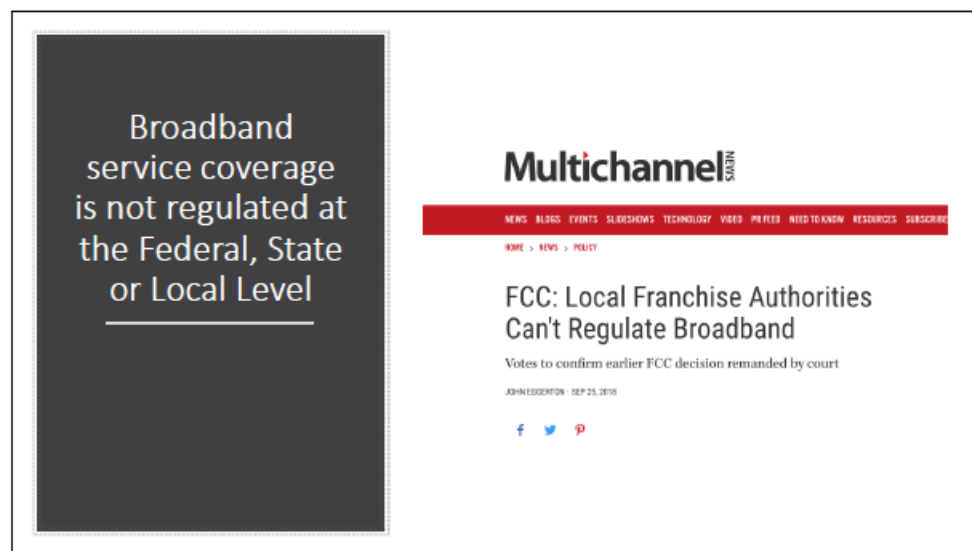
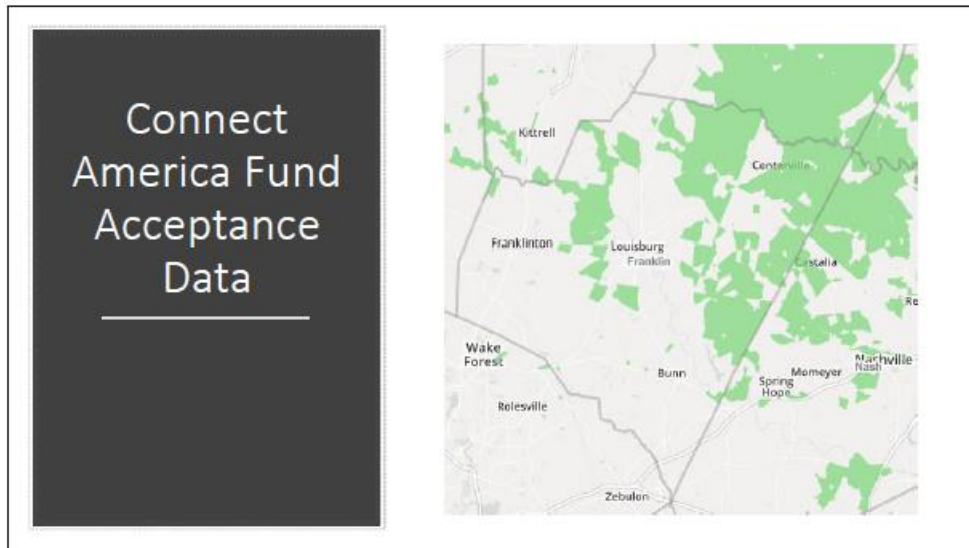


January 29, 2019

The Board of Commissioners of Franklin County, North Carolina, met for a Special Called Meeting at 3:00 P.M. at the Franklin County Cooperative Extension Annex with the following Commissioners present: Chairman Sidney E. Dunston, Vice-Chairman Shelley L. Dickerson, Commissioners Cedric K. Jones, Michael S. Schriver, David T. Bunn, Mark Speed, and Harry L. Foy, Jr.

Chairman Dunston called the meeting to order for the purpose of a work session regarding broadband. Joe Freddoso made the following presentation to Commissioners.





