

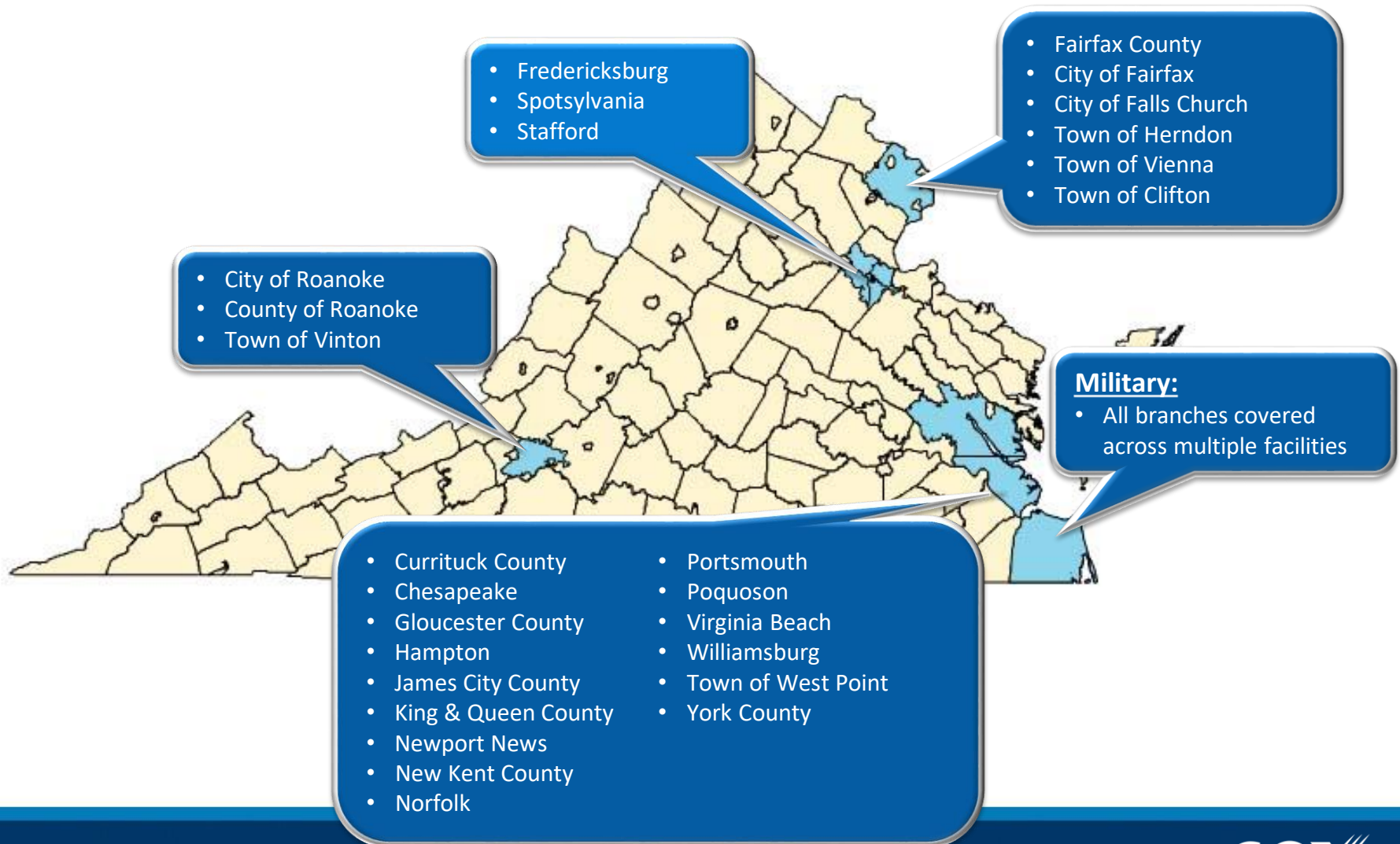
Toni Stubbs

VP of technology engineering and operations



- More than 20 years of experience in IT and engineering
- Responsible for VA network planning, engineering, and MTC operations
- Leads a team of 200 engineers and specialists for Cox in Virginia
- B.A. in Computer Science and Software Engineering
- MBA from the University of Michigan
- CTAM Graduate from Harvard Business School
- Advisory Board for NSU Dept. of Technology

