How Outdated Regulation Could Handicap IP Network Design

Key Factors Determining Next Generation IP Network Investment

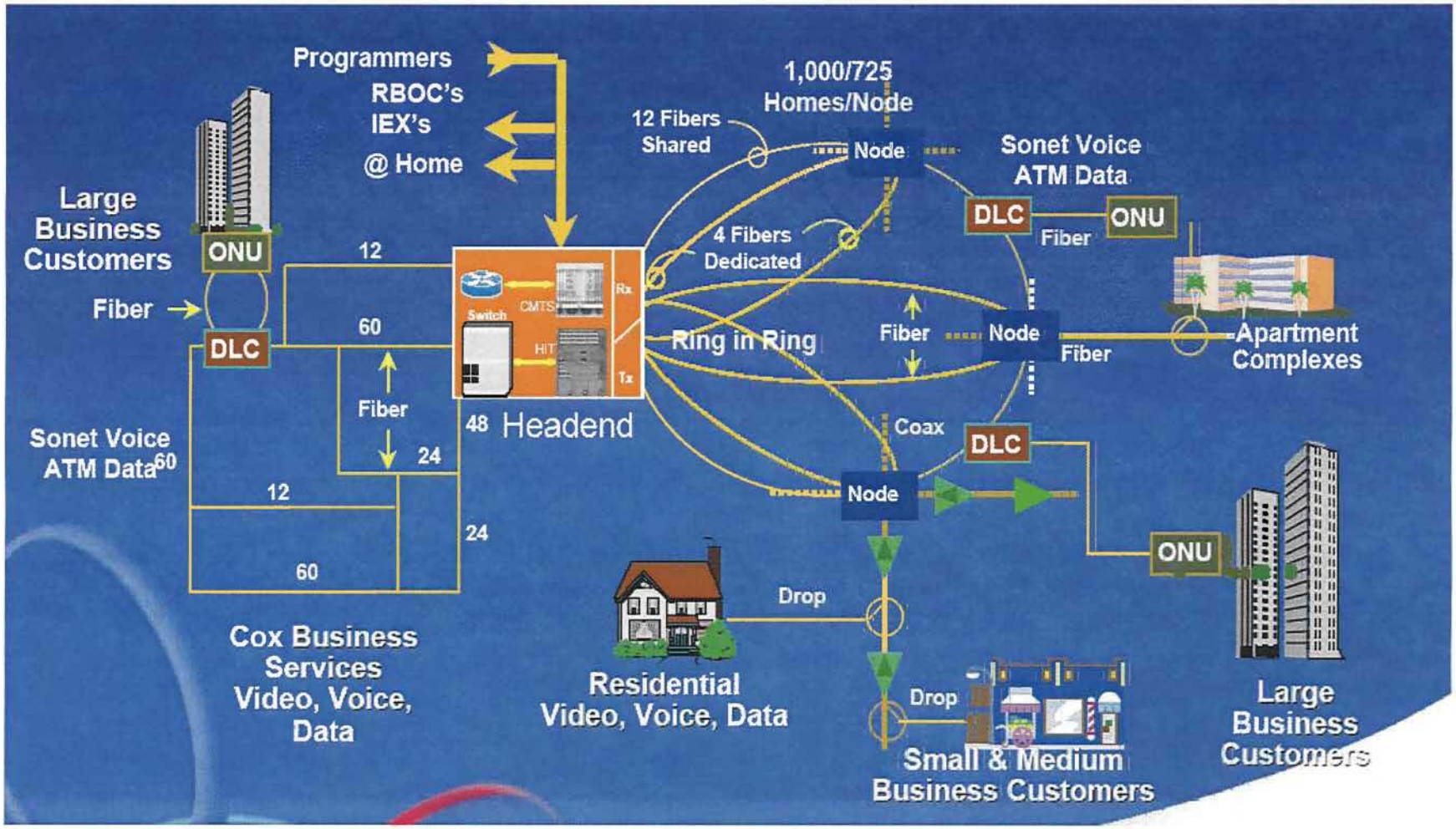
Industry Considerations

- Consumer Demand
- Technology Choices
- Network Efficiencies
- Capital Constraints
- Competitive Pressures

