program Title: _____

Program Category: _____

CONTACT INFORMATION

Name: _____

Title: _____

Department: _____

Telephone: _____ Website: _____

Email: _____

SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

Name: _____

Title: _____

Signature: _____

Orange County, Virginia’s elected officials have successfully bridged the digital divide by being one of the first counties in the nation to address the highspeed internet disparities that impacted our community. Connection in the digital age is vital to a healthy and vibrant community. Orange County’s rural geography poses construction and financial hurdles for private sector broadband companies to maneuver due to the large upfront capital costs and a small customer base. As such, Orange County residents were negatively impacted by the lack of high-speed broadband. The Orange County Board of Supervisors recognized the demand for broadband to deliver efficient and effective local government services, promote economic development, and empower our student population. The Board of Supervisors established and authorized the Orange County Broadband Authority (FiberLync) to bring high-speed fiber-to-the-home (FTTH) broadband services to the community.

Within the first four (4) years of deployment, the Orange County Broadband Authority has connected to the largest wholesale internet provider in the world, created a sustainable customer service and business model, laid over 360 miles of fiber (out of a total 603 miles of unserved roadways), connected 3,586 subscribers for an average “take rate” of 59.79%, and amassed over 5,400 subscribers on a waitlist. 60% of previously unserved residents are currently connected. *Chart A- Graphic Depiction of Results.*

In early 2019, Orange County surveyed residents regarding broadband internet availability. Overwhelmingly, residents responded that they either had no internet service or had an upload and download speed of 0-10 megabits per second (Mbps). Lack of broadband service impacted all aspects of our community from school children’s

ability to complete assignments, business attraction and retention, virtual medical services, and the ability to conduct everyday tasks such as online shopping. After attempts to seek private sector solutions the governing body decided it was necessary to create and deploy our own fiber-to-the-premise (FTTP) broadband solution. *Appendix B-Broadband Survey.*

Orange County's "Digital Citizen Initiative" planted the seed that would grow into fiber-to-the-premise (FTTP) connectivity for our community. Orange County and its partners have expanded to not only transform how school children access information, but how first responders keep our community safe, how local businesses function, and how residents stay connected to their work, healthcare, and play in the digital age.

After numerous attempts to seek private sector solutions to the lack of rural broadband in Orange County, the governing body decided it was necessary to implement a unique and fundamental change in problem-solving to deploy technology that was previously outside the scope of the County's mission.

The Broadband Authority/FiberLync was organized in April 2016 under the Virginia Wireless Service Authorities Act, Chapter 54.1 of Title 15.2 of the Code of Virginia. FiberLync was issued a charter by the State Corporation Commission in June of 2016, and the Orange County Board of Supervisors serves as the Board of Directors. FiberLync operates as a component unit enterprise of the County and as such can charge fees for service, issue debt, and otherwise utilize business-like practices similar to local or regional water authorities, airports, and landfills. FiberLync has been instrumental in the successful implementation of the "Digital Citizen Initiative". The objective of the Orange County Broadband Authority is to provide next generation

broadband access at a reasonable price to the unserved and underserved areas of our rural community. By bringing affordable broadband service to our community one connection at a time we will aid in enhancing overall quality of life for our residents while fostering economic development opportunities. From education experiences, to telemedicine, to working from home, all residents can benefit from digital connections.

In 2016 Orange County partnered with FiberLync and the Orange County Public School System (OCPS) to utilize a combination of federal grant dollars, bond issuance funds, and a small local match to leverage a multiuse fiber infrastructure that spans the county. The goal was leverage economy of scale to create a “dark fiber backbone” to the entire community. Dark fiber is unlit or unallocated fiber strands within a fiber bundle. The “dark fiber backbone” acts similarly to a spine, providing support and connections to an entire body of complex fiber connections. All three (3) agencies entered into agreements to empower FiberLync to maintain the network and act as an ISP (internet service provider), allowing the County and OCPS to focus on their core service missions.

The Orange County Board of Supervisors are the appointed officers of the Broadband Authority/FiberLync. As such, they have led the daily and strategic operational objectives of Fiberlync with support from Orange County via funding and staffing supplementation. We are partners, working together to ensure our community isn't left behind in the digital divide. If rural localities are to compete on the global stage, we must proactively solve the digital divide that plagues our communities. Much like rural electric cooperatives bridged the communication gap in the early 20th century, we are working from the ground up to ensure our community isn't left behind.

