### Securing Investment in Broadband Networks in Developing Countries & an Open Internet: the U.S. Model– Then and Now

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#### What we will Discuss Today

- A U.S. update on the Open Internet Rules
- Where are we now in the U.S.? And how did we get there?
- What next?





### Broadband Deployment in the U.S.

- 2000: 5% of U.S. homes had fixed Internet access of 200 kbps in 1 direction
- 2002: Cable Modem Declaratory Ruling
  - cable modem service business still "nascent" (DOCSIS
     3.0 and digital broadband networks still being built out)
  - Business relationships among cable operators and third party service offerings "evolving" (therefore, classified by FCC as an integrated offering of an "information servic"e)
  - Market conditions supported deregulatory approach.
  - Affirmed by Supreme Court in Brand X (2005).





# And NOW: "Another reason I can't stand Americans...."

- 74 % of U.S. homes have at least 2 fixed providers offering least 10Mbps/768 kbps and 88% have 2 fixed providers offering 3 Mbps. 2015 Broadband Report
- 98% of U.S. population is covered by 4G LTE. 93% of Americans have access to 3 mobile broadband providers.
- 73.6% of entire U.S. population age 13 and up have smart phones (as of Nov. 2014 (*Id.*) (90% by 2019 per Cisco).
- 2003: 36 million websites; 2015: 900 million!





#### 2015 Open Internet Order

- (1) Reclassified fixed and mobile "Broadband Internet Access Service" as a telecommunications service.
  - Mass market services. Excludes VPN, CDN,
     Internet backbone, enterprise services.
  - (2) **Forbearance** from applying certain Title II provisions, such as mandatory unbundling and tariffing; ("lighter" Title II regulation).





#### **Open Internet Order**

- (3) Adopted five (5) Open Internet Rules
  - Bright line rules of "no blocking", "no throttling" and "no paid prioritization".
  - "General Conduct Rule" prohibiting broadband providers from unreasonably interfering or disadvantaging end user access to lawful Internet content or apps OR edge providers' ability to make apps/content available to end users.
    - VAGUE standard. Will edge providers bring interconnection complaints? FCC will handle on case-by-case basis.

AND Enhanced Transparency Rule





### Effect of Reclassification on investment?

- FCC found: (a) Internet traffic growth has driven investment; (b) despite certain Title II regulation, a surge of investment after the 96 Act (i.e. wireline DSL regulated under Title II till 2005); (c) major telecom infrastructure providers committing to continue to invest even under Title II regulation.
- "Virtuous circle" theory Internet openness spurs investment and development by edge providers, leading to increased enduser demand, leading to increased broadband network investment.
- Netflix and YouTube account for 50% of peak Internet download





# FCC Majority: Burgeoning demand, not regulatory classification, drives investment.

- "Given this shifting regulatory treatment, it was not unreasonable for the Commission to conclude that broadband's particular classification was less important to investors than increased demand." US Telecom Ass'n v. FCC, 2016 WL 3251234 at \*17. (June 16, 2016)
- Commissioner Pai and DC Circuit dissent: a baitand-switch. Far more investment (\$300B) occurred 2005-2010 under "information service" classification.





# **Brand X: Enduser Perceptions of Broadband Decide Classification**

- Typical consumers focused on the offering of transmission for access to: (a) third party Internet content: FB, Netflix, YouTube, Twitter, MLB.TV, or (b) competing email services such as Gmail and Yahoo! Mail (portable)...often avoiding broadband provider add-on services.
- FCC also observed that broadband providers focus on advertising speed of transmission...even touting download speeds of Netflix and YouTube.
- Therefore, FCC found end users now view broadband as a "standalone offering" to transmit data of their own choosing...as a telecommunications service.





# Shades of Grey under the Open Internet Rules

- No rate regulation— U.S. consumers pay more for faster broadband speeds. And wireless carriers are raising prices in U.S. "Verizon raises prices as price wars ease" (WSJ July 7, 2016).
- Reasonable network management practices still allowed (i.e. throttling/blocking) if comply with Transparency Rule (i.e. data plan limits; limits during peak periods; IF content neutral)
- Paid peering agreements Netflix caching or CDN contracts with Comcast/Verizon/TWC/AT&T to store content close to endusers - paid prioritization? A "fast lane"? FCC admits it has little experience. A speculative harm? (Dissent)





# What about "Zero-Rated" Services?

- T-Mobile is adding Apple Music, ABC and Dish to its unlimited data Binge On service <a href="https://www.yahoo.com/news/t-mobile-adding-apple-music-abc-dish-unlimited-185546163.html?ref=gs">https://www.yahoo.com/news/t-mobile-adding-apple-music-abc-dish-unlimited-185546163.html?ref=gs</a> (July 26, 2016)(100 services, capped at SD quality). YouTube added as well.
- Lots of data-free video for consumers. Proconsumer? What about non-participating apps? What happens when complaint filed under General Conduct Standard?

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#### Winners & Losers in the U.S.

- Winners: Edge Providers Digital
  - Google profit up 24% 2Q16; \$21.3 Billion revenue (desktop/Android/iOS devices)
  - Facebook 2Q16 ad revenue up 63%; \$6.24B
- Losers: Broadband Providers
  - increased regulation as telecom carriers
  - Broadband privacy rules FCC leaning to likely require opt-in for marketing of all non-broadband related services. A level playing field?





#### "If you can't beat 'em, join 'em"

- "Verizon to Pay \$4.8 Billion for Yahoo" (WSJ, 7/25/16) – combined with AOL for online content and digital advertising to compete with Google and Facebook (control 50% of \$69B U.S. digital ad market; Yahoo + AOL 5.2%)
- More convergence ahead.





### The Caribbean Model v. U.S. Model

- Broadband infrastructure buildout still underway.
- Lack of ubiquitous or diverse fixed broadband
- Varied social services (education; healthcare) and public safety benefits from broadband investments.
- Much smaller addressable subscriber base (U.S. 395M wireless connections) and lower PCI to attract and support broadband infrastructure investment.
- Greater elasticity of consumer demand especially for the smartest phones/higher broadband speeds. (analog v. digital service)
- Need for some paid prioritization to offset infrastructure investment/operating costs may be necessary until greater levels of broadband penetration and broadband competition exist. (Netflix willing to invest in CDNs in U.S. near broadband interconnection points)





#### Takeaway from the U.S. Model?

 If much of the Caribbean is 10-15 years behind the U.S. in terms of broadband infrastructure investment, and broadband adoption, regulation of broadband (fixed and mobile) should be similar to U.S. model at time of the 2003 Cable Modem Order (a deregulated information service) to encourage broadband infrastructure investment.





#### **Thank You**

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