



Broadband in Virginia

Doug Wilson
Service Lead – Voice and Video Services
Service Management and Delivery

ITAC Meeting
March 13, 2017



Agenda

- Commonwealth Broadband Availability
- Statewide Broadband Contracts
- Executive Branch Broadband Options
- Forecast for Internet Capacity Demand



Constituent broadband availability

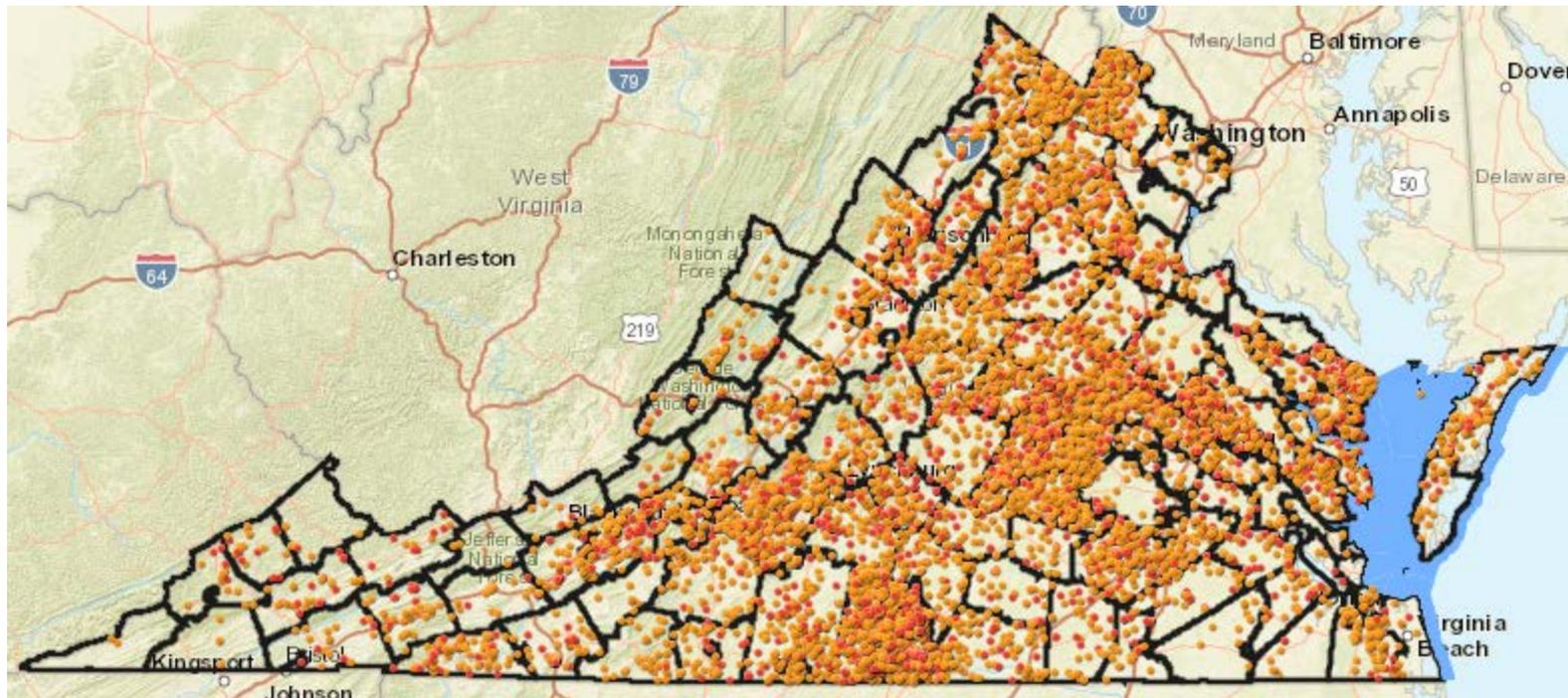




RUOnlineVA?

