



## Rural Broadband in Virginia

Robust connections between rural America and its population centers and markets have allowed rural areas to prosper. Roads, canals, railroads, electrical lines, landline telephones and mobile phones served this purpose. In the information age, broadband connections are a key link. Some areas in Virginia lag behind. Nationally, “Virginia ranks 40th in the percentage of residents in proximity to access points with [barely serviceable] broadband speeds,” the state reports.<sup>1</sup>

The word “broadband” is shorthand for a collection of advanced wired and wireless technologies that transmit data at higher speeds. Access to broadband has become socially and economically essential, given the benefits it provides to businesses, governments, schools, medical facilities and communities. Communities in Virginia with robust internet connections have attracted companies, bringing in jobs and investment.

That is not true everywhere; though in urban Virginia, providing broadband has been a highly profitable business for big players in the telecommunications industry, like Verizon, AT&T, Comcast and Time Warner. But, just as it is expensive to deliver mail to far-flung populations, delivering broadband to the countryside is an expensive enterprise with limited economic return. Also, large telecom companies and early internet service providers (ISPs) like Comcast, make huge profits leasing their lines to smaller internet providers. It is against their interest to let communities create independent competing offerings.

So there is widely varying rural service in Virginia. The most common measurement for speed of data delivery is megabytes per second. The latest “State of the Internet” report from Akamai<sup>2</sup> measured the overall average download speed for the United States at 18.8 megabytes per second. In Virginia, towns around Washington D.C., college towns and the areas around military bases have even higher speeds: Blacksburg, home of Virginia Tech, has a blazing 41.8 mbps; Charlottesville, home of the University of Virginia, 33.3 mbps; McLean, in the Washington suburbs, 26.8 mbps; Dulles 26.6 mbps. In Wytheville, Bedford and Rocky Mount in rural Virginia, the speeds are about a quarter of Dulles’s — less than 7 mbps.

The Roanoke News reported<sup>3</sup>, that “the marketing firm Wordsprint moved out of Wytheville and into the Virginia Tech Corporate Research Center because Blacksburg had faster Internet speeds.”

### Federal Agencies Supporting and Regulating Broadband

The entrepreneurial Virginia communities who were early to expand their broadband capabilities were helped by the Commerce Department’s National Telecommunications and Information Administration. Its Broadband USA program supports local broadband expansion planning efforts and helps identify funding options. It provided more than \$189 million to Virginia universities, towns and cities.<sup>4</sup>

The Agriculture Department’s Rural Utilities Program offers a variety of loans and grants, including:

- Community Connect Grants
- Distance Learning & Telemedicine (VA applies for these grants.)
- Farm Bill Broadband Loans & Loan Guarantees

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<sup>1</sup> <http://vaperforms.virginia.gov/indicators/govtcitizens/internetaccess.php>

<sup>2</sup> <https://www.akamai.com/us/en/about/our-thinking/state-of-the-internet-report/global-state-of-the-internet-connectivity-reports.jsp>

<sup>3</sup> [http://www.roanoke.com/opinion/editorials/editorial-our-broadband-speeds-are-slower-than-latvia/article\\_260dd1bf-65ea-5068-8bf5-ab48041e4451.html](http://www.roanoke.com/opinion/editorials/editorial-our-broadband-speeds-are-slower-than-latvia/article_260dd1bf-65ea-5068-8bf5-ab48041e4451.html)

<sup>4</sup> <http://www2.ntia.doc.gov/virginia>



The Federal Communications Commission both supports and regulates broadband expansion, setting increasingly high goals for minimum speed. But for small towns it can cost as much as \$40,000 a mile or more to extend fiber optic lines to isolated residences. The first phase of the FCC's Connect America/High Cost Initiative introduced high-speed broadband to community anchor institutions, like schools. In April, the commission chairman, Ajit Pai, unveiled the Rural Broadband Auctions Task Force to speed expansion of robust internet connections. One auction<sup>5</sup> will offer about \$2 billion to bidders to connect unserved communities.

## Broadband Attitudes and Actions in Virginia

What is the state of rural Virginia's broadband life?

- \* 855,000 people without access to a wired connection with 25mbps download speeds.
- \* 888,000 people with access to only one wired provider.
- \* 358,000 people without any wired internet providers available.

In rural Virginia, 55% of homes can get high speed broadband. Gov. McAuliffe's Rural Online Survey shows more than 50% of rural residents don't like their current service or don't use it.<sup>6</sup> Also, many rural Virginians have limited fiscal resources to connect to broadband. Still, their local anchor institutions (e.g. hospitals, clinics, schools, public safety and libraries) require broadband,

Virginia's government has recognized this dilemma and encouraged local groups to<sup>7</sup>:

- Remove or reduce the cost barrier — some pay high prices for private broadband networks — to allow citizens to take advantage of broadband services.
- Help non-adopters understand how being online can benefit their lives.
- Make more services available online that can benefit non-adopters.
- Continue to improve availability of broadband services.

