Over the past year, the eCorridors Community Broadband Access Map (CBAM) has been up and running, and collecting data through an interactive map to get an assessment of residential and small business broadband trends throughout the state of Virginia. Those who contributed data to the map by running the speed test and adding markers were encouraged to do so from a home or small business Internet connection.

To date, approximately 686 unique IP addresses that have run bandwidth speed tests from the CBAM application. Of those, 275 users from 23 states, and Sweden, Poland, Germany, Italy, Netherlands, as well as the United Kingdom have added their connection information to the map display.

Using data from the Virginia entries we can begin make some generalizations, such as:

Sorting the recorded data by service type (residential, business, government etc) and state we can generalize:

- Virginia Residential Median Downstream Speed = 2.712 mbps
- *Speedmatters.org reports the median download speed in Virginia was: 2.394 mbps
- Virginia Residential Median Upstream Speed = 466.235 kbps
- *Speedmatters.org reports the median upload speed in Virginia was: 560 kbps

If You’re a Virginia Resident

Virginia’s Center for Innovative Technology (CIT) wants to know more about broadband deployment in Virginia and where access to broadband services and the Internet remains a challenge. Help Virginia help you by filling out CIT’s broadband availability survey:

http://www.cit.org/broadband

… “better mapping of broadband availability, … would enable the public and private sectors to work together to target underserved areas.” Commissioner Jonathan Adelstein – July 24, 2007:

http://www.telecomweb.com/tnd/24380.html
(registration required)

http://www.ecorridors.vt.edu/maps/broadbandmap.php

*http://www.speedmatters.org
The purpose of the Community Broadband Access Map (CBAM)

Historically and legitimately, service providers resist sharing proprietary information regarding the geographic location of their infrastructure and services.

- In part, because there is currently no reliable means of ascertaining local level information regarding the availability of broadband services, connection speeds, and pricing, Virginia Tech’s eCorridors Program has developed a ‘consumer driven’ approach to determining regional broadband service availability. The “Community Broadband Access Map” is driven by the voluntary contribution of connectivity information by broadband customers.

- As a research tool the purpose of this application is to gain deeper insight into the state of regional broadband availability, performance, and pricing.

Considerations for using the eCorridors CBAM bandwidth speed test:

- Citizen input creates data points which yield the ability to make generalizations.

- Markers are only as accurate as the user allows.

- Any single bandwidth speed test is not a fair assessment; speed test results vary with time of day, network congestion, location of the the client is and the location of the speed test server.

- Averages of multiple reported speeds for a given location are necessary to more accurately assess performance with providers’ advertised bandwidth capabilities.

Over time and with enough data points, localities can use the CBAM and its associated data in the following ways:

- In areas where the map reveals an abundance of high-speed connectivity, communities could use the map as a means to attract technology workers and employers of well as the potential for entrepreneurial growth of emerging network economy businesses.

- In areas where the map reveals a lack of high-speed connectivity, communities could use the map to justify the need for competitive service provision and/or the development of local broadband infrastructure.

- Service providers could use the map as a tool for locating new market areas for expansion or expeditionary marketing.

- Citizens could use the map as an input to personal location decisions, to identify workforce training opportunities, and distance education capabilities.

- To provide local oversight of franchiser’s advertised bandwidth compliance; an average of reported speeds should be close to providers advertised bandwidth capabilities.

”...Currently, a bevy of websites offer to test the download speed of consumers, but one site in particular has gone further to act as a compendium of broadband connectivity information. The eCorridors project at Virginia Tech developed an online broadband speed test that not only logs the user’s connection speed, but additional information entered by the user.”

Testimony Before the Federal Communications Commission: comments of the National Association of Telecommunications Officers and Advisors, ... in response to the notice of proposed rulemaking.