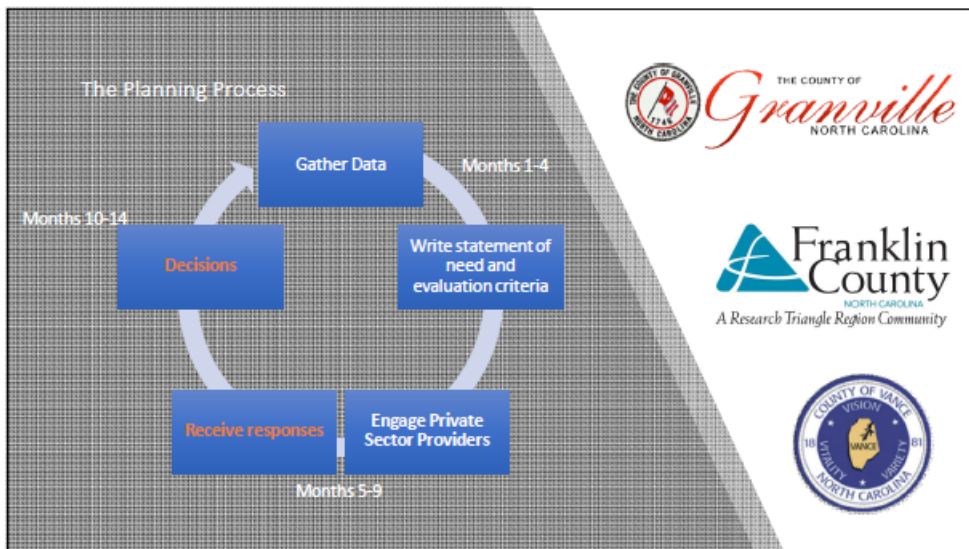
What does the CAF acceptance mean?

GREAT GRANT PROGRAM
Subsidies to providers
Growing Rural Economies with Access to Technology - **INELIGIBLE**

USDA E-Connect
Subsidies to providers
\$200 M in Grants to Providers- **INELIGIBLE**

Existing State and Federal Grant Programs for Broadband are based on FCC CAF funding and FCC Data

Current Rate: \$45.00/mo. Life Time Contract.
for any speed up to 25M. Speed may not be available in your area. No SLA. Rate excludes taxes; activation fee applies.*



Survey Results – Franklin

- Franklin County Businesses**
- 50% Dissatisfied with current service
 - 74% Want to upgrade
- Franklin County Residential**
- 56.1% Dissatisfied with current service
 - 84.56 % Want government to take a role in improving service
 - 2073 Respondents



Survey Results – Granville

- Granville County Businesses**
- 56% Dissatisfied with current service
 - 91% Want to upgrade
 - 97.67% Want government to take a role in improving service
- Granville County Residential**
- 50.1% Dissatisfied with current service
 - 744 Respondents



Survey Results – Vance

Vance County Residential

- 713 responses
- 35% of those that responded did not have access to broadband
- 47% of those that responded that they had broadband service said it was not affordable
- 25% of those that responded that they had broadband service said the speed/reliability was not adequate



Overall Highlights

- All respondents submitted proposals for **all three counties**
- **Last Mile Service Proposals – North Carolina Broadband Partnership and Open Broadband** both propose to invest significantly in the counties to deploy last mile fixed wireless service with some potential for fiber in high density areas.
- **Consulting Proposals**-both propose to consult with the counties on the construction of a middle mile fiber network spanning the three counties. The counties would operate this fiber in an open access manner.
 - Both these proposals would require investment in a fiber build by the counties

4 Proposals
Received

2 Planning to
bid fiber
networks

- **Foresite Group**-Plan to build a \$20 million fiber network throughout 2019 that counties would own. Fiber network would be a 220 mile spine throughout the Counties that would feed last mile services. The \$20 million would be allocated by county by miles. Counties would lease fiber to carriers.
 - No pricing package.
 - Cost for consulting is \$223,288 for Vance, for Granville \$264,555; for Franklin is \$270,423.
 - Consulting would last entire year of 2019
- **Riverstreet Networks** - \$66,000 per county fiber build feasibility study; 211 mile fiber network to feed fiber and mostly wireless last mile. Cost of the Network would be \$15 million allocated per mile to the counties.
 - Lowest price for 25 Mbps/3 Mbps for \$45 MRC after the \$15 million fiber build
- **Feedback from Broadband Action Committees and Managers is that**
 - State law is unclear on legality
 - Not Fiscally Feasible

4 Proposals
Received


2 Provided
Competitive
Broadband
Service

- **Open Broadband** – A North Carolina based company incubated in 2015. Serves select rural NC communities with last mile service. Mainly Fixed Wireless with Fiber Backhaul. Proposal also highlights community WiFi hotspots.
- **North Carolina Broadband Partnership (NCBP)** – Private equity and an experienced broadband provider partnered to propose mainly fixed wireless last mile broadband service in the three counties.