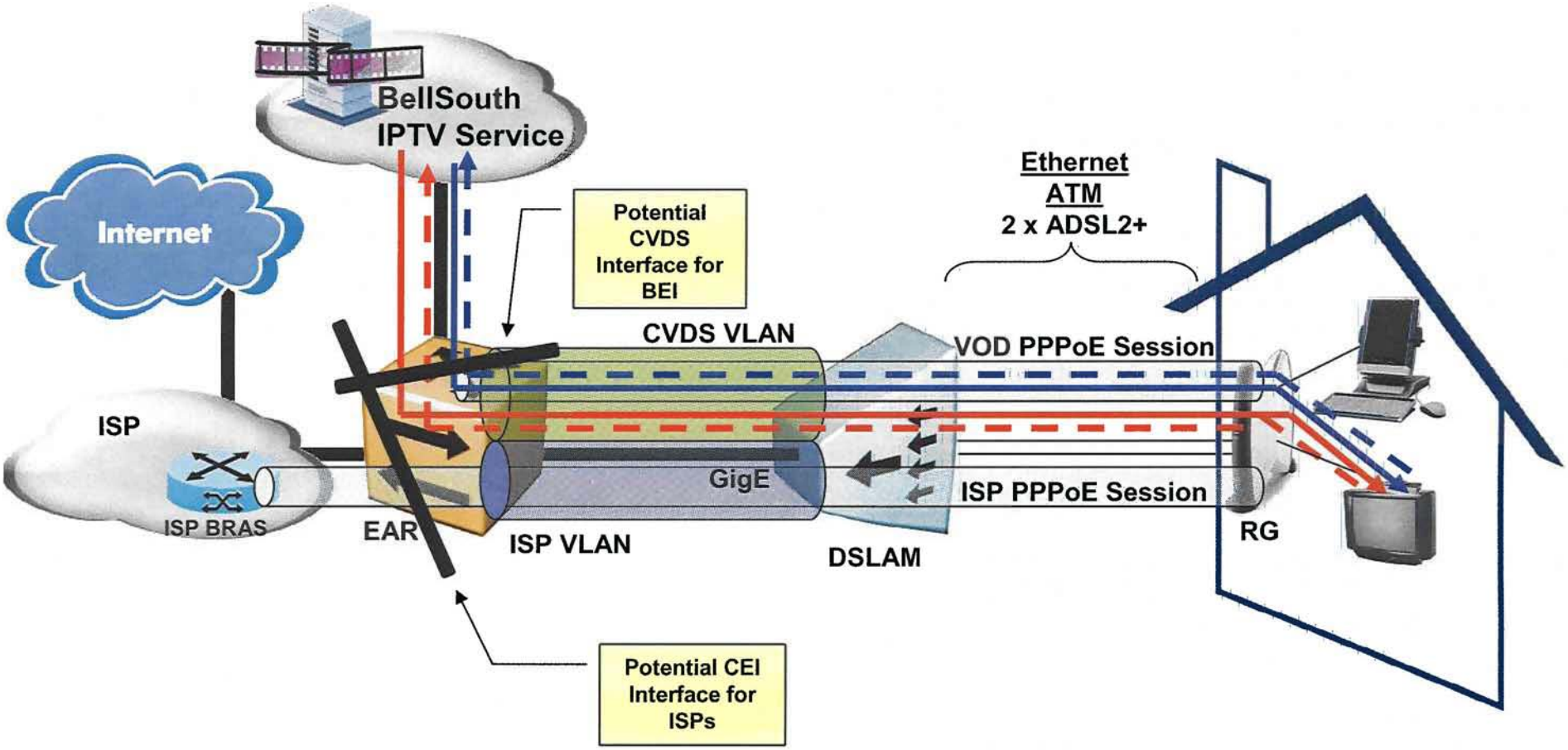
Additional Burden for BellSouth, SBC, Verizon and Qwest

- CI Compliance?
- Title VI Compliance?