In 1985 the state formed the quasi-public Center for Innovative Technology (CIT) to spur entrepreneurial efforts in the commonwealth. Several communities have started locally-supported broadband providers. Some have had significant success, while one was such a dramatic failure it has provided fodder to the forces that oppose government-operated broadband.

The successes include Mid-Atlantic Broadband Communities Corp. (MBC), a nonprofit in southern Virginia's old tobacco counties. It was funded in part by the proceeds from the states' lawsuit against the tobacco industry. It connects 20 counties and 4 cities and has helped attract many companies to the region, as well as more than 1,100 jobs and \$2.1 billion of private sector investment. MBC was critical to securing the Microsoft data center project for southern Virginia, attracting more than \$1.7 billion in investment and 222 high-paying jobs. Last year, its net earnings were ~\$2.3M.<sup>8</sup>

Another successful effort is the Roanoke Valley Broadband Authority, a regional partnership started by local business leaders and four local municipalities, including the city of Salem, the city of Roanoke, Roanoke County and Botetourt County, to invest in the development of the region's first open-access fiber-optic internet network.

Opponents of government-supported broadband point to the failed network in Bristol. Its gross loss was \$130 million. A private provider's \$50 million acquisition for the service reduced the loss to \$80 million. Bristol had begun to deploy its service in 2002, but midstream, the state took it over from the city council. It was beset with fraudulent activity such as bid-rigging, procurement violations and

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<sup>5</sup> <https://www.fcc.gov/connect-america-fund-phase-ii-auction>

<sup>6</sup> <https://www.wired.virginia.gov/>

<sup>7</sup> <https://www.wired.virginia.gov/broadband/broadband-adoption>

<sup>8</sup> <http://www.mbc-va.com/wp-content/uploads/2017/01/2016-MBC-Annual-Report-for-Web.pdf>



failure to pay employee taxes.<sup>9</sup> It is now the poster child of Virginia's Republican free-marketeers, particularly Kathy Byron, the legislator who proposed a draconian measure that would have hogtied efforts to expand public networks.

## **Wrestling Over Virginia Broadband: Money, Ideology, and 2017's HB2018**

The Virginia legislature has considered a handful of broadband-related bills every year. They do so against a sharply-etched commercial landscape, with the industry lobby, the Virginia Cable Telecommunications Association, strongly defending its turf. The state has a Broadband Advisory Council whose private-property beliefs are echoed by many Republican delegates. Its members include both Ray LaMura, president of the trade group, and Kathy Byron, the Republican delegate who sponsored HB2018. Byron has received \$15,000 in donations from the trade group and more than \$140,000 from the telecommunications industry.<sup>10</sup>

Supporting Byron's bill, Mr. LaMura wrote: "The VCTA believes that the General Assembly should debate and establish a state policy to determine if local governments should be risking public dollars to build duplicative networks competing with the private sector that it also regulates [and] taxes..."

Advocates of municipally-supported broadband in rural areas came down strongly against the bill. The chairman of the Fauquier County Board of Supervisors said it "sets up an obstacle course of red tape that a municipality must go through if it wants to provide broadband." Among them: proving that subsidizing an existing commercial enterprise is not a valid option, eliminating almost all price advantages and giving private competitors proprietary customer information.<sup>11</sup>

Opposition came from both sides of the aisle, as was clear when the measure barely passed a House committee by an 11-9 vote, with several rural Republicans opposed. The version approved by the House, while toned down from the original, still had provisions that rural legislators of both parties found unacceptable. The measure was repeatedly amended to cut away the obstacles to broadband controlled by local governments. In the end, its original purpose almost completely destroyed, it passed the Senate and was signed by the governor.

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<sup>9</sup> <http://www.nyls.edu/advanced-communications-law-and-policy-institute/wp-content/uploads/sites/169/2013/08/ACLP-Bristol-Case-Study-Update-December-2016.pdf>

<sup>10</sup> [http://www.vpap.org/committees/123703/donors\\_sector\\_totals/](http://www.vpap.org/committees/123703/donors_sector_totals/)

<sup>11</sup> [http://www.fauquiernow.com/index.php/fauquier\\_news/entry/fauquier-incumbents-seek-to-limit-va.-broadband-competition-2017](http://www.fauquiernow.com/index.php/fauquier_news/entry/fauquier-incumbents-seek-to-limit-va.-broadband-competition-2017)