Service
Proposals




Franklin County – NCBP		
Category	Content	County Investment Other Factors
Technical	Fixed Wireless to all markets Declaration Networks is the provider Wireless and Fixed Wireless Backhaul 8 Towers; 5 Community Masts Unlicensed spectrum 10 to 1 oversubscription on backhaul	\$2.5 Million Starter Proposed \$7.5 Million Investment \$3.5-5 invested by NCBP <i>These fees are proposed and appear negotiable</i>
County responsibilities	Investment in starter fee Consider for County Business Co-marketing	Economic Development allowed by State Law
Service Packages	5 Mbps Symmetrical - \$65 MRC 10 Mbps/5 Mbps-\$85 MRC 25 Mbps/10 Mbps – \$110 MRC \$99 install/\$199 Equipment 24 month contract Business packages 25% higher Add Voice	Can try to work down starter fee with County Business Confirmed packages in Q&A Open to buying down rates




Franklin County – Open Broadband

Category	Content	County Investment
Technical	<p>Fixed Wireless with all fiber backhaul No weekend/off hours on-site residential 10G backhaul to start Fiber for high density Hot Spot Zones as listed No fee racks with power</p> <p>Frequencies – Backhaul 24 GHz and 11 GHz Last-mile: 5 GHz and Below (CBRS, LTE)-within 300' of a aggregation tower Non-Line of Site: 3.6 GHz Average hops to last mile 2</p>	<p>No direct County Investment Minimum Gov't Commit-\$3,000 MRC Free access to towers and rooftops Franklinton-2 Hot Spots (\$500 MRC/\$1250 OTC) Louisburg-2 Hot Spots (\$500 MRC/\$1250 OTC) Youngville -1 Hot Spot (\$500 MRC/\$1250 OTC) Bunn –1 Hot Spot (\$500 MRC/\$1250 OTC) Zebulon area of County-1 Hot Spot (\$500 MRC/\$1250 OTC)</p>
County responsibilities	<p>Help gain revenue commitments Free tower access</p>	<p>Co-marketing No rent on towers Build \$10K – 120' Rohn Towers</p>
Service Packages	<p>Government 25 Mbps - \$80 MRC (SLA: 99.99% Uptime; Latency; Packet Loss; Jitter TBD) 50 Mbps-\$120 MRC 100 Mbps-\$150 MRC One time install is \$150/site 60 month contract</p> <p>Residential – No SLA 25 Mbps/3 Mbps - <\$50 MRC (willing to do less than a 60 month contract)</p>	<p>Meet revenue commitments with residential, business or government customers</p> <p>Open to buying down rates</p> <p>Proposal does not exceed the 20% Investment Threshold</p>




Franklin County – Sample Rate Card

Category	Content
Residential	<p>25 Mbps download/3 Mbps upload \$39.99 Per Month and \$99 Installation 25 Mbps symmetrical \$49.99 Per month and \$99 Installation 50 Mbps symmetrical \$59.99 Per Month and \$99 Installation 100 Mbps Symmetrical \$99.99 Per month and \$125 Installation 200 Mbps symmetrical \$139.99 Per Month and \$125 installation 60 Month Contract</p>
Business	<p>25 Mbps - \$80 MRC (SLA: 99.99% Uptime; Latency; Packet Loss; Jitter TBD) 50 Mbps-\$120 MRC 100 Mbps-\$150 MRC One time install is \$150/site 60 month contract</p>
Technical Details	<ul style="list-style-type: none"> Greenlight (City of Wilson Providers) is 24x7x365 Technical Support Local marketing, installation and engineering staff Current deployments in Wayne County, Duplin County, Gaston County, Rutherford County, Stanly County, Mecklenburg County, Lee County, Rowan County, and Orange County.