The “dark fiber backbone” was the first publicly owned fiber network in Orange County. The experience gained from managing the construction of the fiber project provided the catalyst for FiberLync to branch out and tackle the fiber-to-the-premise (FTTP) in unserved and underserved areas of Orange County. In addition, in 2018 while “dark fiber backbone” was under construction; FiberLync and the County partnered to expand from the “dark fiber backbone” to connect the first responder land mobile radio (LMR) system to highspeed internet. By utilizing bond financing obtained for the LMR project and utilizing unallocated fiber strands, the infrastructure was able to expand to connect six (6) LMR tower sites. *The connection of tower sites provides for consistent, reliable transmission of voice and data for the Orange County Sheriff’s Office, the Town of Orange Police Department, the Town of Gordonsville Police Department, Orange County Department of Fire and Emergency Services, Orange County E-911, five (5) volunteer fire agencies and one (1) volunteer emergency medical services agency, the transportation division of the regional jail, as well as bus drivers and administration officials with OCPS.* The implementation of the LMR system supported by a fiber network has allowed Orange County and its partners to achieve greater than 95% radio coverage rate compared to its former 17%.

From 2018 to 2023 FiberLync has worked non-stop to build out its fiber infrastructure. Orange County’s elected officials began to assemble a team of devoted staff to help bring their vision to fruition. In the beginning, County staff assisted with the procurement, financial reporting, funding management, and project management. It quickly became apparent that a dedicated team was essential to guaranteeing success. In 2019, the FiberLync hired a dedicated Broadband Program Manager to operationally

deploy a plan to bring FTTH to residents. Through strategic procurements with private sector providers, such as Equinix, engineering firms, and a responsive construction crew, the FiberLync slowly began to build its network and place fiber in the ground. The authority directors have been active participants in the daily operations of the organization since its inception, and have been instrumental in the planning, implementation, and project management of the FTTH program. Directors participated in all grant writing, procurement processes, financial decisions, strategic planning, and daily operations. Over the past four years, staff have grown to 17, however, daily involvement by the Chairman is still essential to ensure the vision is implemented.

The first FTTH beta tester was connected to the network on **January 29, 2021**. Since then, FiberLync has connected 3,586 subscribers for an average “take rate” of 59.79%, and amassed over 5,400 subscribers on a waitlist. 60% of previously unserved residents are connected as of January 2023. As of 2023, connectivity has grown to serve 65% of our community. FiberLync now manages over 360 miles of underground fiber; has connected 3,586 subscribers including over 20 businesses, and 3 government agencies to highspeed broadband. The primary recipients of FiberLync’s products and services are Orange County residents and businesses, government agencies within the County, non-profits, and volunteer fire and emergency medical service agencies. Additionally, through regional cooperation, FiberLync has expanded beyond our borders to assist residents and businesses in Spotsylvania and Greene counties. Overall, regional and local partners include: Orange County Government, Greene County Government, Spotsylvania County Government, Orange County Public Schools,

Orange County Volunteer Fire Agencies, Orange County Volunteer EMS Agencies.

Appendix C: Service Map.

The result has increased efficiency, created measurable improvements in communications effectiveness for public safety personnel, and deployed institutional capacity for the public schools and general government that was previously unattainable. By creatively designing this work to additionally serve the community at large, Orange County now meets an important public need that has fostered meaningful change for constituents within our community. *Appendix D: Timeline Chart.*

Orange County and FiberLync were able to leverage bond proceeds from the land mobile radio capital project, public safety building construction project, CARES Act funds, and direct cash contributions without raising taxes to fund the FTTH project. By creatively connecting the need for broadband to already funded capital projects we were able to utilize funds strategically to meet the objectives of multiple projects at once. To say the organization and implementation was complex, is an understatement. Like a three-legged stool we had to ensure all three projects worked in tandem with timing, implementation, deployment, and activation or else all projects would be unstable. It took a team of project managers from the County and FiberLync to ensure all went according to plan.

Elected officials set the framework for staff to utilize different funding sources for the FTTP project. Capital expenses were covered from various funding sources including combining capital projects, e-rate reimbursements, and CARES Act funds. Operational expenses are partly covered by revenue projections and reflect an increase year over year in conjunction with expanded staff and services.

As of the end of FY22, net capital assets totaled approximately \$22,400,000.

Capital costs included: fiber materials, engineering services, construction labor, electrical services, utility cabinets, utility buildings, etc. The largest capital costs were seen in the purchasing of machinery and equipment and construction labor.

