

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

Applicant Information

Company Name	Cloudwyze, Inc.
Address	1838 Sir Tyler Dr. Suite 200 Wilmington, NC 28405
Website	https://www.cloudwyze.com/
Federal Tax ID	
DUNS #	078574391
System Award Management (SAM.Gov) ID	QW17XCYCH9N3

Authorized Representative		Authorized Representative (Alternative)	
Full Name	Shaun Olsen	Full Name	Chris Utesch
Contact Title	President CEO	Contact Title	Business Development
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Grant Administrator & Company Name(if applicable):

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

Project Information

Project Title	Edgecombe County 2 GG 2022		
Project Cost	\$5,371,376		
County	Edgecombe	Tier #	001
Estimated # of Households with improved access	1556		
Estimated # of businesses with improved access	18		
Base Speed Minimum Download/Upload	Greater than 100:100 Mbps		

Project Description (provide a brief summary of the project)
The Edgecombe County + CloudWyze grant application is for a last mile fiber network, serving 1,574 homes and businesses in the areas defined by the NC BIO/FCC as not having access to internet speeds greater than 25x3Mbps. These locations will be able to access speeds up to 1Gigx1Gig.

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

Please Identify Partner
As part of our ongoing relationship, CloudWyze had a great meeting with Edgecombe County leadership during the application period, presenting our approach to expanding high speed internet access across rural North Carolina along with the network and deployment plan for this Edgecombe County Project. Leadership is supportive of expanding broadband access, and at the Board of Commissioners meeting on 5/3/22, the board adopted a resolution to support CloudWyze in our grant applications for Edgecombe County, this includes providing up to \$50,000 in financial support from ARPA funds.
As shown in the provided MoA: CloudWyze + Conterra we have established an infrastructure partnership with them to utilize their existing middle mile backbone in the communities to reach the unserved.

Checklist Details

1) Statement of Qualifications (Please provide a detailed description of qualifications and experience with the deployment of broadband):
CloudWyze was formed in 2012, by combining two wholly owned technology businesses, an MSP (Managed Service Provider) and an ISP (Internet Service Provider). CloudWyze then began building a purpose built network to better serve our client partners and provide the business technology services and support they needed and deserved. Coming from a corporate background, founder and CEO, Shaun Olsen knew the core IT necessities of a business such as security, data integrity and flexibility. Bringing this ability under one roof for small medium businesses would give smaller companies an edge and the benefit of working with one partner. This approach has guided our efforts to bringing quality internet to rural communities across North Carolina.
In 2015, CloudWyze was tapped by our state to consider working with communities in rural NC. After a few introductions and many meetings with various county leadership groups, the team at CloudWyze grew enlightened by the idea of using our capabilities for a bigger purpose and quickly focused on the establishment of a public private partnership. In 2018, CloudWyze and Nash County entered into a partnership to begin what would become a successful pilot

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program. The basis was to build a solid foundational network that was redundant, scalable, and flexible. At the end of 2018, Hurricane Florence tested our model in Wilmington and our network was one of the only networks operating normally. Although fiber laden utility poles were knocked to the ground all around the city, our hybrid network still remained standing. In 2019, the Nash County LTE pilot was completed, and service was being delivered in places which had never seen service at all, much less quality service. Later that year, CloudWyze pivoted, and the corporate vision shifted from empowering businesses to, “Empowering communities through technology by providing innovative solutions and building strong relationships”.

Today, we operate multiple geographically diverse networks. In addition to our rural residential customers, our commercial customers range from small offices to highly regulated financial institutions and scientific facilities. Many of those commercial customers have also invested in our efforts to expand our mission. Our relationship first focus is evidenced further by our active community involvement through partnerships and support for non profits such as the local United Way, the Wilmington Chamber of Commerce, the USS North Carolina battleship, the North Carolina Azalea Festival, Wi Fi deployments for free public internet access, art museums, and other community programs.

