

Title II and Investment: THE FACTS

Everyone agrees we need to keep investing to build an even better, more accessible and higher functioning Internet for the 21st Century. But the hundreds of billions of dollars required have to come from somewhere, and no one seriously expects the government to shoulder this ongoing expense, as schools, transportation, utilities, and health care compete for scarce public resources. America needs the private sector to keep on investing in better, faster, more accessible broadband.



While our current policies have encouraged record levels of investment, some critics want to abandon this approach and reclassify Internet service as a common carrier, public utility service. They argue for such action despite a broad consensus that doing so would stifle the very investment that our nation's broadband infrastructure requires. These critics contend that investment would continue apace even if broadband were reclassified as a common carrier service, citing as support three false claims:

1. They claim investment flourished between 1997 and 2004 (notwithstanding a dip following the dot-com collapse) when incumbent phone companies were regulated as common carriers and the threat of common carrier regulation for all forms of Internet service and backbone was real;
2. They claim capital markets do not fear common carrier regulations; and
3. They claim that common carrier rules in Europe have not depressed investment.

Each of these arguments is misleading or false. They rely on cherry-picked and incomplete data and contain significant methodological flaws. Numerous independent experts have concluded that common carrier regulations will severely hurt investment, based on largely uncontested facts about Internet regulations over the last two decades. A decade ago, the FCC warned that classifying broadband service as a utility might lead ISPs to "forego plans" to invest.¹ Last year, the Obama White House endorsed the FCC's Title II-free *Open Internet Order* from 2010 as the type of light touch rules needed to both ensure net neutrality and preserve the virtuous cycle of innovation and investment.² And careful analysis of European and U.S. data conclusively shows that utility-style regulation negatively impacts the deployment of next-generation broadband networks.³

1. THE ARGUMENT THAT INVESTMENT SOARED FROM 1997-2004 NOTWITHSTANDING COMMON CARRIER REGULATION OF SOME INTERNET SERVICE PROVISION IS DEMONSTRABLY WRONG.

- Most high-speed Internet service providers during this time were not common carriers and their Internet services — retail or wholesale — were never subject to such rules. This was the case for cable broadband, mobile wireless data, and Internet backbone, among others.⁴
- Critics conflate pre-2005 network investment in services regulated by common carrier rules with the larger investments made in services never touched by those rules. (Even for companies regulated as common carriers, many capital investments before 2003 were made in areas of their business that were not regulated under these rules.) Failure to separate their different types of investment data distorts their conclusions and makes the analysis largely meaningless.⁵

- The high investment figures during this dot-com era include companies like Level 3 and WorldCom that spent tens of billions of dollars deploying unregulated "dark fiber" backbone and transit networks in anticipation of a boom in bandwidth consumption. These networks were not affiliated with local ISPs and the companies' investments included network builds outside the United States.
- Capital investments by backbone and transit companies plummeted from \$28 billion in 2000 to only \$3 billion in 2004, accounting for most of the difference between dot-com era capex and current investment levels.⁶
- Fiber costs then were much higher than they would be just a few years later. The price of a "strand mile" of fiber optic cable fell from \$5,000 in 1997 to as little as \$33 today; in other words, the raw material cost to purchase 20,000 strand miles of fiber was \$100 million in 1997, and today would cost only \$660,000. Thus, the 1997–2000 investment boom in fiber partly reflects the excessive costs of fiber during that time.
- The well-documented "fiber glut" — thousands of strand miles of unused, deployed fiber — that resulted from the dot-com era essentially "pre-funded" the build-out of fiber for the next dozen years. In short, companies deploying backbone networks in the late 1990s/early 2000s built too much capacity at the highest cost possible, resulting in artificially high levels of investment.
- The argument that unregulated providers expected that they would soon be classified as common carriers — and invested nonetheless — is simply at odds with the history. President Clinton's FCC Chairman Bill Kennard had already put down a marker in the late 1990s that government should take a "hands-off, deregulatory approach to the broadband market," particularly cable broadband. And certainly no one "expected" the FCC under the Bush Administration to extend common carrier regulations to other services.⁷

2. BROADBAND NETWORK INVESTMENT INCREASED IN THE POST-COMMON CARRIER ERA.

- The majority of investment in our *current* broadband infrastructure — both wired and wireless — occurred after then-FCC Chairman William Kennard in 1999 pledged "vigilant restraint" against regulating cable broadband service as a Title II service and then after the FCC and the courts unambiguously closed the door between 2004-2005 on Title II for all broadband services.⁸
- In each of the three years following the FCC's 2005 order removing the wholesale unbundling requirement from DSL services, telephone

1 Petition for Writ of Certiorari, U.S. Dept. of Justice and FCC, *FCC v. Brand X Internet Servs.*, No. 04-277 (Aug. 27, 2004).

