Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20554

In the Matter of Safeguarding and	**)**	
Securing the Open Internet	**)**	**WC Docket No. FCC 23-320**

Comments of the American Consumer Institute

I. Introduction and Summary

The American Consumer Institute hereby submits comments in response to the Federal Communications Commission ("FCC") Public Notice in the above-captioned proceeding. As background, the American Consumer Institute is a nonprofit 501c3 education and research organization. Its mission is to identify, analyze, and protect the interests of consumers in selected legislative and rulemaking proceedings in information technology, health care, insurance, and other matters.

In this proceeding, the FCC considers implementing Title II network ("net") neutrality regulations.[1] In our comments, we review these proposed regulations and their potential impact on investment, deployment, and access, with the goal of improving aggregate consumer welfare.

Overall, we believe the Commission's new rulemaking could have serious unintended consequences for consumers and the broadband marketplace. For one, stricter net neutrality regulations would lead to significantly higher broadband prices. Furthermore, there is a dearth of evidence showing the need for these rules, while a review of empirical studies finds that these regulations would reduce consumer welfare. In addition, after a thorough review of the market structure, conduct, and industry performance – including competition, investment, industry profits, and prices – we find no market failures to justify additional government actions.

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[1] "In the Matter of Safeguarding and Securing the Open Internet," Federal Communications Commission, Notice of Proposed Rulemaking, WC Docket No. 23-320, September 28, 2023, https://docs.fcc.gov/public/attachments/DOC-397309A1.pdf.

Based on these facts, we urge the FCC to provide rigorous supporting analysis and reasonable estimates of the cost and benefits of these regulations. We strongly believe the FCC should pause this proceeding until this work is completed for public comment.

II. Title II Regulations Would Unequivocally Raise Consumer Broadband Prices

To impose net neutrality regulations, the FCC is considering the reclassification of broadband services from an "information service" to a "telecommunications service." However, reclassifying broadband services as a regulated telecommunications service would come at a major cost to broadband consumers.[2]

Today, public utility property is generally taxed at a higher rate or under a broader base than other commercial property. Since reclassification would put broadband access under Title II regulation, many states are likely to use this new regulatory designation to generate additional property taxes. Moreover, states can do so without ever having to pursue the more challenging course of action through legislative change. For example, if Internet Service Providers (ISPs) become regulated by the FCC as a telecommunications service, current North Carolina law allows these companies to be taxed at the higher public utility service rate.[3]

Depending on the assessment methodology applied in each jurisdiction, these higher tax rates can be imposed on not only regulated telecommunications plants and equipment, but also on the value of intangible telecommunications property. For cable, wireless, and other ISP platforms, the inclusion of "intangible property" in the property tax base could become quite substantial. For instance, wireless providers are completely dependent on spectrum purchased at competitive FCC auctions. In states that consider intangible property to be taxable property, the taxation of broader telecommunications property could represent a major increase in the property taxes assessed to spectrum holdings of wireless broadband providers.

Another major risk is that state and local governments will not accurately discern what portion of a plant is solely used for internet connectivity. They might simply designate all the firm's property as "mixed use" and treat it as telecommunications property. Therefore, ISPs that also provide video services and other lines of business could have the tangible and intangible property for these other lines of business taxed at higher rates, exposing the entire business to these higher costs. The result would be a significant increase in property taxes that would discourage network investment and the deployment of innovative technologies. The tax change

[2] Much of this section comes from an article originally published on TechPolicyDaily. See, Steve Pociask, "Reclassifying Broadband Means Higher Prices," AEIdeas, American Enterprise Institute, November 21, 2014, https://www.aei.org/technology-and-innovation/telecommunications/reclassifying-broadband-means-higher-prices/.

[3] "Article 23: Public Service Companies," NC Gen Stat § 105-333 (2022), accessed December 5, 2023, https://www.ncleg.gov/EnactedLegislation/Statutes/PDF/ByArticle/Chapter_105/Article_23.pdf.

would affect wireless telecommunications, cable, and other ISPs immediately after reclassification occurs.

Reclassification would also expose ISPs to higher state and local receipts-based taxes, which, depending on the state, can apply to telecommunications services, regulated services, or public utility services in general. For example, Maryland statute Section 8-401 imposes a two percent gross receipts tax on telecommunications service providers, including competitive local exchange companies.[4] Mississippi Title 21, chapter 33-203 imposes a city utility tax of two percent on the gross revenue collected by all telephone, telegraph or other public utility services.[5] Essentially, wireline and wireless broadband service providers (or at least the internet connectivity that makes up the vast majority of broadband services) could be exposed to state and local taxes on certain broadband revenues. For ISPs, recouping these costs will likely mean passing them along to consumers in the form of higher prices on broadband services.

The average consumer already pays a large amount in taxes and fees on wireless service. As of mid-2023, state and local taxes accounted for 13.7 percent of a consumer's typical monthly bill, up from 12.8 percent in mid-2020.[6] Meanwhile, the Federal Universal Service Fund tax rate accounts for 10.8 percent. The combination of all taxes and fees, totaling 24.5 percent, would represent a new financial burden on wireless broadband consumers should reclassification take effect.[7]

Since broadband service demand is sensitive to changes in price, the impact on consumers from increases in taxes is likely to be significant, particularly for lower income and marginally connected consumers.[8] In suggesting a need to reclassify broadband services, the FCC cites the need to "protect" the already significant investments that have been made in "building out broadband Internet networks and making access more affordable" to consumers.[9] Yet, if reclassification leads to an increase in taxes and consumer prices, the resulting decrease in subscribers could exceed the number of subscribers without broadband access today. In

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[4] "Maryland Tax – General," § 8-4018-401, accessed December 5, 2023, https://law.justia.com/codes/maryland/2005/gtg/8-401.html.

[5] "Mississippi Code Title 21: Municipalities," § 21-33-203, accessed December 5, 2023, https://codes.findlaw.com/ms/title-21-municipalities/ms-code-sect-21-33-203/.

[6] Scott Mackey and Adam Hoffer, "Excise Taxes and Fees on Wireless Services Drop Slightly in 2023," Tax Foundation, November 2, 2023, Table I, p. 3, https://taxfoundation.org/wp-content/uploads/2023/11/Excise-Taxes-and-Fees-on-Wireless-Services-Drop-Slightly-in-2023.pdf.

[7] Steve Pociask, "A Perfect Store: Net Neutrality and the End of the Internet Tax Moratorium," Forbes, July 7, 2014, https://www.forbes.com/sites/realspin/2014/07/07/a-perfect-storm-net-neutrality-and-the-end-of-the-internet-tax-moratorium/?sh=f4d4f1577986.