Granville County – NCBP

Category	Content	County Investment Other Factors
Technical	<p>Fixed Wireless to all markets Declaration Networks is the provider Wireless and Fixed Wireless Backhaul 6 Towers; 12 Community Masts Unlicensed spectrum 10 to 1 oversubscription on backhaul</p>	<p>\$2.5 Million Starter Fee \$6.9 Million Investment \$3.4-4.9 M invested by NCBP <i>These fees are proposed and appear negotiable</i></p>
County responsibilities	<p>Investment in starter fee Consider for County Business Co-marketing</p>	<p>Economic Development allowed by State Law</p>
Service Packages	<p>5 Mbps Symmetrical - \$65 MRC 10 Mbps/5 Mbps-\$85 MRC 25 Mbps/10 Mbps – \$110 MRC \$99 install/\$199 Equipment 24 month contract Business packages 25% higher Add Voice</p>	<p>Can try to work down starter fee with County Business</p> <p>Confirmed packages in Q&A</p> <p>Open to buying down rates</p>

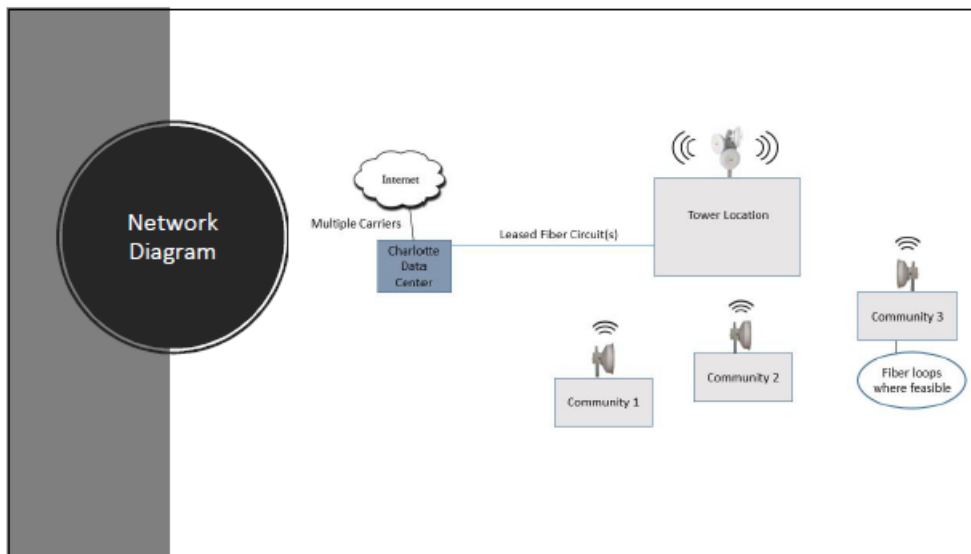


Granville County – Open Broadband		
Category	Content	County Investment
Technical	<p>Fixed Wireless with all fiber backhaul</p> <p>No weekend/off hours on-site residential</p> <p>10G backhaul to start</p> <p>Fiber for high density</p> <p>Hot Spot Zones as listed</p> <p>No fee rack with power</p> <p>Frequencies – Backhaul 24 GHz and 11 GHz</p> <p>Last-mile: 5 GHz and Below (CBRS, LTE)-within 300' of a aggregation tower</p> <p>Non-Line of Site: 3.6 GHz</p> <p>Average hops to last mile 2</p>	<p>No direct County Investment</p> <p>Free access to towers and rooftops</p> <p>Min Government Revenue-\$3000 MRC</p> <p>Stem \$500 MRC to begin service</p> <p>Oxford-6 Hot Spots proposed</p> <p>(3 @ \$500 MRC/\$1250 OTC)</p> <p>(3 @ \$300 MRC/\$750 OTC)</p> <p>Creedmoor – 1 hot spot</p> <p>(1 @ \$500 MRC/\$1250 OTC)</p> <p>Butner – 1 hot spot</p> <p>(1 @ \$500 MRC/\$1250 OTC)</p> <p>Stovell – 1 hot spot</p> <p>(1 @ \$500 MRC/\$1250 OTC)</p>
County responsibilities	<p>Help gain revenue commitments</p> <p>Free tower access</p>	<p>Co-marketing</p> <p>No rent on towers</p> <p>Build 510K – 120' Rohn Towers</p>
Service Packages	<p>Government</p> <p>25 Mbps - \$80 MRC (SLA: 99.99% Uptime; Latency; Packet Loss; Jitter TBD)</p> <p>50 Mbps-\$120 MRC</p> <p>100 Mbps-\$150 MRC</p> <p>200 Mbps: \$225 MRC</p> <p>1000 Mbps: \$575 MRC</p> <p>One time install is \$150/site</p> <p>One time install is \$150/site</p> <p>60 month contract</p> <p>Residential – No SLA 25 Mbps/3 Mbps - <\$50 MRC (willing to do less than a 60 month contract)</p>	<p>Meet revenue commitments with residential, business or government customers</p> <p>Open to buying down rates</p>