Network Design

CloudWyze has built and currently operates carrier grade, fully routed hybrid ISP and WISP networks in New Hanover, Brunswick and Nash Counties. We have completed the first two phases of our Nash County Regional network and have received support from the state to continue extending that network using funding from a 2020 GREAT grant. Our next phases define projects both in conjunction with the county for the harder to reach areas as well as privately funded fiber builds.

CloudWyze provides an industry leading Service Level Agreement (SLA) to area businesses and peers with other carriers to provide network redundancy as well as fiber connections. Our networks are built to the highest standards of operation and quality with the latest in technologies from our partners.

Experience in Broadband

CloudWyze CEO, Shaun Olsen, has been providing internet in New Hanover and Brunswick Counties since 2008 (prior to the formation of CloudWyze), after determining that a lack of quality broadband access existed in our own community. For our commercial partners, we use a technology agnostic approach, identifying the best solution for the specific situation and their business needs. For residential customers, we understand the need to have a consistent and high quality connection to efficiently serve the various needs of the residents at home.

CloudWyze currently has multiple Public Private Partnerships that enable counties to have influence on where broadband is deployed in their counties in order to serve their citizens and attract new investments from corporations and developers.

Demonstrated Experience Raising Capital

CloudWyze is unique in that we are both an Internet Services Provider (ISP) and a Managed Services Provider (MSP). The double edged business model allows us to provide much more to our customers than simply internet access; it provides an additional source of revenue generation, serves as a great economic development driver in our areas of operations, and has enabled us to attract a strong pool of investors. To support our rural broadband efforts, we have raised over \$24 million in private capital in just a few years, and we have secured a relationship with an experienced funding partner in order to further invest in the communities we serve, especially when supported by third party funding from grants or other funding sources.

While our county partners invest alongside CloudWyze under the Public Private Partnership, we also work with local non profits and enterprises to fund network builds. Most recently, CloudWyze worked with a camp in Harnett County to extend fiber from one of our towers out 5 miles to the camp. This area never believed service would come to their area, much less high speed fiber. While a short build, in partnership with the county and the non profit, this fiber will pass around 75 homes. It is the unique relationships like this one which make CloudWyze an optimal, financially minded community partner.

Commitment to Community

We are highly invested in providing quality rural broadband to North Carolina. Our business model has always been to “build the infrastructure, then show people how to use it.” CloudWyze is in the process of opening a local office in Nash County and has hired installation and sales team members from the local community. While larger firms were reducing their footprint in rural communities, CloudWyze sought to deepen our relationships to help our county partners to close the digital divide in their community. This begins with providing quality internet access, and continues to ensure services are affordable, and the citizens are comfortable and confident in adopting the internet. Additionally, in partnership with Nash County and Nash County Community College, we started a digital literacy program through the Kramden Institute out of Durham, NC with the completion of our first 16 week course accredited course in 2021. We intend to grow this program to each and every county we serve.

CloudWyze will continue building off the strong backbone we have created in Nash and have begun creating in Harnett County to provide our internet service in the surrounding communities that are also in need of quality internet access. Our networks are designed to provide outstanding reliability and a superior quality internet experience for users. Our hybrid networks have been designed with scalability and flexibility in mind, regardless of rurality, to allow for additional subscribers as more citizens move into the service areas and as new areas become serviceable, along with technology upgrade paths to provide additional speeds to keep up with future demand.

As mentioned above, our experience in broadband over the past years has positioned us to continue our expansion into rural North Carolina for the benefit of the citizens and businesses that are located here. With additional funding to match county and state grants, we will positively impact both access and adoption to ensure a sustained economic health of businesses and quality of life for the residents.

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

To determine the eligible areas for this grant application, we utilized the “NC OneMap” mapping tool provided by the Broadband Infrastructure Office and focused solely on the red shaded areas that are known to have access to speeds less than 25x3 Mbps, per the December 2020 Form 477 data. To reduce protests from incumbent providers, we avoided the yellow shaded areas with state surveys showing locations and census blocks with speed test results under 25x3 Mbps.