[8] Shane M. Greenstein and Ryan C. McDevitt, "Evidence of a Modest Price Decline in Us Broadband Services," NBER Working Paper No. w16166, revised March 5, 2023, available at SSRN: https://ssrn.com/abstract=1636596.

[9] "Notice of Proposed Rulemaking," Federal Communications Commission, WC Docket No. 23-320, In the Matter of Safeguarding and Securing the Open Internet, October 19, 2023, pp. 2 and 30, https://docs.fcc.gov/public/attachments/FCC-23-83A1.pdf.

short, reclassification would cause significantly more harm to consumers than good and an unequivocal reduction in consumer welfare.

These costs are not trivial.

For the broader economy, demand suppression would reduce economic output, jobs, and employment earnings. In fact, higher state and local property taxes would directly discourage network investments. If the goal of Congress and the FCC is to improve broadband affordability, adoption, access, and network investment, as well as increase consumer welfare, reclassifying broadband services does the exact opposite. Indeed, if the FCC reclassifies broadband services, the FCC will have woefully failed to meet its goal to make broadband services more affordable for consumers and to end the digital divide.

III. Historical Evidence Finds Strict Net Neutrality Regulations Would Reduce Consumer Welfare

When net neutrality regulations were first proposed, a number of studies were released that investigated the potential impact on broadband costs, consumer welfare, and investments. For example, Hahn and Wallsten observed that banning price flexibility would lead to consumer welfare losses.[10] Litan and Singer estimated there would be billions of dollars of consumer welfare losses related to the potential of foreclosing enhanced quality of service offerings.[11]

Similarly, in a comprehensive study on this issue, Darby and Fuhr found that these regulations lead to higher consumer prices and reduce network investment.[12] The study estimated the present value of lost consumer welfare to be as much as $32 billion over 10 years, or about $285 per broadband household. Sidak evaluated and modified Darby's figures and re-estimated the welfare losses to be in the range of $3.44 to $7.74 billion per year.[13]

In one study, net neutrality regulations were found to reduce the value of broadband spectrum by 60 percent.[14] In another, Pociask found that restrictions on pricing would mean that consumers lose $69 billion in potential benefits over the next 10 years.[15] In their study on

[10] Robert Hahn and Scott Wallsten, "The Economics of Net Neutrality," AEI-Brookings Joint Center for Regulatory Studies, 2006.
[11] Robert E. Litan and Hal J. Singer, "Unintended Consequences of Net Neutrality Regulation," *Journal on Telecommunications and High Technology Law*, 2007.
[12] Larry F. Darby and Joseph P. Fuhr, Jr., "Consumer Welfare, Capital Formation and Net Neutrality: Paying for Next Generation Broadband and Networks," *Media Law and Policy*, Summer 2007, pp. 122-64.
[13] J. Gregory Sidak, "A Consumer Welfare Approach to Network Neutrality Regulation of the Internet," *Journal of Competition Law and Economics*, 2:3, pp. 349-474, 2006.
[14] Gerald Faulhaber and David Farber, "The Open Internet: Customer Centric Framework," International Journal of Communication, Vol. 4, 2010, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1574971.
[15] Steve Pociask, "Net Neutrality and the Effects on Consumers," The American Consumer Institute, May 9, 2007.

net neutrality, Nobel Laureate Gary Becker, along with coauthors Carlton and Sider, concluded that there was no "compelling rationale for regulation."[16]

As years have passed, net neutrality regulations have been imposed in various countries around the world, particularly in the EU, providing a new set of data for comparing the impact of these regulations on deployment, innovation, and consumer welfare. Specifically, one study analyzed data from 32 OECD countries and found the imposition of strict net neutrality regulations slowed down fiber investments.[17]

Another study found that, in the UK and EU, net neutrality slowed the transition to 5G, limited innovation, and lowered investment in broadband.[18] Essentially, according to this study, among the nations' leading the race to deploy 5G services, none had net neutrality regulations in place. In another study, net neutrality regulations were found to undermine broadband competition.[19]

After years of debate, the FCC has again opened an NPRM that would, if adopted, implement substantial internet regulations in place of a hands-off policy that appears to have nurtured investment, growth, and innovation.[20] Based on these empirical results, net neutrality regulations lead to reduced investment, innovation, competition, and consumer welfare. These findings should give the FCC pause about seeking to implement strict Title II regulations when there is no evidence of a problem that needs correcting.

IV. The NPRM is Premature: There Needs to Be a Quantification of the Problem to be Solved

Given the many studies showing the harm of stricter regulations, in this section, we ask the FCC to provide clear evidence of the need for these regulations, and any empirical evidence showing that the benefits of these regulations, if any, outweigh the costs.

The urgency to implement internet regulations appears to put FCC action ahead of a thorough analysis of the problem it seeks to fix. While internet regulations may have some benefits, what those exact benefits are have not been identified and certainly not quantified,

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[16] Gary S. Becker, Dennis W. Carlton, Hal S. Sider, "Net Neutrality and Consumer Welfare," *Journal of Competition Law & Economics*, Volume 6, Issue 3, September 2010, pp. 497–519, https://doi.org/10.1093/joclec/nhq016.

[17] Wolfgang Briglauer, Carlo Cambini, Klaus Gugler, and Volker Stoker, "Net neutrality and high-speed broadband networks: evidence from OECD countries," European Journal of Law and Economics, Vol. 55, 533–571 (2023), https://link.springer.com/article/10.1007/s10657-022-09754-5.

[18] "Net Neutrality regulation is failing UK consumers, innovators, and investors," Strand Consult, https://strandconsult.dk/net-neutrality-regulation-is-failing-uk-consumers-innovators-and-investors/.

[19] Roslyn Layton, "How Big Tech Uses Net Neutrality To Subvert Competition," Chicago Booth Stigler Center, May 18, 2023, https://www.promarket.org/2023/05/18/how-big-tech-uses-net-neutrality-to-subvert-competition/.

[20] Over a decade ago, the FCC policy was to avoid regulation of the Internet. Specifically, FCC Chairman Kennard said, "We recognized early on that a hands-off policy approach would foster a fully competitive marketplace." See "Remarks of William E. Kennard, Chairman Federal Communications Commission Before the World Economic Development Congress, September 23, 1999, at http://www.fcc.gov/Speeches/Kennard/spwek932.html.

except for general evocative terms of "openness," "neutrality," and "fair" – any of which can mean many different things to many different interests.