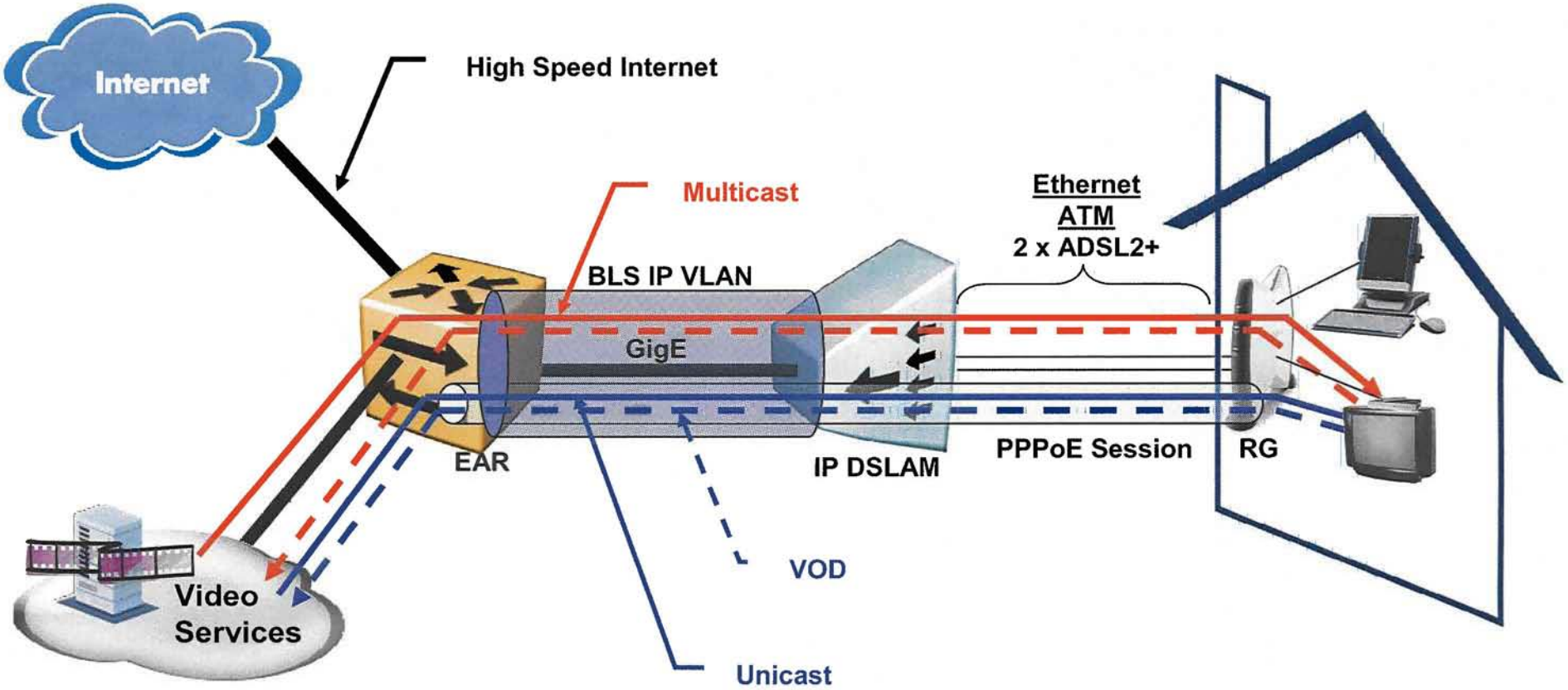
Cable Architecture



IP Platform Architecture with potential Title VI and CI Concerns

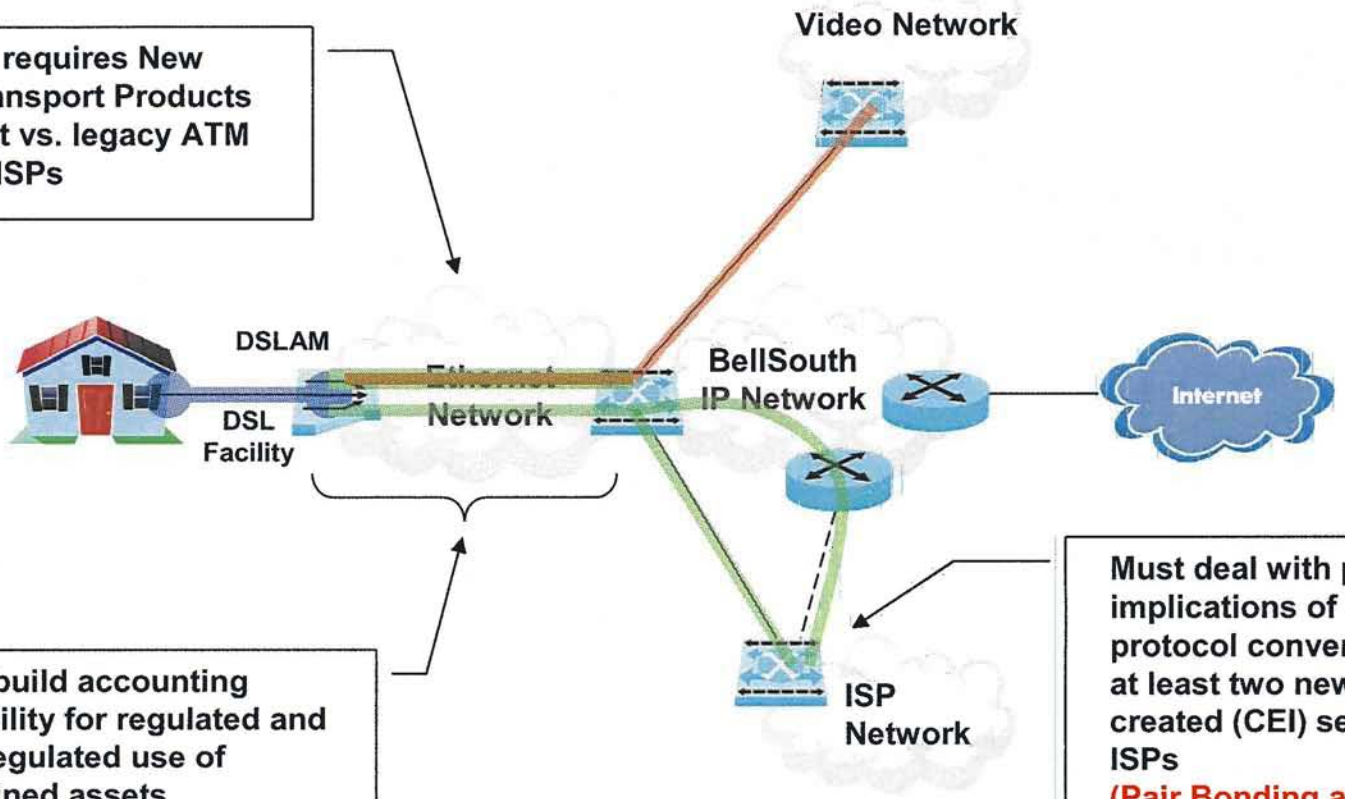


BellSouth's Desired IP Platform Architecture



CI Rules Would Force Inefficiencies In IP Platform Support For 3rd Party ISPs