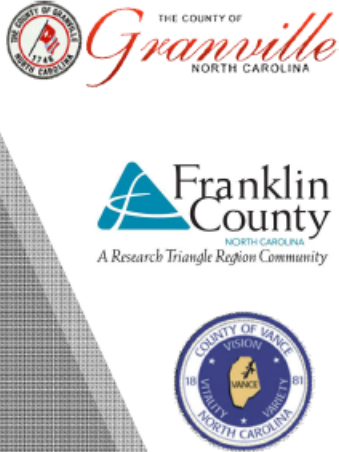
Not your 2013 Wireless (source Ubiquiti)

Frequency	2013	2019
24GHz	<p>Range less than a mile</p> <p>360 Mbps Aggregation</p>	<p>20 Km</p> <p>2 Gbps Air Fiber (Ubiquiti)</p>
5 GHz	<p>Range is about 300' outdoor</p> <p>Bandwidth is 100 Mbps</p>	<p>13 Km</p> <p>1.2 Gbps support</p>



Items to consider

Franklin	Granville	Vance
Hotspots in underserved areas	Hotspots in underserved areas	Hotspots in underserved areas
Buying down rates through a subsidy	Buying down rates through a subsidy	Buying down rates through a subsidy
Service Contract vs. Subsidy Agreement	Service Contract vs. Subsidy Agreement	Service Contract vs. Subsidy Agreement
Minimum Fiscal Commitment Open BB: \$3000 MRC for 5 years; \$36,000 per year; \$180,000 over 5 years	Minimum Fiscal Commitment Open BB: \$3000 MRC for 5 years; \$36,000 per year; \$180,000 over 5 years	Minimum Fiscal Commitment Open BB: \$3000 MRC for 5 years; \$36,000 per year; \$180,000 over 5 years
NCPB-\$2.5 million over 2 years	NCPB-\$2.5 million over 2 years	NCPB-\$2.5 million over 2 years




Items

Rate Buy Down	Hot Spots	Contract
\$50/Month is minimum	Focus on underserved areas	Contract for service is different than contract for subsidy
Subsidize \$30 per month for 300 residential customers in certain areas	School; Library; Firehouse; Gathering Spot; Church	Subsidy allows County to have some reporting of progress
\$9,000 Month \$108,000 Year for 5 years	County pays but counts toward \$3000 MRC	Subsidy allows County to track deployments
Contractual Commitment to: - Show evidence of deployment - Satisfy Underserved areas - Get something for your dollars but do direct good - Person – Economic Development	Immediate impact in these underserved areas Do not create the aura of focusing hot spots on high population areas	Subsidy could take the form of: - Open BB- Business commitments over \$3000 MRC or rate buydown - NCBP – This will be a subsidy agreement with the \$2.5 million investment



NEXT STEPS

- Managers meet with both vendors (December 18/January 19)
- Managers & consultant-Commissioner’s work sessions (January 19)
- Determine vendor selection recommendation (February 19)
- Commissioner meetings for any business commitments (March 19)
- Agreements with vendor completed (March 19/April 19)



No action was taken by the Board.

At approximately 4:49 P.M., Commissioner Bunn made a motion to adjourn, seconded by Commissioner Speed. The motion duly carried approval with all present voting “AYE.”

Sidney E. Dunston, Chair

Kristen G. King, Clerk to the Board