2 White House, Office of Science and Technology Policy & The National Economic Council, "Four Years of Broadband Growth" (Jun. 2013), http://www.whitehouse.gov/sites/default/files/broadband_report_final.pdf.

3 Christopher Yoo, "U.S. v. European Broadband Deployment: What Do the Data Say?" (June 2014), <https://www.law.upenn.edu/live/files/3352-us-vs-european-broadband-deployment>.

4 See, Open Internet Reply Comments of USTelecom (Sept. 15, 2014), <http://apps.fcc.gov/ecfs/document/view?id=7522649614>; Open Internet Reply Comments of NCTA (Sept. 15, 2014), <https://www.ncta.com/sites/prod/files/NCTAReplyCommentsNN.pdf>.

5 Anna-Maria Kovacs, "Telecommunications competition: the infrastructure-investment race," http://internetinnovation.org/images/misc_content/study-telecommunications-competition-09072013.pdf; see also, Jonathan Lee, "Free Press' Mistaken (and Misleading) Theory on Title II and Investment (Pt. 1)," [TeleComSense.com](http://www.telecomsense.com/2014/09/free-press-mistaken-and-misle.php) (Sept. 2, 2014), <http://www.telecomsense.com/2014/09/free-press-mistaken-and-misle.php>.

6 NCTA Analysis of company reports.

7 Open Internet Reply Comments of NCTA (Sept. 15, 2014), <https://www.ncta.com/sites/prod/files/NCTAReplyCommentsNN.pdf>.

8 Internet Innovation Alliance, "IIA Confronts Myths Surrounding Net Neutrality" (Oct. 2, 2014), <http://www.internetinnovation.org/press-room/broadband-news-press-releases/ia-confronts-myths-surrounding-net-neutrality/>; see also, Letter from Chairman Kennard to Ken Fellman (August 10, 1999) <http://transition.fcc.gov/Speeches/Kennard/Statements/stwek952.html>.

company investment was 20% higher on average than it was in 2005.⁹ And investment in Verizon's FIOS and AT&T's U-Verse did not commence until after the FCC made clear in 2004 that common carriage rules would not apply to fiber-based broadband networks.

- According to a former FCC Chief Economist, broadband investment soared after these deregulatory policies were locked in place, climbing steadily for almost a decade since (aside from a brief dip during the financial crisis in 2009).¹⁰ A Georgetown University scholar has documented a similar increase.¹¹
- From 2006-2013, wired and wireless ISPs have invested \$555 billion to build and innovate America's broadband networks.¹²

3. THE ARGUMENT THAT NETWORK PROVIDERS HAVE COMPLETED THEIR NETWORK INVESTMENTS IS ALSO DEMONSTRABLY WRONG.

- The \$1.3 trillion in capital investment by ISPs — wired and wireless — since 1996 shows no signs whatsoever of slowing down. Last year, annual investment grew almost 10% to \$75 billion.¹³ Over the last two decades, investment in wired and wireless broadband networks has averaged \$70 billion per year.¹⁴ Other estimates show that wireline phone companies have invested \$21-28 billion, cable networks have invested \$10-15 billion and wireless carriers have invested \$19-26 billion each year over the last decade.¹⁵
- According to the Communications Workers of America (CWA) broadband providers were responsible for 84% of all investments made in the Internet ecosystem (network investment, apps, services and online content) between 2011 and 2013, and they will need to make significant new investments to keep up with market demand.¹⁶
- Experts predict continued and even accelerating growth in demand for broadband access and service.
 - A June 2014 Cisco forecast predicted that IP traffic will grow 21% a year from 2013-2018 (compounded annually) and that peak period ("busy hour") traffic will more than triple during this time. Overall, global Internet traffic in 2018 will be 64 times that of 2005.¹⁷
 - Cable broadband providers double the capacity of their broadband networks every 18-24 months. Critics that seek to dismiss this by claiming that investment in next-generation customer premises equipment (CPE) somehow doesn't count as "investment" simply don't understand the Internet business — or the critical role that new modems, gateways, and routers play in improving consumer service and speeds.¹⁸
- According to the independent Progressive Policy Institute (PPI), three of the top seven U.S. companies (rated by capital expenditure investments) have been broadband providers — Verizon, AT&T and Comcast, outpacing all non-financial industries. There is no reason to think that this breathtaking pace of investment will subside absent a dramatic change in regulation.¹⁹

- According to a 2013 White House report, broadband providers in the U.S. have laid more fiber optic cable since 2012 than in any period since 2000.²⁰ Since the FCC deregulated fiber-based broadband networks, telecom companies have deployed over 113 million miles of fiber optic cable.²¹