Potentially requires New Tariffed Transport Products for Ethernet vs. legacy ATM handoff to ISPs



Must build accounting capability for regulated and non-regulated use of combined assets

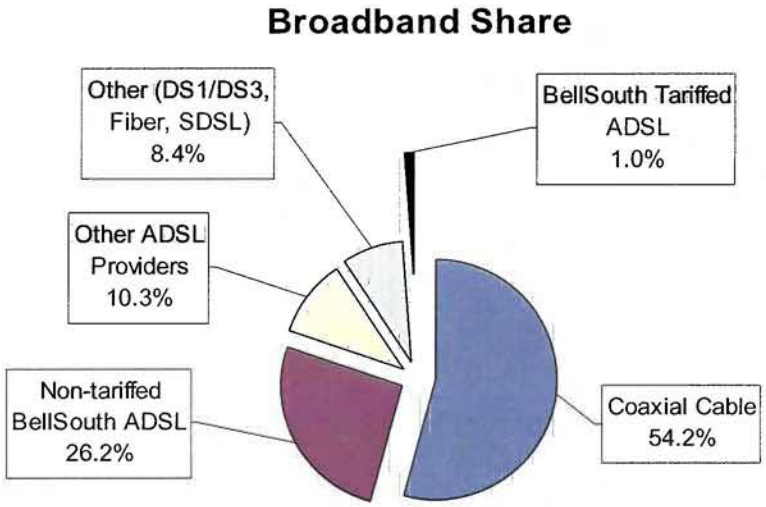
Must deal with potential implications of net protocol conversion and at least two new FCC created (CEI) services for ISPs
(Pair Bonding and COS)