The exact benefits of these regulations are as elusive as the problem they intend to fix. There has certainly been a lack of quantitative analysis to understand the expected costs and benefits of imposing these internet regulations, and that is something that the FCC should have done before proposing this regulatory remedy. Our analysis finds the FCC's action to promulgate internet rules is premature and potentially costly to consumer welfare and investment.

V. Where is the Market Failure to Justify Government Intervention?

One historical theme of the net neutrality debate features the adequacy of relying substantially on competitive market forces versus government action. Debate over the extent and types of government intervention in broadband markets has traditionally started with consideration of the adequacy of markets and, more specifically, on different kinds and severity of market failures. Yet, the NPRM identifies no market failures.

While some argue that markets can be imperfect, so can government actions. Furthermore, the type of "failure" analysis typically used to justify regulatory intervention must be applied to government actions as well. After all, if government regulatory actions produce more harm than good, or if these actions produce more costs than imperfect markets, then society is made worse off by imposing these governmental remedies. As Professor Joseph Stiglitz, Nobel prize-winner and former Chairman of the President's Council of Economic Advisors, wrote on the reality of government failure, "in some cases, it is a matter of incompetence, in others of corruption, in still others it is a result of ideological commitments that preclude taking appropriate actions…Government programs can be subverted."[21]

Missing from the FCC's NPRM are specific problems with national security, safety, and privacy; what specifically needs to be done to deal with these problems, and why the FCC needs stricter regulations to solve them. In the absence of a detailed explanation of the specific problems and proposed solutions to these problems, the call for stricter net neutrality regulations appears to be an attempt by the FCC to have *carte blanche* control over the broadband industry**.**, As Professor Zerbe once described:

> *"...an analyst in search of externalities and market failure can find them anywhere, [and thereby provide] a universal justification for any sort of government intervention that he or she might want to promote."*[22]

Finding the potential for market failure is not difficult. It is everywhere. However, it is not sufficient to warrant government intervention, especially when, as is always the case, remedial

[21] Joseph E. Stiglitz, "Government and Markets: Toward a New Theory of Regulation," Government Failure vs. Market Failure: Principles of Regulation, Edward Balleisen and David Moss, Eds., The Tobin Project, (Forthcoming November 2009), p. 17, available online at: https://www.tobinproject.org/books-papers/government-markets.
[22] Richard O. Zerbe, Economic Efficiency in Law and Economics, Edward Elgar Publishing Limited, Northampton, MA, 2001, p. 170.

governmental actions themselves manifest externalities, create transactions costs, and other indicators of institutional inefficiencies and, yes, government failure.

Government intervention is not always justified by the presence of imperfect markets, especially when the interventions themselves can occasion significant costs. To assess the potential for market failures in the broadband industry, the next section will address the industry structure, conduct, and performance.

VI. The Structure, Conduct, and Performance

This section will show an analysis of industry prices, investment, profits, market concentration, competition, and choice. Our analysis finds no compelling evidence of market failure to justify the regulations being proposed. Furthermore, imposing regulations in anticipation of potential problems (referred to here as *ex ante* regulations) as proposed by the FCC, risks that consumers will forgo important economic benefits and pay higher prices. Thus, proposed net neutrality regulations would impose substantial costs owing to delay, uncertainty, unanticipated impacts, and other regulatory imperfections. The result will reduce network service quality, impair investment and innovation, and reduce aggregate consumer welfare.

In short, the case for the proposed regulations lacks factual and analytical support and is bereft of any specific consideration of economic welfare. In addition, the public record to date is woefully inadequate to support any evidence of market failure.

A. Market Structure Does Not Determine Conduct or Performance

Reclassifying broadband service providers under Title II regulation, would categorize the industry much like a public utility, exemplified as a monopoly earning supernormal profits. However, a reasonable assessment of the structure, conduct, and performance of the broadband network supply sector provides no substantial evidence of market failure. Moreover, it is certainly not enough to warrant the imposition of strict regulation of operator conduct, the results of which cannot be known in any detail or certainty but raise the specter of serious unanticipated consequences.

The literature on concentration and duopoly from different perspectives yields no evidence that market structure, *per se*, is a sufficient indicator of market failure. A review of various analytical perspectives on duopoly, for instance, turned up negligible support for regulation based on structure or market failure.[23] Based on the economic literature, there is no basis for concluding that concentrated markets cannot be workably or effectively competitive or that this warrants imposition of economic regulations, such as Title II.

[23] See Larry F. Darby, "To Regulate or Not to Regulate: Where Is the Broadband Market Failure?" published in The Consequences of Net Neutrality on Broadband Investment and Consumer Welfare: A Collection of Essays, Released by The American Consumer Institute, November 19, 2009, p. 72, available online at: http://www.theamericanconsumer.org/wp-content/uploads/2009/12/nn-and-market-failuare.pdf.

While market structure is one indicator of competition, its character in this market is not sufficient to warrant imposing government controls. Theories of oligopoly abound and continue to proliferate as economists explore outcomes from various hypothetical firm motives, information bases, assumptions about reaction patterns, time frames, cost structures, demand patterns, and more.[24] The fact is that there is no basis for concluding that regulation is warranted on the basis of casual characterizations of market structure.[25] As former regulator and economics professor Alfred Kahn wrote, "There is no consensus among economists about the likely sufficiency of competition under duopoly."

Given the indeterminacy of structure in judging the adequacy of markets in creating consumer welfare and establishing the need for government involvement, regulators should focus instead on indicators of both market conduct of those firms and their performance. Here the data is more plentiful, the conclusions less speculative, and the policy implications clearer cut.

The internet service market, like most network industries, can be characterized as having high fixed costs and economies of scale. This means that consumers are able to benefit from lower prices when the market has few firms. For this reason, market structure is of little importance, compared to market performance – high growth, falling prices, high investment, and comparatively lower profits.

B. <u>There is Effective Competition in the Market</u>

We are concerned about recent claims that the FCC requires Title II authority to prevent broadband providers from engaging in practices harmful to competition. Different variations of this claim continue to be erroneously repeated, such as remarks that competition is "a challenge in many places."[26] Such claims are without merit. Nowhere does the FCC provide concrete evidence that competition is lacking. While pointing to the declining number of households that still lack access to minimum broadband speeds,[27] the FCC periodically changes the definition of what constitutes broadband services.[28] The Commission then argues that

[24] The vast literature characterizing different behavior patterns in imperfectly competitive markets is reviewed by Carl Shapiro, "Theories of Oligopoly Behavior," *Handbook of Industrial Organization,* vol. 1, chapter 6, (R. Schmalensee and R. Willig, eds.), North Holland, 1989. Shapiro summarizes the uncertainty from these models and advises humility in their use to guide policy.