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

Our network can deliver speeds from 50Mbps (a low cost option) to over 1Gbps. Dedicated Internet Services range from 50Mbps to 1Gbps+. Other services we provide include hosted mail, cloud (servers and desktops), security, phone, network installation (wired and wireless), solution design, consulting, and hardware sales. In Edgecombe and Halifax Counties, we are proposing a Fiber To The Premise network providing the proposed Internet services below:

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Standard Internet Service Fiber (residential or business): Best effort and synchronous.

50 Mbps \$36.99
100 Mbps \$51.99
300 Mbps \$76.99
1 Gbps \$136.99

Install fee: Standard install is \$199 w/o contract or \$0 with a 12mo contract. Above pricing includes standard router with Wi Fi by Calix.

Dedicated Internet Service Fiber: Complete SLA (synchronous, strong uptime, ultra low latency and guaranteed speeds)

50 Mbps \$399
100 Mbps \$499
200 Mbps \$599
500 Mbps \$1199
1 Gbps \$1,499

Install fee: Standard install is \$499. Pricing includes an ethernet handoff with a static IP. Additional services such as multiple IPs, advanced routing, firewall, etc. are available upon request.

CloudWyze believes that quality internet access is as important as electricity or water for both economic development and quality of life for residents, and as such does not throttle speeds or cap data limits for any of our Internet services.

4) Description of Adoption Plan:

We believe that community involvement is essential. CloudWyze has hired and will continue to hire and train local representation for sales, customer service, installations, and support, as it is part of our model to set up regional offices in the areas we serve. We work with area agencies such as economic development offices, chambers of commerce, faith organizations, business resources and service organizations to get our message into the community. We believe that by being a partner, in addition to being a service provider, we can work with community agencies to help them recruit new businesses and help spark life into existing businesses. CloudWyze will work with the local governments and regional councils to conduct community engagement forums to promote awareness of the new network and services available to Edgecombe County.

Marketing our Services

CloudWyze works with numerous agencies (PR, marketing, etc.) to help drive our message and create awareness. In Wilmington, CloudWyze has, in a short time, created extremely high top of mind awareness by being active at local events, involved in non profits and supporting initiatives that our customers find important. By providing extremely devoted customer service, CloudWyze has been able to position itself as a highly respected company. We have received awards from the community, the Wilmington Chamber of Commerce, the local business journal, UNC Wilmington and many others. We sell our mission and reputation first, then our products.

For our current rural deployments, we utilize local entities and relationships as much as possible, as word of mouth is extremely valuable. Typically, we work with the local schools, with the approval of the school system, to send out fliers with students in the area that is coming online. These fliers ask the parents to complete one of our 'interested subscriber surveys' online, or to call our 24 7 call center to show their interest in our services and answer any questions they may have. After distributing fliers, we attend meetings with Homeowners Associations, civic clubs and faith based organizations to provide updates and answer questions. For specific areas, we deploy road signs and door hangers to notify residents that our service is now available in their area.

Increasing Internet Adoption

The demographic traits that characterize rural counties populations that are older, poorer, and less educated are often reflected in the profile of citizens who are least likely to adopt broadband. Too many citizens in these communities, including many of the counties in CloudWyze's targeted expansion area, cannot afford broadband service and devices, lack adequate digital literacy skills and in many cases, may not fully appreciate the relevance of broadband to their lives. Successful and sustainable deployments in these counties will depend on confronting adoption challenges through deliberate efforts to increase the awareness, interest and receptivity of citizens and businesses in taking advantage of the service being deployed. Concurrent with the network deployment, CloudWyze will engage with municipal, county, and regional governments and non profits to develop a locally customized strategy for enhanced public access and digital inclusion. Options for accomplishing this include, but are not limited to, the following key initiatives that target particularly onerous access and adoption challenges:

Kramden Digital Literacy Courses

Building on the learnings from our participation in the Upper Coastal Plains Council of Governments' BAND NC grant, we learned that the biggest area of need for this cohort was the grandparents and caretakers of school age children. We have provided an overview of the program with this attachment: Northstar Digital Literacy CloudWyze Nash Kramden

Nash County used a BAND NC grant to, in part, fund our program which became a partnership with Nash County, Nash Community College and the Kramden Institute to offer a 11 week course at Nash Community College to deliver instruction virtually from Durham, with an in person assistant to support the students with any challenges in the classroom.