- Objective: Identify where broadband exists in Virginia
- April 2016: Campaign idea borne during secretary of technology session with Center for Innovative Technology, Virginia Municipal League, Virginia Association of Counties, Virginia Cable Telecommunications Association, providers and VITA
 - May 2016: Gov. Terry McAuliffe kicked off the campaign on at the signing of the Rural Broadband Bill (HB 912)
 - Summer 2016: Conducted study via an online survey site and a toll-free receptionist service

RUOnlineVA survey results





Broadband services on state contracts

- RFP 2015-17 awarded contracts to 19 suppliers for the following services:
 - Digital subscriber line
 - Cable modem
 - Fiber to the premises
 - Satellite
 - Private line
 - Ethernet point-to-point
 - Data rates: Tiers 1–16 (1 Mbps – 10 Gbps) download
- Find options via Zip Code search:

<http://vita2.virginia.gov/procurement/BroadBandZipSearch.cfm>



Broadband services – authorized use

- Executive branch agencies – Comprehensive Infrastructure Agreement (CIA)
 - Enterprise multiprotocol label switching – Northrop Grumman
 - Other services with approved exception
 - Ex. Enterprise remote connection service
- Everyone else – broadband contracts
 - Legislative and judicial branch agencies, localities, K-12 schools, etc.
 - Out-of-scope executive branch agencies
 - State colleges and universities
 - Virginia Department of Transportation smart traffic centers
 - Virginia Employment Commission and Department of Motor Vehicles call centers



Suppliers on statewide contracts

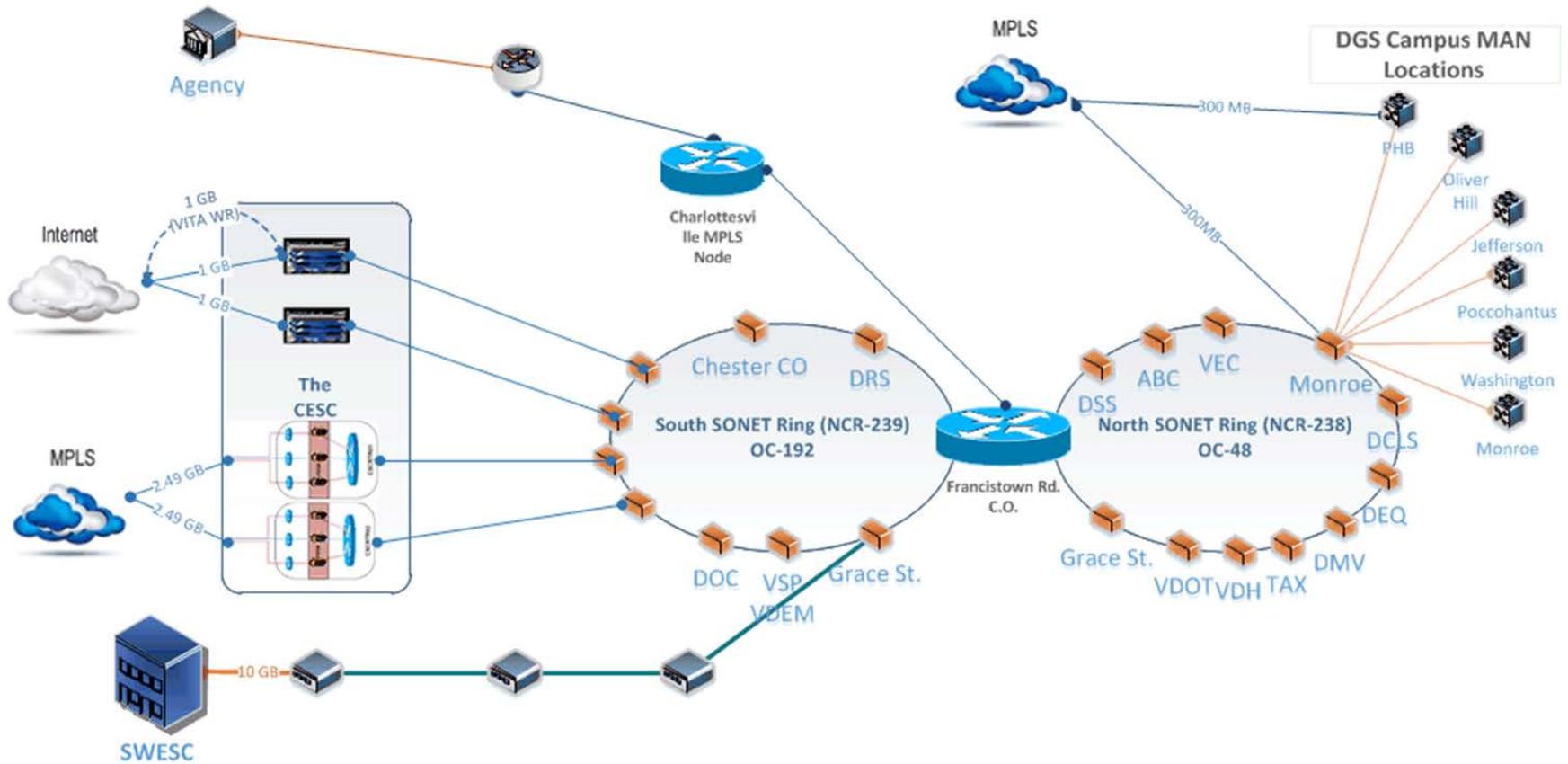
- AT&T (Wireless)
- All Points Broadband (WISP)
- Amtech
- Brightstar (Cable, Fiber, Private Line)
- CenturyLink (Wireline)
- Citizen's Telephone (Wireline)
- Comcast (Cable, Fiber)
- Cox Cable (Cable, Fiber)
- E&E (Satellite, DSL, Fiber)
- Eastern Shore Broadband Authority (WISP)
- GCR Telecommunications (Fiber)
- Granite Telecommunications
- Hughes Satellite
- Knight Sky (Satellite)
- Lighttower Fiber
- Lumos Networks (Fiber)
- Metrocast (Fiber)
- Rural Broadband Network Services (WISP)
- Shentel (Cable, Fiber)
- Sprint (Wireless)
- T-Mobile (Wireless)
- US Cellular (Wireless)
- Verizon Virginia (Wireline)
- Verizon Wireless (Wireless)
- Windstream (Fiber, Private Line)