[25] Alfred E. Kahn, "Statement to the FTC Workshop on Broadband Connectivity and Competition Policy," February 13, 2007, p. 2.

[26] "Remarks of Chairwoman Jessica Rosenworcel," Federal Communications Commission, speech at the National Press Club, September 26, 2023, https://docs.fcc.gov/public/attachments/DOC-397257A1.pdf.

[27] Jessica Dine and Joe Kane, "The State of US Broadband in 2022: Reassessing the Whole Picture," Information Technology & Innovation Foundation, December 5, 2022, https://itif.org/publications/2022/12/05/state-of-us-broadband-in-2022-reassessing-the-whole-picture/.

[28] "Chairwoman Rosenworcel Proposes to Increase Minimum Broadband Speeds," Federal Communications Commission, July 15, 2022, https://www.fcc.gov/document/chairwoman-rosenworcel-proposes-increase-minimum-broadband-speeds.

establishing a national regulatory approach toward open internet access would allow it to better "promote broadband deployment and competition."[29]

However, the broadband market is already healthy and continues to grow quickly,[30] and the presence of intermodal rivals has produced competition through service differentiation. According to FCC's latest Internet Access Services Report, between December 2017 and December 2021, U.S. fixed and mobile connections increased by 59.1 million to 510 million.[31] This increase was made possible by 2,384 providers – 610 asymmetrical digital subscriber line providers, 87 symmetrical digital subscriber line providers, 213 other wireline providers (including power line providers), 352 cable modem providers, 1,505 fiber providers, 5 satellite providers, 1,359 fixed wireless providers, and 62 mobile wireless providers.[32]

The FCC estimates that as of June 2021, 86.79 percent of the U.S. population was covered by two or more providers offering fixed broadband speeds of at least 25 Mbps downstream and 3 Mbps upstream, with 60.7 percent of those having access to three or more.[33] While geographic disparities remain, nearly all Americans have access to multiple choices of providers and technology platforms ranging from wireless and fixed wireless to fiber or some combination of these. No longer are Americans limited to just cable modem and DSL services.

There is also a growing assortment of satellite internet companies to choose from like Project Kuiper and Starlink.[34] Each company is busy expanding its networks by launching dozens of new low-orbiting satellites so customers can access high-speed internet anywhere, some with

[29] "Notice of Proposed Rulemaking," Federal Communications Commission, WC Docket No. 23-320, In the Matter of Safeguarding and Securing the Open Internet, October 19, 2023, p. 55, https://docs.fcc.gov/public/attachments/FCC-23-83A1.pdf.
[30] "Internet Service Providers in the US – Number of Businesses," IBISWorld, updated: September 11, 2023, https://www.ibisworld.com/industry-statistics/number-of-businesses/internet-service-providers-united-states/#:~:text=There%20are%201%2C365%20Internet%20Service,increase%20of%203.7%25%20from%202022.
[31] "High-Speed Services for Internet Access: Status as of December 31, 2021," Federal Communications Commission, August 2023, Figure 1, https://docs.fcc.gov/public/attachments/DOC-395960A1.pdf.
[32] "High-Speed Services for Internet Access," Federal Communications Commission, 2023, Figure 32.
[33] "Fixed Broadband Deployment," Federal Communications Commission, accessed December 5, 2023, https://broadband477map.fcc.gov/#/area-summary?version=jun2021&type=nation&geoid=0&tech=acfw&speed=25_3&vlat=27.480205324799257&vlon=-41.52925368904516&vzoom=5.127403622197149.
[34] Brian Westover, "Starlink vs. HughesNet vs. Viasat: Which Satellite Internet Provider is Best?" PC Magazine, March 14, 2023, https://www.pcmag.com/news/starlink-vs-hughesnet-vs-viasat-which-satellite-internet-provider-is-best; and Christopher Mims, "Sorry, Elon! The Satellites of the Future Are Heading to Space Right Now," Wall Street Journal, October 13, 2023, https://www.wsj.com/business/telecom/spacex-satellite-internet-competitors-4a9369d.

the potential of gigabit speeds.[35] Satellite service providers now report offering internet access in 98.8 percent of U.S. census blocks.[36]

Data on broadband connections by technology is also revealing. For instance, in December 2009, wireless service providers, fiber providers, and other high-speed providers collectively accounted for just 44.3 percent of connections, with cable modem and 610 asymmetrical digital subscriber line providers accounting for the rest.[37] However, by December 2021, wireless service providers, fiber providers, and other high-seed providers collectively accounted for 81 percent of all connections, with cable modem and 610 asymmetrical digital subscriber line providers falling to just 19 percent.[38] In other words, wireless and other technologies have reduced industry concentration and increased intermodal competition. From December 2020 to December 2021 alone, nearly 20 million new broadband connections were added.[39] As 6G broadband services are built out by the end of the decade, consumers will have access to internet speeds currently only available on fiber networks.

The reality is that consumers have numerous options to choose from, and competition is likely to intensify in the coming years. Government intervention would only serve to chill private investment and undermine the current progress.

C. Internet Speeds Continue to Improve

For all the dire predictions about the loss of net neutrality and how it could mean the "end of the Internet as we know it," none have come to pass.[40] The internet remains a vibrant place where the speed of service continues to improve, prices continue to decline, and more consumers than ever have broadband access.

The internet is better and faster than ever, with significant progress made since 2017.[41] According to Ookla's Speedtest Global Index, the average fixed broadband download speeds in the U.S. have improved from 64.17 megabits per second (Mbps) in 2017[42] to 215.72 Mbps as of

[35] Mike Wall, "SpaceX launches 22 Starlink satellites to orbit from Florida (video)," Space.com, updated September 30, 2023, https://www.space.com/spacex-starlink-launch-group-6-19.
[36] "High-Speed Services for Internet Access," Federal Communications Commission, 2023, Figure 4.
[37] "High-Speed Services for Internet Access: Status as of December 31, 2009," Federal Communications Commission, September 2010, Chart 6, https://docs.fcc.gov/public/attachments/DOC-303405A1.pdf.
[38] "High-Speed Services for Internet Access," Federal Communications Commission, 2023, Figure 12.
[39] "High-Speed Services for Internet Access," Federal Communications Commission, 2023, Figure 1.
[40] Margaret Harding McGill, "How the loss of net neutrality could change the internet," Politico, December 14, 2017, https://www.politico.com/story/2017/12/14/how-net-neutrality-loss-change-internet-212671.
[41] Robby Soave, "4 Years After the FCC Repealed Net Neutrality, the Internet Is Better Than Ever," Reason, December 15, 2021, https://reason.com/2021/12/15/net-neutrality-fcc-repeal-internet-faster-better/.
[42] Rani Molla, "Fixed broadband speeds are getting faster – what's fastest in your city?" Vox, September 7, 2017, https://www.vox.com/2017/9/7/16264430/fastest-broadband-speeds-ookla-city-internet-service-provider.