For the first week of the cohort, we had 13 participants attend, which exceeded our limit of 10 participants. Due to various challenges, at the halfway point of the cohort, the number of participants was reduced to 8, who all completed the program. The cohort was completed after 12 weeks (covering the 11 Northstar Digital Literacy modules). Across the 8 regular attendees, there was a total of 63 Northstar certificates earned.

CloudWyze shared our findings with our peers in the Upper Coastal Plains Broadband Taskforce after the cohort completed. Going forward we have recommended an initial assessment to understanding the specific needs of the students. We have discovered there is a wide range of technical skills and

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abilities in this demographic and that it will be helpful to have an even more basic course, to help individuals learn rudimentary computer basics like typing, mouse use, and navigating around a computer/GUI. Additionally, 11 weeks was difficult for the participants (grandparents and caretakers) to maintain the commitment of in person night classes Mondays and Tuesdays, with proctored assessments on Thursdays. We have learned that it will be better to have more cohorts, at various skill levels, with shorter commitments. Additionally, many of the participants are eager for additional courses in their local communities. While the Nash Community college provided an excellent venue, the additional travel time from remote areas of the county, added to the challenges of attending and completing the cohort.

Moving forward, we intend to bring these programs closer to the folks who need them. Many of our projects are lined with bringing service to existing community centers, anchor institutions and, in some cases, new facilities.

Senior Citizens Our expansion of the Kramden Institute led senior focused projects modeled in Nash County will be replicated into other counties. This will be one of several options offered to counties and could be used as part of a broader strategy to evaluate and document impact of adoption on seniors. It is possible that supplementary outside support from foundations and/or federal agencies, such as USDA or EPA's Building Blocks for Sustainable Communities' program, could be sought to help support such efforts.

Student focused Programs The homework gap is a well documented impediment to the ability of rural students at every level to obtain education and skills training resources. Projects that enhance the capacity of local libraries to meet demand for access or for creative re use of vacant store fronts found in every rural community could address this problem. One scenario could involve partnering with the NC Rural Center's building re use program to convert such space into a community connectivity center. We have been working with the North Carolina Business Committee for Education to aid their efforts to prepare and equip teachers and students for remote learning, which has gained heightened importance during the COVID 19 pandemic. We intend to continue to strengthen key relationships like this to ensure that the citizens in these communities are able to take advantage of the internet access that is being made available to them.

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"/>
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
a1) Partnership - 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
a2) Partnership - 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
a3) Partnership - 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) Unserved Households(HH) Using most recent FCC Data or other information or supporting data, estimated number of unserved households within the eligible county (TIER ONE)	500 or Less	1

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c) Unserved Households (HH) to be Served Using most recent FCC Data or other information supporting data, the percentage of the total unserved households with the eligible project area	Less than 15%	1
d) Unserved Business 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
e1) Piedmont or Coastal Plain Region	Choose One	
e2) Mountain Region	Choose One	
f) Base Speed - Min Download : Upload	100:20 Mbps to 100:100 Mbps	1.00
Total Score		3
g) Community Broadband Plan defined by NCBIO	No	0
h1) 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	
h2) 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	
i1) Are the matching funds partially comprised of ARPA funds a county received directly from US Treasury?	Choose One	
i2) Are the matching funds entirely comprised of ARPA funds a county received directly from US Treasury?	Choose One	
Final Score		3

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:		\$2,685,688	
Total Project Cost:	\$5,371,376	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? 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

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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

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

Name:	Shaun Olsen	Title:	President CEO	Date:	05/04/2022
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