Broadband considerations

- Security
- How will you use it?
- How much do you need?
- Service level agreements (SLAs)
- Costs – monthly, one-time, special construction

Network architecture – executive branch





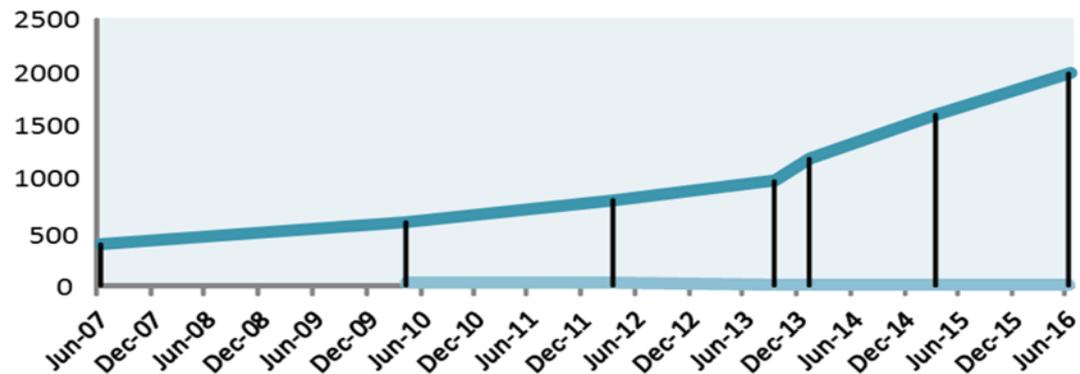
Commonwealth network benefits

- Robust security infrastructure
- Standardized service options
- SLAs
- Scalable across the enterprise
- Regular refresh requirements



Enterprise internet demand

Internet Growth Trend



	Jun-07	Apr-10	Mar-12	Sep-13	Jan-14	Mar-15	Jun-16
Internet Growth Trends Internet Circuit	400	600	800	1000	1200	1600	2000

Mbps



Internet capacity demand forecast

- Present and future requirements
 - Demand for increased internet bandwidth is normal trend
- What drives demand?
 - Supporting remote / teleworking work force
 - Citizen access to agency resources (information, e-commerce, etc.)
 - Communications with vendors and suppliers



Internet capacity demand forecast

- Cloud service impact
 - Software as a service proliferation
 - 25 exception requests since VITA announced service in December 2016
 - VITA exploring alternate cloud connectivity solutions
- Internet forecast
 - Present capacity - 2 GB
 - Adding third 1 GB circuit date TBD
 - Fourth 1 GB internet circuit needed by 2018



Questions?



Definitions

- Merriam Webster – Measurement of electronic communications ability of an device or system
- AT&T (1970s) – Transmission facility with a bandwidth greater than a voice channel
- FCC (1990s) - High-speed internet access that is always on and faster than the traditional dial-up access
- FCC (January 2015) – Changed baseline speeds
Minimum download - 4 Mbps to 25 Mbps
Minimum upload - 1 Mbps to 3 Mbps