October 2023.[43] Mobile broadband speeds have also improved dramatically, increasing over six-fold since 2017.[44] Today, nine out of ten American households have access to at least 100 Mbps download and 20 Mbps upload speeds.[45]

Also noteworthy is that America has managed to outpace Europe in this same area, despite differences in population density which should give Europe a cost advantage in its buildouts. While America enjoys fixed broadband download speeds of 215.72 Mbps and mobile download speeds of 103.69 Mbps,[46] Germany, Europe's most populous country, only enjoys fixed broadband download speeds of 87.94 Mbps and mobile download speeds of 64.74 Mbps.[47] In terms of global performance and fixed broadband, no European country ranks above America, and only a handful of small Scandinavian countries do for mobile broadband. All of this comes while Europe possesses the internet regulatory framework that the FCC is now trying to replicate.

D. Broadband Prices Are Decreasing

Broadband prices also continue to decline for American consumers. A recent US Telecom Broadband Pricing Index report found that between 2015 and 2023, U.S. weighted average broadband prices decreased by 37 percent, and U.S. weighted average broadband prices for the fastest speed tiers decreased by 38.6 percent.[48] Even more impressive, after accounting for inflation, the cost of these services dropped by 54.7 percent and 55.8 percent, respectively. In addition, the report found that, on a per megabit basis, real prices for these services have declined 80 percent over the last eight years, improving consumers' purchasing power and allowing their dollars to go even further.

These findings are consistent with other recent studies, such as a 2022 Oxford Economics report, which found that between 2018 and 2021, the price of U.S. entry-level plans for mobile broadband declined by 44 percent as a proportion of household disposable

[43] "United States Median Country Speeds October 2023," Ookla Speedtest Global Index, October 2023, https://www.speedtest.net/global-index/united-states#fixed.
[44] "The Title II Debate Was Settled When the Internet Didn't Break," Office of Commissioner Brendan Carr, October 18, 2023, https://docs.fcc.gov/public/attachments/DOC-397801A1.pdf.
[45] Joe Supan, "What is fiber availability like in your state?" allconnect, April 8, 2023, https://www.allconnect.com/blog/broadband-availability-by-type.
[46] "United States Median Country Speeds," 2023.
[47] "Germany Median Country Speeds October 2023," Ookla Speedtest Global Index, October 2023, https://www.speedtest.net/global-index/germany#fixed.
[48] Arthur Menko, "2023 Broadband Pricing Index," USTelecom, October 11, 2023, pp. 3-4, https://ustelecom.org/wp-content/uploads/2023/10/USTelecom-2023-BPI-Report-final.pdf.

income.[49] Likewise, a study published in May by BroadbandNow found that between 2016 and 2022, broadband prices declined across all major download speeds and technologies.[50]

With both broadband speeds continuing to improve and prices continuing to decline, it is little surprise that U.S. broadband coverage is also improving. In 2013, 17 percent of Americans still lacked access to fixed 25 Mbps/3 Mbps broadband services, including 53 percent of rural Americans.[51] Today, 98 percent of Americans have access to such services, including 91 percent of rural Americans.[52] This represents a noticeable jump over a relatively short time span, and coverage only continues to improve.

E. The Rate of Network Investment is Substantial

A critical aspect of ISP performance is the rate of capital formation. The primacy of that aspect of performance is the combined effect of the capital intensity of networks, the fact that costs decline with scale, the relatively high risk associated with investment, and the consensus view that a rapid buildout of networks is necessary as an element of national broadband policy.

In this regard, the performance of the sector has been exemplary. If fact, broadband coverage in the U.S. is now better than in Europe. At the end of 2022, 5G networks covered about 95 percent of the U.S. population[53] but only 73 percent of Europe.[54] The U.S. also holds a sizable lead over Europe in adoption, with 92 percent of American households having a broadband connection at any speed as opposed to just 77 percent of European homes.[55]

While there is room for improvement, the gap in coverage and adoption continues to narrow, facilitated by the continued buildout of network infrastructure and the creation of new

[49] Adam Gambarin and Hamilton Galloway, "Unpacking the cost of mobile broadband across countries," Oxford Economics, November 30, 2022, https://www.oxfordeconomics.com/wp-content/uploads/2022/11/CTIA-Oxford_Economics_Report-Cost_of_Mobile_Broadband.pdf?utm_source=Recent-release&utm_medium=Website&utm_campaign=EI-CTIA.

[50] Jason Shevik, "Broadband pricing Changes: 2016 to 2022," BroadbandNow, May 5, 2023, https://broadbandnow.com/internet/broadband-pricing-changes.

[51] "2015 Broadband Progress Report and Notice of Inquiry of Immediate Action to Accelerate Deployment," Federal Communications Commission, GN Docket No. 14-126, In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, January 29, 2015, p. 49, https://docs.fcc.gov/public/attachments/FCC-15-10A1.pdf.

[52] Jessica Dine and Joe Kane, "The State of US Broadband,"2022.

[53] Val Elbert, Enrique Duarte Melo, Chi Hung Chong, and Johnny Henderson, "Accelerating the 5G Economy the US," Boston Consulting Group, April 17, 2023, https://www.bcg.com/publications/2023/accelerating-the-5g-economy-in-the-us.

[54] Juan Pedro Tomas, "5G networks already cover 73% of European Population: Report," RCR Wireless News, February 2, 2023, https://www.rcrwireless.com/20230202/5g/5g-neteworks-already-cover-73-european-population-report.

[55] "US vs. EU Broadband Trends 2012-2020," USTelecom, April 2022, p. 7, https://www.ustelecom.org/wp-content/uploads/2022/04/USTelecom-US-EU-Broadband-Trends-2012-2020.pdf.

federal subsidy programs dedicated to providing financial assistance to low-income Americans struggling with affordability.

