

Broadband Strategies for Albemarle County

Executive Summary

In the spring of 2016, Albemarle County was awarded a Virginia Telecommunications Planning Initiative (VATPI) grant through the Virginia Department of Housing and Community Development (DHCD) to develop a community-based telecommunication plan including:

- A demand aggregation study demonstrating a market
- Infrastructure/services inventory and gap analysis
- Identification of connectivity solutions
- Needs assessment
- Broadband education

Public action is needed to remove barriers, provide incentives, and enable competition for adequate and reliable high speed broadband service to be available throughout the County. The FCC recently redefined “broadband” to be 25 Megabits download speed and 3 megabits upload speed (25/3). In most rural areas of the county, the existing DSL services are unable to deliver even the older FCC broadband definition of 10 Megabits down, 1 Megabit up (10/1).

“Rather than wait for incumbent ISPs to build the network your cities want and need, you can take control of your own broadband futures. Rather than thinking of yourselves as taxers and regulators, which has been the traditional role, you can think of yourselves as facilitators of the kind of services you’ve been begging the incumbents to provide for years.” Gigi Sohn, FCC Chief Counsel

This report from the Broadband Management Team represents several months of effort by a diverse group of Albemarle County stakeholders and interested parties, including representatives from the Board of Supervisors, K12 schools, higher education, public safety and first responders, senior County staff, the Planning Commission, and regional economic developers.

The economic future in Albemarle depends upon the availability of affordable high speed broadband services at bandwidths needed to conduct business, both now and in the future. Businesses large and small are already heavy users of the Internet. Their bandwidth needs continue to increase. Over the past twenty years, typical bandwidth use has **doubled** every two years. The current patchwork approach of incremental network improvements being pursued by the incumbent telephone and cable companies will leave Albemarle businesses, students and residents further and further behind other Virginia communities in terms of broadband infrastructure. Improved broadband affordability and accessibility will:

- Bring qualitative and quantitative improvements to Albemarle in public safety,
- Enable new telemedicine and telehealth services that can lower health costs and improve outcomes,
- Provide equality of access to K12 and higher education, students, and
- Create increased opportunities for job creation and business attraction and retention.

Nationally, Gigabit fiber service is the standard “minimum” when talking about economic development, business and jobs attraction, and retention. While Gigabit fiber service is available in limited areas of Charlottesville and a few small pockets in the urban areas of the county, Albemarle as a whole is at an economic disadvantage with the current offerings.

Incumbent providers in Albemarle County have demonstrated a greater interest in increasing service to their existing customer base than in expanding to unserved areas. Continuing to rely on the “status quo” approach is not working, for our residents, our students, our workforce and our employers.

Fixed point broadband wireless will be an important technology to keep the rural areas of Albemarle viable from both quality of life and economic development perspectives. However, the “build plan” for Albemarle cannot be a “one size for everyone.” Approaches in the rural areas and the development areas will be different.

The broadband build plan for Albemarle needs to consist of a set of strategies and initiatives that are tailored to fit the diverse geography, terrain, and population density. Consideration should be given to the following strategies:

1. **Establish goals:** In the rural parts of Albemarle, a reasonable near term goal is affordable access to a minimum of 10/1 service, with a long term goal of 25/3. These goals would guide the County’s initiatives to improve service. In the development areas, 25/3 is a reasonable near term goal, with a long term goal of widespread Gigabit fiber availability.
2. **Form public/private partnerships:** A key component to success is to create incentives for existing and new private sector providers to expand service availability and affordability, which will improve competition and pricing.
3. **Treat Broadband as a utility:** Given the importance of telecommunications for economic development, education and training, and personal access for social connection, data access, shopping, entertainment, and safety, broadband needs to be treated and managed as a utility and as essential infrastructure.
4. **Improve awareness/understanding of broadband challenges:** Create learning opportunities for leaders, residents and businesses to acquire a better understanding of the importance of improved broadband throughout Albemarle. Piedmont Virginia Community College would be a valuable resource in increase awareness of broadband.
5. **Identify broadband leadership:** Albemarle County could form its own Broadband Authority or join a regional Broadband Authority in collaboration with adjacent counties such as Augusta, Fluvanna, Greene, Buckingham, Louisa, Nelson, and Orange. An Authority will give Albemarle County the leadership needed to coordinate the numerous public and private entities that are making broadband investments and deployment decisions. The Authority will improve our ability to apply for and to obtain grant funding, and will simplify any regional efforts. Thomas Jefferson Planning District Commission would be an instrumental partner in this effort.
6. **Update the Tower Ordinance to help improve wireless:** The mountainous terrain and heavy tree cover in the County make it difficult for many properties in the rural areas to have adequate Line Of Sight (LOS) to towers where fixed point wireless services could be available. Allowing rural residents to erect 80’ wood utility poles by right would make wireless broadband more widely available.
7. **Improve access to tower space:** Strategically located towers with affordable access made available to WISPs (Wireless Internet Service Providers) would make significant improvements in broadband availability and cost, reducing the challenges of the mountainous terrain in the county.

With the submission of this report, the Broadband Management Team for the Virginia Telecommunications Planning Initiative (VATPI) grant has completed its assignment, with this plan as the final deliverable. Any changes to policies, ordinances or the Comprehensive Plan would follow the County’s standard processes and involve the Planning Commission. Future actions should continue to involve members of the VATPI Management Team to ensure that representatives are in place to speak for the public.