4. THERE IS STRONG EVIDENCE THAT MARKETS REACT NEGATIVELY TO THE THREAT OF COMMON CARRIER REGULATIONS.

- The last time the FCC considered this identical approach — common carrier plus extensive forbearance — America's four largest ISPs lost roughly \$18 billion in value in just two weeks.²² Here's what the market experts said at the time:
 - *Bank of America and Merrill Lynch*: "[T]he potential for lower investment [is] likely and the ramifications will be felt not just in telecom and cable, but potentially in the vendor sector as well."²³
 - *Tuna Amobi, Standard & Poor's*: The prospect of reclassification posed "potential long-term negative investment (and competitive) implications for major cable broadband providers."²⁴
 - *Craig Moffett, Bernstein Research*: Markets would "abhor" the uncertainty caused by Title II, which would have "a profoundly negative impact on capital investment."²⁵
 - *Jonathan Chaplin, Credit Suisse*: Common carrier rules "could discourage investment and cost jobs."²⁶

5. THERE IS STRONG EVIDENCE THAT COMMON CARRIER RULES IN EUROPE HURT INVESTMENT THERE.

- According to a University of Pennsylvania study, American broadband consumers enjoy twice the rate of investment as in Europe. The analysis concludes that common carrier regulations in Europe are the determining factor, finding a direct negative relationship between utility-style rules and deployment of high-speed networks.
- Overall, 82% of U.S. consumers can access next-generation broadband service (defined in the study as >25 Mbps) compared to just 54% of Europeans. And American ISPs invest an average \$562 per capita annually versus just \$244 in Europe.²⁷



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9 USTelecom, "Historical Wireline Provider Capex," <http://www.ustelecom.org/broadband-industry-stats/investment/historical-wireline-provider-capex>.

10 Leslie Marx, "Commissioner Pai's Principles," <http://sites.duke.edu/marx/2012/07/31/pai-principles/>.

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12 USTelecom, "Historical Broadband Provider Capex," <http://www.ustelecom.org/broadband-industry-stats/investment/historical-broadband-provider-capex>.

13 USTelecom, "Broadband Investment Surged in 2013" (Sept. 8, 2014), <http://www.ustelecom.org/blog/broadband-investment-surged-2013>.

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15 Anna-Maria Kovacs, "Telecommunications competition: the infrastructure-investment race," http://internetinnovation.org/images/misc_content/study-telecommunications-competition-09072013.pdf.

16 Open Internet Comments of Communications Workers of America, National Association for the Advancement of Colored People (July 15, 2014), http://files.cwa-union.org/national/CWA-NAACP_Open-Internet-Comments_7-15-2014.pdf.

17 Cisco Visual Networking Index, Forecasting and Methodology 2013-18. http://www.cisco.com/c/en/us/solutions/collateral/service-provider/ip-ngn-ip-next-generation-network/white_paper_c11-481360.html.

18 Open Internet Reply Comments of NCTA (Sept. 15, 2014), <https://www.ncta.com/sites/prod/files/NCTAReplyCommentsNN.pdf>.

19 Diana G. Carew and Michael Mandel, Progressive Policy Institute, "U.S. Investment Heroes of 2014: Investing at Home in a Connected World," <http://www.progressivepolicy.org/issues/economy/u-s-investment-heroes-2014-investing-home-connected-world/>.

20 White House, Office of Science and Technology Policy & The National Economic Council, "Four Years of Broadband Growth" (Jun. 2013), http://www.whitehouse.gov/sites/default/files/broadband_report_final.pdf.

21 Telecommunications Industry Association, "TIA's 2013 ICT Market Review and Forecast" (2013) (includes reported data and estimates for the period 2006-2014).

22 Open Internet Comments of NCTA (July 15, 2014), <https://www.ncta.com/sites/prod/files/NCTAComments-July152014.PDF>.

23 See, "Phoenix Center Policy Paper No. 40: The Broadband Credibility Gap" (Jun. 2010), <http://www.phoenix-center.org/pccpp/PCPP40Final.pdf> (quoting Bank of America/Merrill Lynch, "Internet Regulation Back on the Front Burner," (May 2010)).

24 William Spain, "FCC Chief Broaches New Approach on 'Net Neutrality,'" *MarketWatch* (May 6, 2010), <http://www.marketwatch.com/story/cable-shares-hit-by-fcc-move-on-net-neutrality-2010-05-06> (quoting Standard & Poor's analyst Tuna Amobi).

25 Craig Moffett, "Quick Take-U.S. Telecommunications," *U.S. Cable & Satellite Broadcasting: The FCC Goes Nuclear*, Bernstein Research (May 5, 2010).

26 Yu-Ting Wang & Howard Buskirk, "Reclassification Said to Pose Broad Risk to U.S. Economy," *Communications Daily* (June 14, 2010).

27 Internet Innovation Alliance, "IIA Confronts Myths Surrounding Net Neutrality" (Oct. 2, 2014), <http://www.internetinnovation.org/press-room/broadband-news-press-releases/ia-confronts-myths-surrounding-net-neutrality/>.