Since 1996, private communication service providers have invested over two trillion in U.S. networks, significantly expanding, and improving America's networks.[56] In addition, Congress has dedicated billions of dollars toward closing the digital divide, including spending $65 billion on broadband deployment and affordability,[57] with funding going to programs like the Affordability Connectivity Program, specifically designed to provide eligible households with affordable broadband access.[58]

This data makes it clear that broadband providers are making substantial network investments and risk a higher percentage of their discretionary cash flow from operations. By these measures, it would appear network investment is healthy and should not be discouraged by regulations that would undermine return on investments. We note that there is not a shred of evidence that the proposed regulations would encourage ISPs to invest more. Proponents should be obliged to provide data and analysis showing the effect on investment of the proposed net neutrality rules.

By all accounts, U.S. networks continue to improve. America's light-touch approach to internet regulation made that possible. Title II utility-style regulations of the internet would destroy these improvements and do nothing to deliver cost savings to consumers. The FCC should stop looking for a solution to a problem that does not exist and avoid creating another regulated monopoly.

F. The Industry Can Be Characterized as Having Comparatively Low Profits

By virtue of economies of scale, there is some degree of concentration at all levels of the internet market, including broadband networks, search, content, operating systems, electronic equipment manufacturers, and web applications. However, if significant amounts of market power were present and being exercised, it would show up in financial results.[59]

To test this hypothesis, data was taken from audited financial statements, and a comparison was made between the profitability of large ISPs and other public firms, as

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[56] Jonathan Spalter, "America's Broadband Providers Invested $86 B In Networks In 2021," USTelecom, July 18, 2022, https://www.ustelecom.org/2021-infrastructure-investment/.

[57] Matt Furlow, "The Infrastructure Bill Has $65 Billion for Broadband Deployment. Now What?" U.S. Chamber of Commerce, April 14, 2022, https://www.uschamber.com/infrastructure/the-infrastructure-bill-has-65-billion-for-broadband-deployment-now-what.

[58] "Affordable Connectivity Program," Federal Communications Commission, accessed November 20, 2023, https://www.fcc.gov/acp.

[59] One justification for regulation deals with the existence of market power. There are several potential indicators of market power drawn from measures of market structure (monopoly for example), market conduct (predatory pricing for example), and most importantly, abnormal returns on investment or high profit rates, most commonly the extent of price over cost. In other words, if market power exists, providers should be earning extraordinary profits and returns on their investments, and analysts should be able to observe these abnormally high returns in company financial documents.

measured by margins earned by the Standard and Poor's (S&P) 500 companies.[60] The table below shows that ISPs are generally less profitable than the average public firm. This is likely because capital expenditures can account for half of ISP cashflows, unlike most other firms.[61]

Comparison of Profitability for the Five Largest Major ISPs Versus the Standard and Poor's (S&P) 500

	ISPs	S&P-500
2020	5.7%	7.5%
2021	11.6%	10.6%
2022	5.0%	11.4%
2023 (Trailing 12 Months)[62]	7.3%	9.8%
Four-Year Average	7.4%	9.8%

The facts show that operators of broadband networks receive relatively modest returns compared to other major companies. Indeed, in each case, returns are below the average for firms in the S&P 500 index. A variety of conclusions might be adduced from the table, but one that clearly stands out is that the returns of network access providers do not reflect market power and do not provide the basis for concluding that market failure should be addressed by new regulations.

[60] Annual profitability data for the major ISPs – AT&T, Charter Communications, Comcast, T-Mobile, and Verizon Communications – were collected from Yahoo Finance (Plus), available at https://finance.yahoo.com/. Monthly average profitability data for the S&P 500 were collected from DQYDJ at https://dqydj.com/sp-500-profit-margin/. Profitability was measured as the percent net income of total revenue, and all data were downloaded on December 1, 2023.

[61] Financial analysis has shown that, adjusting for size, ISPs tend to earn less in profits, invest more, and create more jobs than their counterparts in other sectors. For example, see Larry F. Darby, Joseph P. Fuhr, and Steve Pociask, "The Internet Ecosystem: Employment Impact of National Broadband Policy," American Consumer Institute, January 28, 2010, see Table 1 at p. 9 and Chart 4 at p. 24.

[62] The four-year average includes 2020, 2021, 2022, and the trailing twelve months ending in October 2023. The three-year (2020 to 2022) average for ISP and S&P profitability was 7.5 percent and 9.9 percent, respectively.

G. No Apparent Market Failure

In summary, as consumer subscriptions and broadband speeds increase, the market is experiencing declining prices, substantial network investment, comparatively low profits, declining concentration, and increased consumer choice. In other words, industry performance provides no evidence of market failure that would justify a regulatory remedy. Therefore, regulations would not have any obvious market correcting benefits. Alternatively, as the next section discusses, the regulations themselves could create additional market costs to the detriment of consumer welfare.

A review of industry structure, conduct, and performance provides no evidence of a market failure that would justify regulation, including net neutrality regulation.[63] Proponents of regulation should look elsewhere.

VII. The Cost of Regulation

Earlier, we discussed the fact that classifying broadband services under Title II would expose broadband services and investment to significant state and local taxes. In addition, onerous regulations and compliance costs will likely reduce investment and network-driven innovation.

The Commission has not reasonably and substantively rationalized a public interest finding because it has not provided the evidence that the proposed rules would, on average, create consumer welfare by fostering innovation and investment here and in other sectors of the economy.

The Commission's Net Neutrality proposal clearly confirms a preference for putting in place restrictions borne of concern for, or fear of, anticompetitive or otherwise undesirable behavior (*ex ante* regulatory approach) over the alternative of responding with specific remedies, as it has frequently done in the past, to specific threats as they occur (an *ex post* approach). Both approaches may give rise to unintended costs and consequences. The *ex ante* approach proposed by the Commission will prohibit "bad" behavior, but in so doing, very likely create uncertainty about what is or is not prohibited, prevent "good" behavior, delay or attenuate beneficial market conduct that would otherwise occur, and deny consumers associated benefits.

Thus, there are substantial costs associated with lost innovation, creativity, and related market conduct. From a consumer perspective, these costs will likely take the form of lower service quality, fewer options, less private investment, higher prices, and slower innovation. While we are unable to estimate the cost of these foregone benefits from regulatory error, it is incumbent on the FCC to assess them carefully and, in particular, the extent to which they offset the equally unknown benefits of "net neutrality."

[63] These points are reviewed in Larry F. Darby, "To Regulate; or Not to Regulate: Where's the Market Failure?" in *The Consequences of Net Neutrality Regulations on Broadband Investment and Consumer Welfare: A Collection of Essays*, The American Consumer Institute Center for Citizen Research, November 19, 2009.

