

QAC Broadband Advisory Committee Meeting

August 9, 2018 4pm - 5 pm | Cambio (Steve Kirby)
5pm - 6 pm | Bridgemaxx (Jim Connor)

Attendees

BAC/QAC

- Alison Davis
- Megan DelGaudio
- Joyce Jones
- Ben Schaffle
- Scott Seaborne
- Jon Seeman
- Dale Walls
- Jacob Wargotz
- Adam Weinstein

1. Cambio

About

- Uses Tier 1 providers from NYC (main offices in NY and NJ, with local office in Chestertown), has 3.6G shared license with FCC
- Say they are working at 10% capacity now - lots of room to grow and expand
- Financed privately through venture capital, investing in rural Maryland because we are “20 years behind,” and it needs to be done
- Claim to be one of first in America to install LTE over Wi-Fi (they have covered 80% of Kent County to date)
- Claims LTE over air is best technology available
- Frustrated with past (slow)/lack of responses from QAC and local municipalities (e.g., Queenstown)

Technology

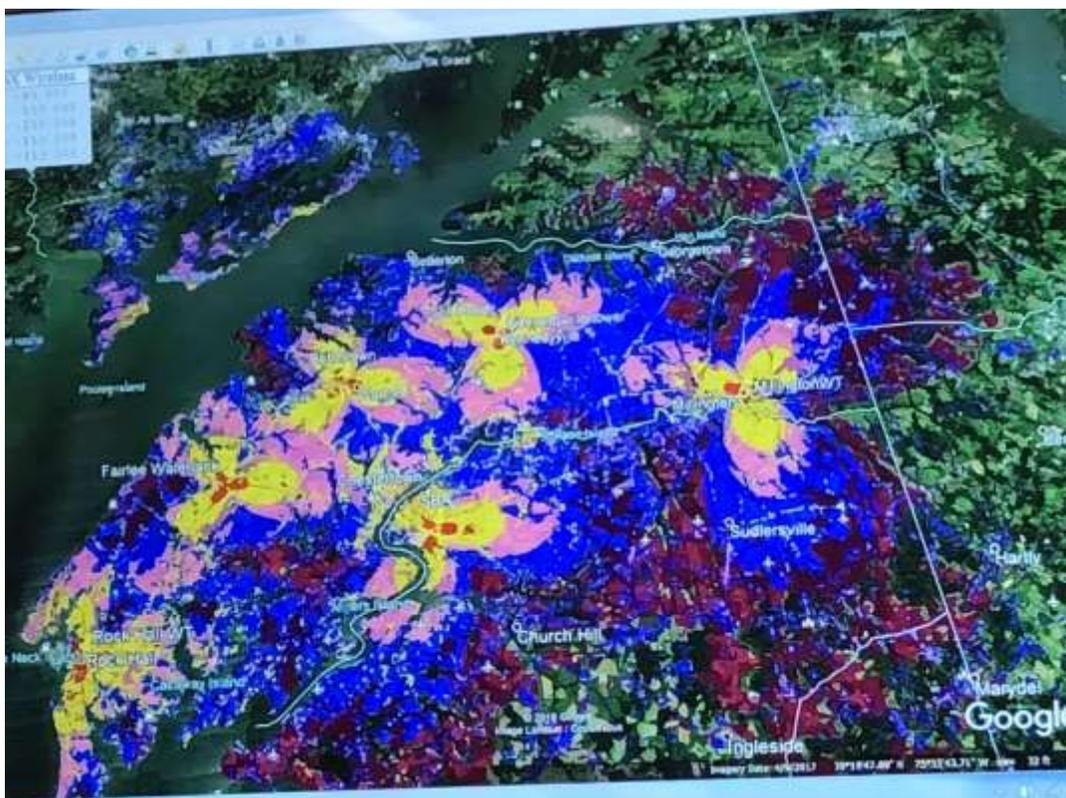
- Connects to existing fiber - Maryland Co-op (member) + ABB
 - There is ample existing fiber for any new towers
 - Integration between towers
 - Considers ABB cable quality low
- Don't require line of sight but cannot penetrate very high trees or very wooded areas; signal better near water
- Do not build their own towers, thus lease from available ones (however, recently they began building some through offshoot Cambio Tower); 110-150 feet threshold height for tower
- 14 X14 Antenna/sim card with Ethernet hand-off + router (more for bigger houses) Partner with TiVo and Roku for content
 - Launched Vonage voice partnership 2weeks ago

- Only allowed 1 Watt from FCC - they would prefer more to have more speed and distance - this may change in the future
- LTE over Wi-Fi: 3-7 miles - 12 miles
- For each tower, put 4 antennae with 65-degree span, resulting in overlap; costs \$50K to put equipment on each tower (substantially more than their competitors (\$10K)
- Running some fiber in Chestertown
 - Recently provided Wi-Fi to Chestertown at their own expense through an antenna atop Finishing Touch

Customer base/Opportunity

- Will install equipment anywhere they get access to towers
 - Biggest issue with QAC is lack of vertical assets (towers)
- They are mostly aware of where QAC residents are unserved
 - Considers wired neighborhoods lower priority (e.g. Northbrook)
- First step in any project is an RF assessment to determine what is needed to build (Cambio pays for this)
 - For any new tower installation investment: 10-year ROI - need ~300 customers to break even
- Service to customers: 70Mb max, average 30-50 Mb, offers variable [rates](#) with minimum of 10Mb down/2Mb up for \$59.95 (maximum current fee is \$250 because of need to share two towers)
- Planning next to install equipment on towers in Sudlersville, Millington, and Centreville if they get access (would also like to serve Queenstown)
- In Kent County, the new ATT contract will translate to more towers and more Cambio opportunity to do business there

Showed a current Google Earth/Cambio coverage map (purple = least coverage)



2. BRIDGEMAXX

About

- Wireless Internet provider - like DelMarva WiFi; signal cannot penetrate trees; requires smaller towers/monopoles (80 ft) compared to Cambio
- Consider themselves a valid competitor to Cambio that can fill many underserved QAC pockets
- Have been around longer than CAMBIO - have networks in 6 states; Claim to have good customer service and other staff
- Thinks that technology will continue to improve and they will be able to provide better and better service/speeds
- Current QAC footprint - access to towers - towns within county - Church Hill, north ~ Crumpton, Boons Farm (off 301), also "repeater" sites to get 4-15 more customers (these basically bounce the signal around)
- Don't need fiber to monopoles - wireless patches backhauled to Wye Mills, their main fiber location

Customer base/Opportunity

- Have similar issues as relayed by Cambio - some municipalities not eager to have their equipment on water towers
- Service to customers: Monthly rates from \$44.95 (3Mn down/1 Mb up) adds 10/20/25/30 Mb per each higher level and more \$
- Looking at trial areas to compete with ABB - to provide 100Mb for \$90/month - but they need whole neighborhood to subscribe for adequate ROI
- Starting TV access services soon

BAC ACTION ITEMS

- Consider multiple ways to gain access to/build new towers
- Work with state - quick easy access to state towers (Rt 301 near police station)?
- Pressure (visit with? Transcend personality conflicts?) municipalities such as Queenstown, Centreville, others for access to towers; possible that these towns do not realize the benefit to residents out of town center who are already wired/covered
- Talk to Planning/Zoning?
- Read and reply to Megan ~ State Rural Broadband task force: due in mid-September; asking counties what they need and what they would do with \$2 million investment

UPCOMING MEETINGS

8/16: Noovis

9/06: Kent County experience