Operational expenses for FY18-22 are reflected below:

Fiscal Year	Approximate Operating Costs
FY18	\$153,000
FY19	\$91,450
FY20	\$223,610
FY21	\$1,119,000
FY22	\$1,682,683

Operational costs include professional fees, insurance, leases, salaries and payroll taxes, fringe benefits, repairs and maintenance, depreciation and amortization and internet service costs. The large operational costs are captured in payroll and internet service costs.

Through a trailblazing partnership created between the Orange County Board of Supervisors and FiberLync, the “Digital Citizen Initiative” is on its way to being fully realized. Through partnerships, persistence, and support from our community, Fiberlync has been able to installed fiber covering over 44% of the County’s total overall road mileage. As of January 2023, 3,586 subscribers have been connected to fiber internet throughout the County’s 808.43 total miles roadway with 5,997 potential subscribers able to access affordable, reliable high-speed internet available to their homes and businesses. These figures represent a take rate to 59.79%. According to the most recent audit figures dated February 8, 2023, there is an estimated 5,400 pending orders for

service. 60% of previously unserved residents have been connected as of January 2023 which represent over 65% of our community.

The primary recipients of FiberLync's products and services are Orange County residents and businesses, government agencies within the County, non-profits, and volunteer fire and emergency medical service agencies. Additionally, through regional cooperation, FiberLync has expanded beyond our borders to assist residents and businesses in Spotsylvania and Greene counties. Overall, regional and local partners include Orange County Government, Greene County Government, Spotsylvania County Government, Orange County Public Schools, Orange County Volunteer Fire Agencies, Orange County Volunteer EMS Agencies.

From connecting first responders to increasing school transportation and in-building communications, Orange County's "Digital Citizen Initiative" has forever changed how we conduct business, provide government services, and empower our community for success.

"We've had FiberLync for a week now, and OMG!! Better than advertised!! Wicked fast upload/download speeds, 100% uptime, no data caps, amazing customer service, affordable prices. For a family that uses the internet everyday for work and school, FiberLync is a total game changer. Thanks!" Jarrod (Facebook review)

"Just want to say one of the BEST internets service there is! Waited for years and finally go it!! Thank you...Y'ALL (are) AWESOME" – Lisa Rowe (Facebook review)

It is daunting to imagine how a rural locality in this country can compete on the world stage when it comes to providing FTTP. Our message is this: You can do it! Work

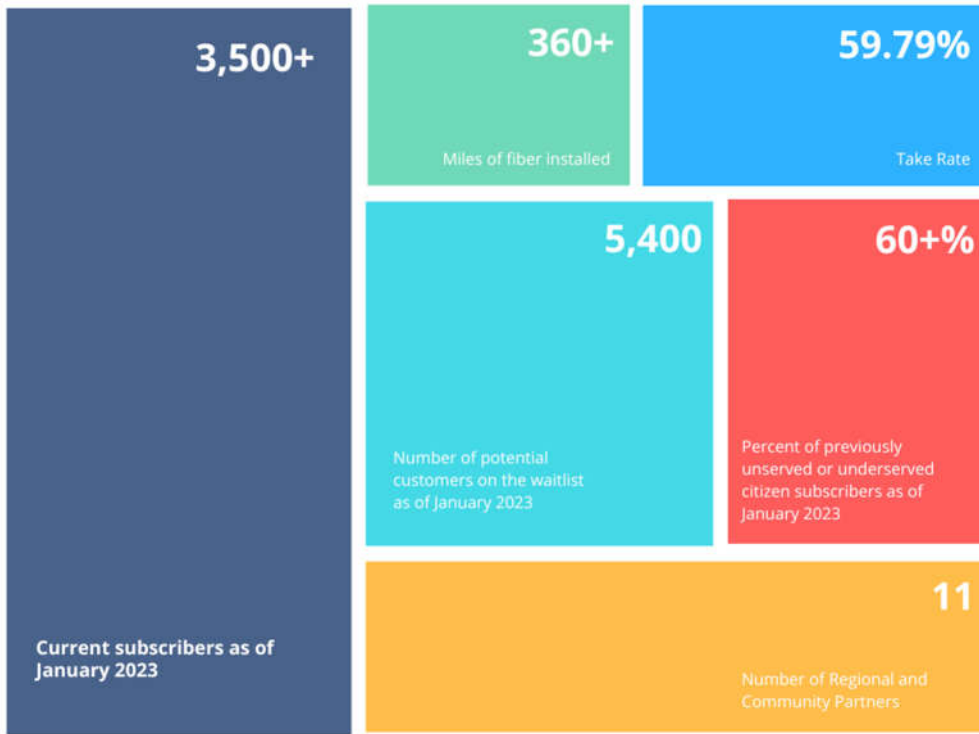
strategically to link up as many partners as you can from the private and public sector to create a sustainable connectivity plan.

