

### Applicant Information

Company Name	E-POLK, INC
Address	PANGAEA 75, S. Trade Street, Suite C Tryon, NC 28782
Website	<a href="https://pangaea.us/">https://pangaea.us/</a>
Federal Tax ID	
DUNS #	163047900
System Award Management (SAM.Gov) ID	XXXXXXXXXX

Authorized Representative		Authorized Representative (Alternative)	
Full Name	Ashley M Frantz	Full Name	Liz Kayser
Contact Title	Business Manager	Contact Title	Manager
Phone Number	8288593072	Phone Number	9038019698
E-Mail	ashley@e-polk.org	E-Mail	lkayser@jsitel.com

### Grant Administrator & Company Name(if applicable):

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

### Project Information

Project Title	PANGAEA FTTP NCGG 2022 Rutherford County		
Project Cost	\$7,144,000		
County	Rutherford	Tier #	001
Estimated # of Households with improved access	2,309		
Estimated # of businesses with improved access	27		
Base Speed - Minimum Download/Upload	Greater than 100:100 Mbps		

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

**Project Description**  
e-Polk, Inc. d/b/a PANGAEA Internet (PANGAEA Internet) was formed in 2003 as a public-private partnership with local counties to build, own and operate a fiber optic network to provide affordable broadband internet solutions. PANGAEA Internet's GREAT Grant proposed project will construct a 100% Fiber To The Premises (FTTP) network to deliver much needed broadband at speeds up to 1 Gbps symmetrical to customer premises in the Tier 1 Rutherford County area. The project will be an all-fiber PON solution. PANGAEA Internet will serve both residential and business locations with internet speeds readily available up to 1 Gbps symmetrical and expandable to 10 Gbps. The design for this project is based on XGS-PON technology (10 Gbps symmetrical) that will be located in five small remote buildings, known as secondary data centers in the PANGAEA Internet network. The proposed XGS-PON technology will provide speeds that far exceed the required 100 Mbps symmetrical service outlined in the GREAT Grant. The project will construct approximately 128 miles of fiber to serve 2,336 locations/households, including homes, businesses, and community anchor institutions, in the Proposed Funded Service Areas (PFSAs) in Rutherford County North Carolina.

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

Yes

### Checklist Details

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

**Applicant Information**  
e-Polk, Inc. d/b/a PANGAEA Internet ("PANGAEA Internet"), was formed in 2003 as a public-private partnership with the local communities to build, own and operate a fiber optic network. PANGAEA Internet is a 501(c)(3) corporation formed to address the critical infrastructure needs of Rutherford and Polk counties through the provision of affordable broadband internet solutions, with an emphasis on the unserved rural areas of those counties. PANGAEA Internet's nonprofit mission is to deliver affordable, reliable connectivity and services for the region, which will enhance economic development, improve the quality of life, and create a broad platform of innovation enabling unserved areas. PANGAEA Internet has a 20-year history as a self-sustaining nonprofit broadband organization.

Highlights of PANGAEA Internet's organizational strengths include a very low, nonprofit cost structure, capital costs funded primarily through grants and

### Checklist Details

partner funding, a disciplined focus on quality bandwidth and transport, and unmatched commitment to customer service. PANGAEA Internet's customized pricing is consistently less than alternative providers serving the region. PANGAEA Internet has a long history of successfully utilizing \$5 million in grant awards to expand broadband infrastructure to meet the needs of these unserved Western North Carolina communities.

#### Statement of Qualification

PANGAEA Internet has a 20-year track record of providing state-of-the-art fiber service. This tenure reflects an operational and technical command of broadband deployment and service delivery, as well as demonstrates financial acumen in its stewardship of the organization's financial resources. The associated level of demonstrated knowledge and experience of PANGAEA Internet's board, management and staff will be a major asset to this project's on-time and on-budget completion, and to the assurance of its long-term sustainability. e-Polk, Inc. has received approximately \$5 million in grants and partner funding resulting in its ever-expanding fiber optic network that now exceeds 350 miles connecting key anchor institutions and businesses throughout Rutherford and Polk counties. With a positive operating income since 2010, PANGAEA Internet has a time-tested sustainable business case which is both financially sound, as evidenced by its strong cash reserve balance, and consistently lauded, as evidenced by the 125 customers who submitted written testimonials noting the organization's outstanding service and support. PANGAEA Internet is vested in the counties that it serves. With staff and contractors living in the service areas and through their active participation in community organizations and activities, PANGAEA has a unique and strong bond to Polk and Rutherford Counties and is committed to improving the lives of their fellow residents through the expansion of the broadband network. The Company's Board of Directors is comprised of esteemed members of the community. When PANGAEA Internet's customers contact the Company, they talk to a local person, not someone in another state. In addition to the management team listed below PANGAEA Internet will be utilizing the expertise of Mid-State Engineering/JSI and a number of outside plant contractors to ensure all requirements of the GREAT Grant are met in a timely fashion.