40 Years of Service in Virginia



Residential and Commercial Services



DATA



VIDEO



SECURITY



VOICE

Cox Communications has more than a half century of experience as one of the country's leading providers of

Internet, TV, Security & Telephone

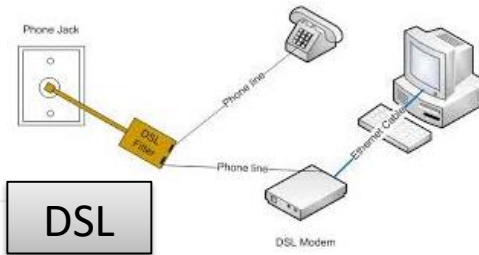
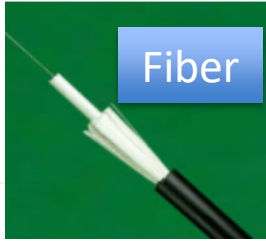
with

2,400 employees in Virginia

and an economic impact statewide in 2015

\$825+ million

What is Broadband?



How does it get there?

Broadband

From Wikipedia, the free

This article is about

In telecommunications and traffic types. The

In the context of Internet access, **broadband** is used to mean any high-speed Internet access that is always additional dial-up access.

access.

Look up *broadband* in Wiktionary, the free dictionary.

Satellite



Coax



Bandwidth Consumption Trends

“For the first time ever, average download speeds for broadband users exceeded 50 Mbps this year, according to Speedtest's latest report.”

The top speed of 54.97 Mbps was reached in June, up 42% from a year ago -- a milestone that makes it 1,000 times faster than dial up. For reference, Netflix recommends a 25 Mbps connection to stream ultra HD quality video.” CNN Money (tech) Aug. 4, 2016

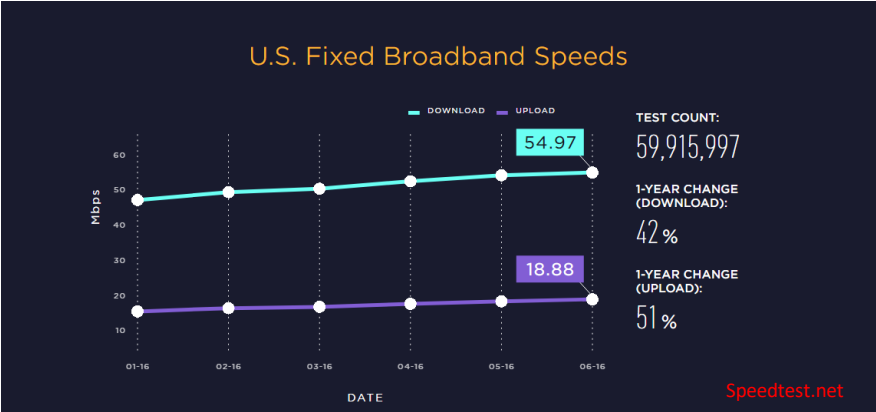
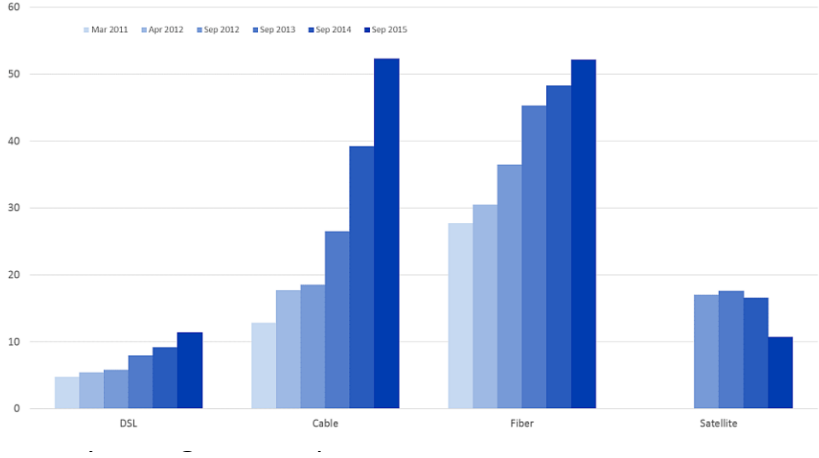


