

Summary & Report

LBA Evaluation of Loudoun County Broadband RFI for VATI FY2022

April 30, 2021

The Loudoun County Department of Economic Development, in a 2018 article, stated that “Access to broadband is crucial in the modern economy, helping to close the gaps in economic opportunity, educational achievement and health outcomes.”¹

Loudoun County has long been associated with the Internet, often being called the “home of the Internet”. Nearly 70% of the world’s Internet traffic passes through data centers located in Loudoun County. A recent study by Loudoun Broadband Alliance points out an alarming disparity among residents in Loudoun County, that approximately 8000 homes² in the county do not have access to reliable broadband Internet.

Recognizing that access to reliable broadband Internet is one of the most important social and economic equity issues of this generation, Governor Ralph Northam has committed the Commonwealth of Virginia to enable universal access to broadband Internet by 2028. As a result of this commitment the Commonwealth established the Virginia Telecommunications Initiative (VATI) grant program.

In March, 2021, Loudoun County issued a broadband RFI seeking interest from ISPs to partner with the county in an application for a FY2022 VATI grant. Loudoun County received responses from seven interested parties. Of those, two were eliminated by county staff due to failure to meet the goals stated in the RFI. The remaining five are from Lumos, All Points Broadband, T-Mobile, Zitel, and SWS Tech (SE Wireless).

LBA has evaluated the responses using criteria aligned with LBA’s mission, the criteria described in the county’s RFI, and the VATI guidelines³. The table below summarizes the proposals and LBA’s evaluation.

Based on LBA’s analysis we believe that the proposal from All Points Broadband has the strongest technical, logistical, and financial response. The All Points Broadband proposal is the only response that addresses truly universal coverage in Loudoun County which is heavily weighted in the Draft 2022 VATI Program Guidelines and Criteria⁴.

| | GOAL/METRIC | LUMOS | SWS TECH | ZITEL | ALL POINTS BROADBAND | T-MOBILE |
|---------------------------------------|---|--|--|--|---|---|
| UNIVERSALITY | 8200+ homes unserved | 440 | 2500 | 4154 | 8200 | Up to 10000 (no guarantee) |
| EQUAL AND AFFORDABLE BROADBAND | Currently served areas have access up to 1Gbps @\$80/mo | 100Mbps @\$49.99/mo 200Mbps @\$59.99/mo 500Mbps @\$74.99/mo 1Gbps @\$89.99/mo | “Average 25Mbps” “Up to 50Mbps” No quoted cost | 100Mbps @\$49.99/mo 1Gbps @\$89.99/mo | 50Mbps @\$79.99/mo 100Mbps 1Gbps Telephone; Commercial up to 10Gbps; Wholesale to other ISPs | 9Mbps up to 111Mbps No specific service levels. No quoted cost. |
| RELIABILITY | 99.95% uptime | Uncommitted FTTH has a history of being the most reliable. | Committed | Uncommitted. FTTH has a history of being the most reliable. | Uncommitted. FTTH has a history of being the most reliable. | Refused to Commit. |
| LONGEVITY | Expected lifetime of the proposal network | 30 years (LBA estimate) | 5 years (LBA estimate) | 30 years (LBA estimate) | 30+ years | 5 years (LBA Estimate) |
| PROJECT COST | n/a | TBD | \$84M (\$33,600/HHP) | \$4.6M (\$1,107/HHP) | \$63M (\$7,683/HHP) | \$9.5M (\$950/HHP) |
| MATCH PERCENTAGES | n/a | TBD after design | 20% from SWS | 24% from Zitel | 73% from APB; VATI max of 26.5%; County as low as 0% | At least 20% from T-Mobile |
| VATI STRENGTH | High point score on VATI guidelines | Weakest | Weak | Fair | Strongest | Fair |

¹ Loudoun County Leads Virginia in Broadband Use, 6 December 2018, <https://biz.loudoun.gov/2018/12/06/loudoun-county-leads-virginia-in-broadband-use/>

² Broadband Study Executive Summary, April 2021, Loudoun Broadband Alliance, <https://www.loudounbroadbandalliance.org/LBA042021BroadbandStudy.pdf>

³ See attached excerpt from FY2022 VATI Program Guidelines and Criteria

⁴ <https://www.dhcd.virginia.gov/sites/default/files/Docx/vati/vati-guidelines-criteria-draft2022.pdf>

LBA Financial Analysis of RFI Proposals

| | SWS TECH | LUMOS | APB (note 4) | ZITEL (note 3) | T-MOBILE |
|--|-----------------|--------------|---------------------|-----------------------|-----------------|
| <i>Project Cost (\$M)</i> | \$ 85.00 | not provided | \$ 63.00 | \$ 4.60 | \$ 9.50 |
| <i>Vendor's Match Commitment</i> | 20% | | 73.5% | 24% | 20% |
| <i>Vendor's Match Commitment (\$M)</i> | \$ 17.00 | | \$ 46.31 | \$ 1.10 | \$ 1.90 |
| <i>Maximum VATI Match (Up to 80%, \$19M Max)(\$M)</i> | \$ 19.00 | | \$ 16.70 | \$ 3.50 | \$ 7.60 |
| <i>Required Contribution from Loudoun County or Others (\$M) (note 1)</i> | \$ 49.00 | \$ - | \$ - | \$ - | \$ - |
| <i>Passings (Number of Addresses)</i> | 2500 | 440 | 8200 | 4154 | 3977 |
| <i>VATI Cost Per Passing (\$) (note 2)</i> | \$ 7,600.00 | | \$ 2,035.98 | \$ 841.60 | \$ 1,910.99 |
| <i>Universal Coverage based on LBA Research</i> | NO | NO | YES | NO | NO |