#### Management Team of PANGAEA Internet

Ron Walters, PANGAEA Internet's Executive Director, will manage the Company's efforts on behalf of this application. Ron is a 38-year veteran of the telecommunications and internet industries. Ron joined PANGAEA Internet in 2007 as a consultant and wrote the company's first comprehensive business plan. He is responsible for the overall management of the company. Previously Ron had a very successful career at both large and small telecommunications companies, including AT&T (Indianapolis), Ameritech (Chicago), Intermedia Communications, Z-Tel Communications and Trinsic Communications (all in Tampa). His areas of experience include finance, investor relations, product marketing, business development, sales, project management, contract negotiation, and regulatory/industry policy. Ron has BA and MBA degrees from Indiana University's Kelley School of Business. During his tenure PANGAEA Internet has experienced exponential growth.

Ken Griffin, PANGAEA Internet's Operations Director, will manage the operations of the proposed project, including supervising procurement, construction, and completion of the proposed sites. Ken joined the PANGAEA Internet team in 2015. He has nearly 30 years of information technology support and management experience. As the Operations Director he is responsible for all day-to-day operations including network equipment, planning, forecasting, design, installation, maintenance, repair, and support. Before coming to PANGAEA Internet Ken was most recently an Information Technology Director and has held previous positions as a Computer Systems Administrator, a Wide Area Network Administrator, an Infrastructure Administrator, and a Team Leader with various companies in North Carolina. He has a Bachelor of Science degree in Computer Science from UNC.

Ashley Frantz, PANGAEA Internet's Business Manager, provides management of grants, marketing/advertising, sales and sales support, community relations, business process improvement, corporate communications, and corporate projects. She supports all business units within the organization, and works with customers, vendors, grantors, and community partners including government, education, and healthcare. Before coming to PANGAEA Internet Ashley was most recently a Client Partner with Gartner, a highly regarded IT research and analytics firm where she worked with CIO's and their teams at major healthcare systems across the US.

Additional information concerning PANGAEA Internet is available at <https://pangaea.us/>.

#### Board of Directors of PANGAEA Internet

PANGAEA Internet's Board of Directors includes long-time community leaders. Some board members have served since PANGAEA Internet's inception in 2001.

Jim Edwards, President, Board Member since 2003. Retired Executive Director Isothermal Planning and Development, now Foothills Regional Commission, Rutherfordton, NC.

Joseph Crowder, Secretary, Board Member since 2005. Retired Grant Manager, Columbus, NC.

Harry Grymes, Treasurer, Board Member since 2003. Executive Director of Operations, Cummings Cove Golf and Country Club, Hendersonville, NC.

Steve Garrison, Director, Board Member since 2016. County Manager Rutherford County, Rutherfordton, NC.

Marche Pittman, Director, Board Member since 2004. County Manager Polk County, Columbus, NC.

Russ Pitts, Director, Board Member since 2010. Technology Consultant, Lake Lure, NC.

#### Partnerships

For this project, PANGAEA Internet will leverage long-standing and valuable public-private partnerships, especially long-term relationships with Rutherford County Government and Schools, the Rutherford County Economic Development Commission, and the Foothills Regional Commission.

Since 2007, PANGAEA Internet has participated in several formal community broadband planning groups with NCDIT and county leaders and stakeholders, including Foothills Regional Commission and Rutherford County Economic Development, to create a broadband strategy aimed at enhancing availability of broadband internet to the county's unserved residents.

Rutherford County Government serves on PANGAEA Internet's Technical Committee and Board of Directors. In addition to the \$1.5 million match from ARPA funds that Rutherford County has committed to PANGAEA Internet for the proposed GREAT Grant project, Rutherford County also provides space in its buildings for PANGAEA Internet's equipment and shares data centers, allowing PANGAEA internet to successfully oversee network operations, management, and maintenance.

PANGAEA Internet's diverse partnerships have resulted in more than \$5 million in funding that was used to build a 350-mile fiber optic network, which serves every public school in Polk and Rutherford counties, the local charter school Thomas Jefferson Classical Academy, seven municipal and two county



### Checklist Details

governments (including libraries and fire stations), Isothermal Community College, St. Luke's Hospital and Rutherford Regional Hospital, as well as many medical offices and pharmacies. PANGAEA Internet also serves many commercial customers, including the Tryon International Equestrian Center.

Public/private partnerships have provided the necessary critical foundational infrastructure to create and maintain a state-of-the-art network, and through a customer focused approach to service delivery, produce a dramatic community impact. PANGAEA Internet and Rutherford County government have jointly built, operated, and managed the network together since 2007 and this GREAT Grant award will strengthen the partnership and exponentially increase the community benefits.