Chart 12.1: Median download speeds by technology, 2011 to 2015

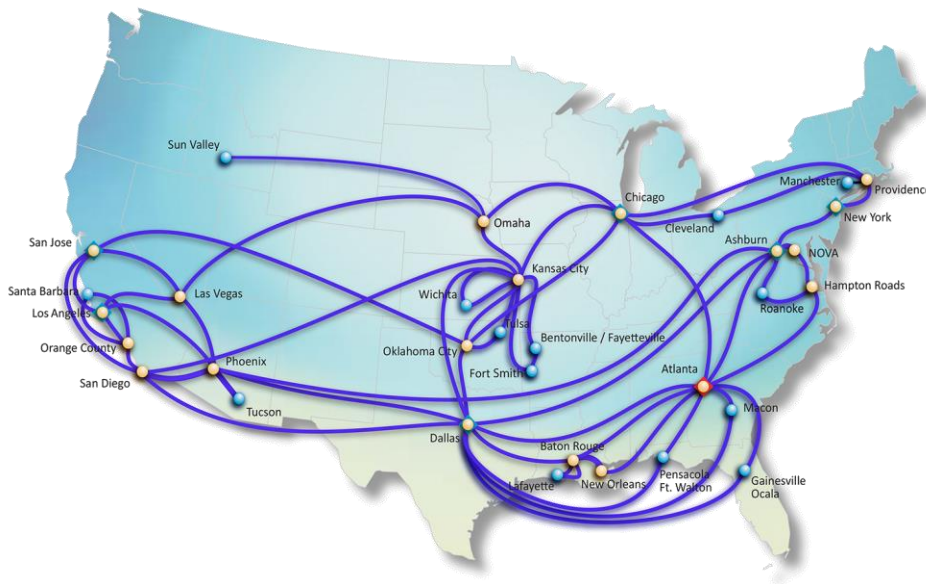


“The median speed across all consumers this year is 39 Mbps which represents a 22% increase to last year’s value of 32 Mbps, indicating that consumer speeds are continuing to increase.” FCC 2016 Measuring Broadband America Fixed Broadband Report Dec. 1, 2016

IN THE PAST DECADE, COX HAS INVESTED MORE THAN

\$1.6 BILLION

ON NETWORK UPGRADES IN VIRGINIA



Cox National Backbone

- More than \$942 million invested in Hampton Roads
- Fiber Rich HFC Network
 - 20,000 network miles
- Self-healing, scalable network
 - Ring in ring architecture
- 22 Hub sites (13 in HRD)
- 24/7 national monitoring of network operations and performance

Leading the Future Of Broadband



September 2015

Current Service

- **300 Mbps** available across footprint
- **10+ Gigabit** service available to commercial customers through extensive fiber network
- **Gigablast** launch in 2015 for new residential developments
- **1000%** speed increase over 15 years

Moving Forward

- **\$10 billion** additional network investment nationwide through 2020
- **DOCSIS 3.1** transition will enable residential Gigabit service over HFC network in our Virginia footprint
- Extending **fiber deeper** into neighborhoods

Collaboration in the Commonwealth

Internet Access

Gloucester County

- Partnered to apply for a Virginia Telecommunications Initiative (VATI) grant
- County awarded grant for \$193k
- Cox contributing \$146k
- Extending service to 101 homes and 6 businesses
- Project to be completed by year-end
- Exploring additional VATI grant opportunities

Connect2Compete

- Discounted home internet service launched in 2013
 - 10Mbps download speed
 - No deposit & no Contract
 - Free professional installation
 - WiFi Router
 - Eligible to families with children on free and reduced lunch or living in public housing
 - Partnering with government agencies, school districts and non-profits to reach more eligible families
 - More than 250k people have gained internet access through C2C nationwide