The *ex ante* nature of these regulations could do more harm than good. Net neutrality regulations could affect the ability of internet providers to differentiate broadband services and manage network congestion out of fear that they could engage in anticompetitive behaviors. Regarding net neutrality, this very sentiment was raised by the Federal Trade Commission some 16 years ago:

> *Policy makers should be wary of calls for network neutrality regulation simply because we do not know what the net effects of potential conduct by broadband providers will be on consumers, including, among other things, the prices that consumers may pay for Internet access, the quality of Internet access and other services that will be offered, and the choices of content and applications that may be available to consumers in the marketplace. Similarly, we do not know what net effects regulation to proscribe such conduct would have on consumers. This is the inherent difficulty in regulating based on concerns about conduct that has not occurred, especially in a dynamic marketplace.*[64]

While our system of jurisprudence stresses the presumption of innocence – "it is better that ten guilty persons escape than one innocent suffer" – these regulations permit errors on what may be good conduct upfront, instead of remedying bad conduct later. The result of these regulations will be that the FCC would provide an opportunity for "rent-seeking" behavior by firms and interest groups to delay or prevent market conduct that would increase consumer welfare.

VIII. The Industry Response to the Pandemic is a Reason Not to Regulate

To justify its proposal, the FCC has also routinely referenced how the COVID-19 pandemic fundamentally transformed how Americans think and feel about broadband connectivity.[65] However, the facts show that stricter European regulations undermined the ability of the industry to respond to the pandemic.[66]

While internet access has long played an important role in Americans' day-to-day lives, the FCC makes the case that the events of the pandemic dramatically "changed the importance of the Internet."[67] In Chairwoman Rosenworcel's words, broadband is no longer just a "nice-to-

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[64] "Broadband Connectivity Competition Policy," Report of the Staff of the Federal Trade Commission, June 2007, p. 161.
[65] "Proposing Reestablished Open Internet Protection," Federal Communications Commission, September 28, 2023, https://www.fcc.gov/document/proposing-reestablished-open-internet-protection.
[66] Johnny Kampis," American Broadband Regulators Should Learn Lessons from Europe: A Stronger regulatory Regine Harmed Access During the COVID-19 Pandemic," The American Spectator, October 18, 2023, https://spectator.org/american-broadband-regulators-should-learn-lessons-from-europe/.
[67] "Notice of Proposed Rulemaking," Federal Communications Commission, 2023, p. 9.

have" service or "luxury."[68] Instead, it is modern necessity that enables people to participate in the digital economy. This much is true.

Broadband has revolutionized how people live and work, delivering significant benefits ranging from expanded education and employment opportunities like online learning and job-seeker services to critical medical services like telehealth visits.[69] Broadband also allows people to communicate face-to-face over vast distances, shop online, and have meals directly delivered to their homes.

However, the FCC's argument that the COVID-19 pandemic has created a need for the government to treat broadband like other essential utilities like electricity and water is deeply flawed.

For starters, research has routinely found that internet service costs continue to decline, even after factoring in price changes caused by the pandemic. According to the U.S. Bureau of Labor Statistics, real U.S. broadband prices have fallen 11 percent since 2017.[70] In contrast, the price of government services like "electricity, water, and sewer" have continued to grow faster than the overall rate of inflation.

If the pandemic has taught us anything, it's that America's networks are remarkably resilient without government regulation. As Commissioner Brendan Carr correctly noted, the COVID-19 pandemic provided the perfect "stress test" to compare America's light-touch approach to internet regulation to Europe's heavy-handed centralized approach.[71] This is because during the height of the pandemic, when the world was forced to socially distance, people had little choice but to move their lives online. Unsurprisingly, this led to a dramatic increase in internet traffic that the U.S. and Europe responded to differently.[72]

Europe responded to the surge in internet traffic by asking companies like Netflix and YouTube to reduce the quality of their streaming services to "minimize stress" on the internet and prevent it from "collapsing under the strain of unprecedented usage."[73] America required no such degradation of services. The free and open nature of the U.S. networks, made

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[68] "Remarks of Chairwoman Jessica Rosenworcel," Federal Communications Commission, speech at the National Press Club, September 26, 2023, https://docs.fcc.gov/public/attachments/DOC-397257A1.pdf.

[69] Adie Tomer, Lara Fishbane, Angela Siefer, and Bill Callahan, "Digital prosperity: How broadband can deliver health and equity to all communities," Brookings, February 27, 2020, https://www.brookings.edu/articles/digital-prosperity-how-broadband-can-deliver-health-and-equity-to-all-communities/.

[70] "How Much Does Internet Cost in the United States?" The Internet & Television Association, accessed November 11, 2023, https://www.ncta.com/broadband-affordability.

[71] Brendan Carr, "U.S. Internet and Telecom Networks Showing Strength with COVID-19," Medium, March 27, 2020, https://medium.com/beat-the-virus/americas-broadband-networks-showing-strength-with-covid-19-f2a403c9700f.

[72] Stephen Shankland, "Broadband use surged more than 30% during pandemic, industry group says," CNET, April 7, 2021, https://www.cnet.com/tech/services-and-software/broadband-use-surged-more-than-30-during-pandemic-industry-group-says/.

[73] Hadas Gold, "Netflix and YouTube are slowing down in Europe to keep the internet from breaking," CNN Business, March 20, 2020, https://www.cnn.com/2020/03/19/tech/netflix-internet-overload-eu/index.html.

possible by an absence of utility-style regulations, encouraged ISPs to make significant investments in America's communications infrastructure,[74] which allowed America to weather the storm better.[75]

The truth is that, at a time when they wielded enormous power and could have easily restricted access to content for millions of Americans, broadband providers took no such action. Instead, American consumers enjoyed more freedom of choice and better network services than their European counterparts, with less government regulation.

IX. Openness, Blocking, Throttling Speeds, and Fast Lanes

It should be acknowledged that American Consumer Institute shares the FCC's belief that broadband internet access should be "fast, open, and fair" to all.[76] It plays a fundamental role in Americans' everyday lives, so it is only reasonable that broadband access should be readily available and affordable to everyone.