Potential Design Handicaps If CI And Title VI Rules Apply

- **Compliant Architecture Would Not Reflect IP Efficiencies and Innovation Potential**
  - Develop Complete, Stand-Alone Services tariffed by BellSouth Telecommunications (to be purchased by BellSouth's own ISP and Entertainment Affiliates)
  - Broadcast line-up and VOD delivered over Affiliate-purchased logical access (CVDS – Cable Video Delivery Service)
- **Requires Breaking Apart Integrated IP Networks**
  - Available both to BLS Retail ISP and 3rd Party ISPs via newly created CI compliant CEI interfaces
- **Forces Inefficient And More Costly Serving Arrangement**
  - ISP Affiliate must perform ISP functions (AAA, addressing, admission control, etc.)
  - Functionally requires:
    - Twice as many PPP sessions (doubles cost for EAR/BRAS equipment)
    - Two (2) IP addresses are required for a single end-user (1 for Internet access, 1 for IPTV)
    - Three (3) total VLANs may be required for a single end-user
  - High Speed Internet Access and IPTV service conflicts will arise since IPTV control and Internet Bandwidth scheduling mechanisms are not integrated
- **Raises Costs By Forcing Vendors To Redesign Equipment**
  - EAR, DSLAM, & RG (increases cost for regulatory specific development)
  - Project delay – additional time required to develop interfaces and accounting mechanisms
  - Impacts pricing with key suppliers

CI Costs are paid by many, but only used by a few

- **From the December 2004 FCC Broadband Competition Report (June 2004 Data)**
  - + 6,389,582 Broadband Customers in BellSouth's nine-state region
  - + 3.5M (54.2%) were Cable Modem Customers
  - + 655k (10.3%) ADSL customers other than BellSouth (ICO's and DLECs)
  - + 534k (8.4%) other broadband services (DS1/DS3, SDSL, etc…)
  - + 1.7M (27.2%) were ADSL customers with BellSouth
  - + Only 65k (1%) are served by ISPs that continue to utilize the CI required federally tariffed xDSL service in BellSouth's nine state territory
    - The independent ISPs that continue to use the tariffed xDSL service are growing slower than the broadband market. The current 1% market share is significantly lower than their 4.2% market share only 12 months earlier.



Cost of Compliance is Increasing

- **Continued compliance with CI rules is becoming more expensive**
  - **Directly attributable costs that completely go away with CI relief include:**
    - Redundant enhanced and regulated customer support representatives (CSRs)
    - Redundant enhanced and regulated Network Operations Centers (NOCs)
    - Redundant ordering, ticketing, troubleshooting and technician dispatch operating support systems

	June-03	June-04
Annual CI Operating Costs	$28.5M	$24.5M
Wholesale DSL lines purchased by unaffiliated ISPs	193,747	64,961
Cost per wholesale DSL line purchased by unaffiliated ISPs*	$147.10	$377.15
Monthly cost per wholesale DSL line purchased by unaffiliated ISPs*	$12.26	$31.43
Average Monthly Revenue per line	$33	$33
Regulatory Cost as a percent of Monthly Revenue*	37.10%	**95.20%**

*** If you were to allocate all of the costs associated with CI compliance to only the wholesale DSL lines purchased by unaffiliated ISPs**

Handicapping Telco IP Platform Harms Consumers

- Delayed and less efficient IP Platform based competition will reduce High Speed Internet and Video Service options for end-users, therefore raising costs to consumers and network users
- Slowed network innovation and build out harms consumers and vendors
- Result – reduced broadband competition and innovation