Note 1: While some proposals would not require a financial contribution from Loudoun County government, it is highly recommended that the county contribute a financial match that would lower the VATI Cost Per Passing to ensure a more competitive VATI application

Note 2: VATI uses this criteria to evaluate cost effectiveness, past awards have shown favorable VATI Cost per passing to be in the \$1,000-\$2,000 range.

Note 3: ZiTel's proposed coverage map overlaps the Comcast & Verizon coverage significantly, this is considered overbuilding an existing area and would not qualify for VATI funding. LBA's estimate shows a potential 2,000 addresses already served and would be considered overbuilt.

Note 4: APB's estimate of 8200 addresses is in close agreement with LBA's estimate of the number of unserved addresses in Loudoun County. LBA's assessment is that this proposal provides universal coverage in Loudoun County.

VATI Evaluation Criteria (300 total points)

Project Description and Need (Maximum of 85 points)

Describe the fundamentals of the project, including:

- Overview of the project area and how it was determined
- Internet speeds to be offered
- Network design
- How the project achieves universal broadband coverage in a locality, or how a project fits into a larger plan for universal broadband coverage. *Note: Applicants will only achieve maximum scoring in this section if the application reaches universal coverage in county or counties included in the application.*

Project Readiness (Maximum of 40 points)

Describe the capacity to successfully implement the project, including:

- Additional leverage to improve the project
- Marketing activities, including digital literacy efforts, to ensure a sufficient take rate
- Description of the project management plan, including key contacts, projected timeline, and history of managing similar projects/grants

Project Budget and Cost-Appropriateness (Maximum of 135 points)

Describe the project budget, including:

- Detailed project budget, including derivation of costs and documentation of cost estimates, delineated by each service area
- Information to calculate the Cost Benefit Index score
- Number of serviceable units passed and the breakdown of those passings
- Breakdown of matching funds and in-kind resources

Commonwealth Priorities (Maximum of 40 points)

Describe how the project would reflect priorities of the Commonwealth, including:

- Passings of significant impact
- Unique partnerships involved in the project
- Digital equity efforts
- Capacity for scalability

A Note on Universal Coverage from the 2022 VATI Program Guidelines and Criteria

Governor Northam has set a goal for universal broadband coverage throughout the Commonwealth by 2028. To that end, DHCD encourages applicants to ensure all projects either achieve, or are part of, a plan to achieve universal broadband for the locality or region. Localities can find resources for developing a universal broadband plan on the Commonwealth Connect website at www.commonwealthconnect.virginia.gov/broadband-toolkit. DHCD recognizes that due to the nature of wireless projects having an inherent potential of overlap it is strongly encouraged that applicants contact DHCD staff for assistance. Applicants are discouraged from submitting projects that focus on pockets of density while not including nearby unserved, less dense areas. This tactic, also known as cherry picking, hurts the economics of serving the remaining areas in your community and will ultimately make it more difficult and costly to get all Virginians access to broadband coverage.

References: FY2022 Virginia Telecommunications Initiative (VATI) Program Guidelines and Criteria.

Strategy Statement

Broadband Expansion in Loudoun County

April 30, 2021

“There will not be equity in Loudoun County unless all residents have equal access to reliable and affordable broadband Internet.”

- Kevin A. Noll, Loudoun Broadband Alliance Co-Founder

Loudoun Broadband Alliance exists to promote development of accessible, reliable, and affordable broadband Internet access in all of Loudoun County. LBA’s strategy for fulfilling this mission is to research broadband trends, issues, impacts, and solutions in Loudoun County, to educate the community, and to speak for the community.

In that effort, LBA has developed a set of objective metrics that can be used to measure progress as broadband solutions are evaluated and deployed. Those criteria are centered around LBA’s core values and mission statement and designed to ensure that all students, residents and businesses in Loudoun County have an equal opportunity to succeed and are not disadvantaged because they lack access to the most fundamental communications infrastructure in our world today.

Those criteria are:

1. **Universal Access:** Everyone that wants Internet access can get access in a timely fashion
2. **Reliability:** Once service is installed, it is available when it is needed.
3. **Affordability:** The cost to subscribe to Internet service is comparable for all residents and within reach for those that are less fortunate.
4. **Equal Broadband:** Everyone in the county should have access to comparable speeds.
5. **Longevity:** Future developments in broadband technology or policy should never cause any of the other criteria to not be met.

LBA calls on Loudoun County’s public officials, residents, and businesses to commit to:

*Loudoun County should set a goal that **every resident and business** in the county should have access to **reliable and affordable broadband Internet** by the **end of 2023**, and no resident should ever again lack access to this critical resource.*

Some might say that this is an unachievable goal, but examples abound across the Commonwealth and across the United States that prove otherwise. The resources and technology exist to meet this goal if the will is present.