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

##### Assessment of the Current Level of Broadband

The proposed service areas identified in PANGAEA Internet's GREAT Grant Application are all within Rutherford County and have been identified as unserved. Due to the low population density of these areas and the difficult geographic terrain, the economics to this area have made it unappealing to most for-profit companies. The abundant geographic obstacles make it cost prohibitive for most companies to invest in the infrastructure and technical support necessary to provide internet services to an area reflective of both high-deployment costs and low population density. Uploaded maps of the entire area show the boundaries and proposed customers that presently do not have at least 10 Mbps downstream and 1 Mbps upstream. In addition, the Rutherford County Schools (RCS) completed a survey to determine if broadband service was lacking in Rutherford County. PANGAEA Internet's proposed GREAT Grant service area includes student households that participated in the survey attend Sunshine Elementary, Pinnacle Elementary, Chase High, Cliffside Elementary, Mt. Vernon-Ruth Elementary, Harris Elementary, RS Central, East Rutherford Middle, East Rutherford High, and RS Middle (this school will open in the fall 2022). The results of the survey confirmed NCDIT's information showing that large portions of Rutherford County are unserved. A copy of the results of RCS's survey is attached.

The COVID-19 pandemic highlighted the great need for access to qualifying broadband in this difficult-to-serve area. PANGAEA Internet's proposed project will spark economic opportunities, facilitate educational aspirations, enhance healthcare, and bolster public safety in the proposed areas by delivering high-speed broadband capabilities to residents who otherwise would have inadequate broadband services or lack the ability to participate in real-time services such as remote learning, video streaming, telehealth and telework. If PANGAEA Internet is awarded a GREAT Grant, these very rural and difficult-to-serve areas can gain access to gigabit broadband service.

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

##### Description of Proposed Services, Advertised Speed and Pricing Structure - CONFIDENTIAL

PANGAEA Internet will provide 1 Gbps broadband service with unlimited usage, for \$75 a month; optional services will include Voice-over-Internet-Protocol (VoIP), managed router, and technical support, to any residential or small business customer. Customized service will be offered to premium business customers starting at \$100/month. PANGAEA Internet's core equipment is capable of providing up to 10 Gbps service. PANGAEA Internet will participate in the Affordable Connectivity Program (ACP) upon award of a GREAT grant. Participation in the ACP will allow eligible households to receive a substantial discount on their broadband service.

PANGAEA Internet's speeds that will be offered to its customers far exceeds the required 100 Mbps symmetrical speed, which qualifies for a base speed score multiplier of 3x.

Service Plan		Price per Month
Residential Broadband	1 Gbps symmetrical	\$75
Small Business Broadband	1 Gbps symmetrical	\$75
Premium Business Customers Broadband	1 Gbps symmetrical	Starting at \$100

##### Optional Services:

Residential VoIP  
Business VoIP  
Managed WiFi

#### 4) Description of Adoption Plan:

##### Adoption Plan

PANGAEA Internet will take a multipronged approach to stimulating adoption in the proposed service areas. Rutherford County, like many rural counties across the state has low internet adoption rates due to multiple factors, the primary being availability. However, even when that first barrier is resolved there are three others that impact the rate of adoption: cost, technological literacy, and the perception of the internet's relevancy.

As soon as construction starts in the proposed areas, PANGAEA Internet will advertise using yard signs, billboards, radio spots and marketing to the community in a variety of ways including community education forums. An added benefit is PANGAEA Internet already has relationships with community champions across the county, who are well connected in the proposed service areas. The entirety of PANGAEA Internet's staff and contractors are local and well connected to the areas of need. The assumed take rate of 33% is based on comparative take rates of ISPs building out in areas that are unserved in the region. Providing 1Gbps symmetrical with no data caps is a great start to addressing cost as a barrier. However, many in Rutherford County struggle financially and will not only participate in the Affordable Connectivity Plan which will reduce qualified customer's monthly bills but will also utilize a history of subsidizing various costs such as installation and monthly fees to further address the needs of potential customers. Rutherford County Schools currently provide every student with an iPad, but many do not have access to reliable internet at home, furthering the homework gap. This issue is addressed in several of the support letters provided.

An estimated 33% take rate will be achieved with just the efforts listed above but, as a non-profit mission-based organization, PANGAEA Internet is not only concerned with the take rate of these specific service areas but the region as a whole and understands that the work to increase adoption doesn't stop with marketing. Thanks to funding provided by Dogwood Health Trust and facilitated by Foothills Regional Commission, PANGAEA has been asked to participate in a regional Digital Inclusion Planning effort. With insight from the NCDIT and the Institute for Emerging Issues at NC State, contributing to Digital Inclusion Planning will foster greater rates of adoption and further economic development and educational performance.

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

## NC DIT GREAT Program

### Growing Rural Economies with Access to Technology Program

**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
<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	



## NC DIT GREAT Program

### Growing Rural Economies with Access to Technology Program

<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	
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:		\$3,572,000	
Total Project Cost:	\$7,144,000	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

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:	Ashley Frantz	Title:	Business Manager	Date:	05/04/2022
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