No other locality in the Commonwealth of Virginia has implemented the level of broadband coverage as Orange County. Through creativity, passion, and determination, Orange County's elected officials have ensured that generations of residents will benefit from a planned investment in technology and infrastructure. The result is increased efficiency, measurable improvements in communications effectiveness for public safety, and institutional capacity for the public schools and general government that was previously unattainable. By designing the project to serve the community at large, Orange County has ensured our residents will not only meet the digital divide but can be trailblazers in it.

For more information on Orange County, VA visit www.orangecountyva.gov

For more information on FiberLync visit: www.fiberlync.net

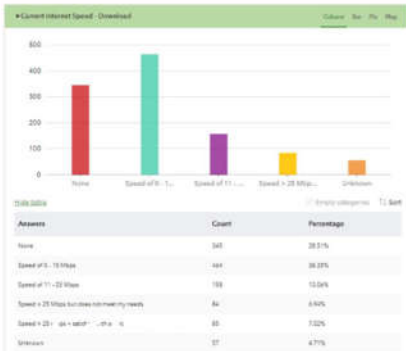
Appendix A:



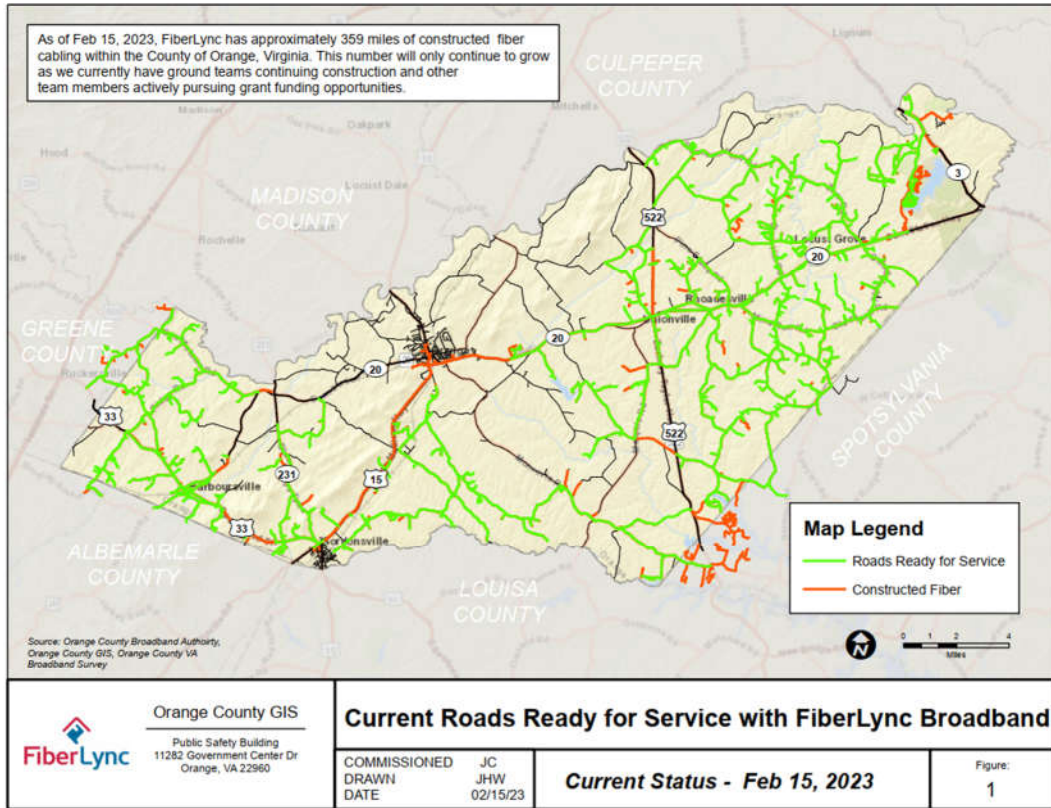
Appendix B: Broadband Survey



Broadband Survey



Appendix C: Service Map



Appendix D: Time Chart