However, the internet is already all these things and more, and history tells us that moving to a stricter form of net neutrality regulation will harm network investment. In 2015, the FCC proposed an Open Internet Order (OIO)[77] that later reclassified broadband internet access as a telecommunications service under Title II of the Communications Act and mobile broadband internet access service as a commercial mobile service.[78]

At that time, the FCC claimed that this framework was needed to establish uniform "rules to protect and promote the open Internet" from ISPs, which it believed took advantage of consumers and edge providers.[79] Specifically, the FCC stated the rulemaking was needed to prohibit ISPs from blocking or throttling content and creating paid "fast lanes." The FCC provided reassurance that the OIO would empower the Commission to support more regulatory action while simultaneously safeguarding "broadband investment, innovation, and deployment."[80]

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[74] Rick Boucher, "Let's learn from Europe's broadband mistake," CIO, April 24, 2020, https://www.cio.com/article/193327/lets-learn-from-europes-broadband-mistake.html.
[75] Doug Brake, "Lessons From the Pandemic: Broadband Policy After COVID-19," Information Technology & Innovation Foundation, July 13, 2020, https://itif.org/publications/2020/07/13/lessons-pandemic-broadband-policy-after-covid-19/.
[76] "Notice of Proposed Rulemaking," Federal Communications Commission, 2023, pp. 2, 134, 135.
[77] "FCC Releases Open Internet Report," 2015.
[78] Kia Kokalitcheva, "The most important internet law was written in 1934," VentureBeat, November 13, 2014, https://venturebeat.com/mobile/the-most-important-internet-law-was-written-in-1934/.
[79] "Re: Final Rule, Federal Communications Commission, Protecting and Promoting the Open Internet (80 FR 19737, 19737-19850, April 13, 2015)," June 12, 2015.
[80] Ibid.

However, the OIO did none of these things and harmed private investment, slowing network innovation and infrastructure deployment in the process. Only after repealing OIO regulations in 2017 did investment rebound to prior levels.[81] Now, the FCC is back making the same claims about ISPs as in 2015, arguing that Title II regulations are needed to protect consumers. Yet there is no evidence that ISPs commit any of these abuses.

And while the FCC notes that their ban on paid prioritization arrangements allows them to "waive any rule in whole or in part, for good cause shown," in practice, this seems highly unlikely.[82] The conditions that ISPs must satisfy to receive a wavier are vague and arbitrary. For instance, ISPs must show that their practice provides "some significant public interest benefit and would not harm the open nature of the Internet." This is a tall order to ask of any ISP, regardless of size. The hard truth is that the FCC's NPRM provides ISPs little freedom to protest points of disagreement.

Moreover, as Commissioner Carr recently noted in his Dissenting Statement,[83] the D.C. Circuit already made it clear when it reviewed the Commission's 2015 Title II rules that ISPs are free to block website access, throttle applications, and filter content into fast and slow lanes, so long as they disclose such practices to potential customers.[84]

In a more recent court decision, the Second Circuit concluded that Section 230(c)2 of the Communications Decency Act permits ISPs to "restrict access to material" that they find "objectionable," giving them broad discretion to determine what type of content is acceptable.[85] In other words, even if ISPs were participating in the types of behavior that the Commission describes, Title II regulations would do nothing to stop that behavior, and Section 230 would stand in the way regardless.

X. Competitive Differentiation and Network Slicing

Another concern regarding the FCC's proposal to reestablish open internet regulations is that it may threaten customizable network functionality, specifically network slicing.

Network slicing is a virtual network architecture that "allows multiple virtual networks to be created on top of a common shared physical infrastructure."[86] Each network slice can have

[81] Patrick Brogan, "U.S. Broadband Investment Rebounded in 2017," USTelecom, October 18, 2018, p. 1, https://www.ustelecom.org/wp-content/uploads/2018/12/USTelecom-Research-Brief-Capex-2017.pdf.
[82] "Notice of Proposed Rulemaking," Federal Communications Commission, 2023, p. 77.
[83] "Dissenting Statement of Commissioner Brendan Carr," Federal Communication Commissioner, October 19, 2023, https://docs.fcc.gov/public/attachments/DOC-397827A3.pdf.
[84] U.S. Telecom Assoc. v. FCC, No. 15-1063, (D.C. Cir. 2017), p. 16.
[85] Domen v. Vimeo, Inc., No. 20-616 (2d Cir. 2021), p. 4.
[86] Sacha Kavanagh, "What is Network Slicing?" 5G.co.uk, November 17, 2022, https://5g.co.uk/guides/what-is-network-slicing/.

its own set of rules and performance characteristics, providing network operators greater control over resources. For instance, network slicing allows operators to create dedicated virtual networks with "functionality specific to the service or customer over a common network."[87] This allows for greater customization so that virtual networks can be tailored to the unique needs of customers and the growing assortment of network services they demand.

In addition, since each slice of the network acts as a separate physical network, there is no possibility of network interference. This both enhances the quality of service for customers and lowers the risk of launching future services. The isolation also provides security benefits since the damage caused by a cyberattack is more likely to be contained to an individual slice.[88]

Network slicing holds significant potential for 5G technology in particular.[89] Whereas earlier generations of cellular networks could only support network slicing to a limited degree, network slicing is a crucial feature of 5G.[90] It applies the same "principles of virtualization" across the entire provider network domain, allowing a single physical network to be sliced into several virtual networks.

The ability to partition networks is important because different use cases and innovative technologies place different performance requirements on networks regarding capacity, connectivity, speed, and more. One slice may be used to operate autonomous machinery on a factory floor while another is used to monitor city vehicle traffic and still another is used to provide real-time video transmission to emergency services. The options are limitless.

Network splicing also encourages innovation and investment. The combination of 5G and network slicing enables providers to offer new services like "augmented reality (AR), virtual reality (VR), and real-time augmentation" that allow users to immerse themselves in the virtual world and participate in online interactions in a way never before possible.[91] Network slicing also holds significant potential for other technologies like autonomous vehicles and telemedicine that rely on speed and operational efficiency.[92]

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[87] Ibid.
[88] Michael Cobb, "5G network slicing security benefits IoT, mobile," TechTarget, March 10, 2020, https://www.techtarget.com/searchsecurity/tip/5G-network-slicing-security-benefits-IoT-mobile.
[89] Sascha Segan, "What is 5G," PCMag, updated May 16, 2022, https://www.pcmag.com/news/what-is-5g.
[90] John Burke, "network slicing," TechTarget, updated May 2022, https://www.techtarget.com/whatis/definition/network-slicing.
[91] Zoran Lazarevic, "The crucial role of network slicing in realizing the full potential of 5G," Ericsson, February 9, 2021, https://www.ericsson.com/en/blog/5/2021/the-crucial-role-of-network-slicing-in-realizing-the-full-potential-of-5g.
[92] "Network slicing promises optimized 5G bandwidth for business-critical specialized services," T-Mobile, accessed November 6, 2023, https://www.t-mobile.com/business/resources/articles/5g-network-slicing.

Network slicing also delivers considerable economic benefits. For instance, a 2017 study examining the impact of 5G network slicing on the Internet of Things (IoT) service deployment found that network slicing can generate new revenue through market stimulation, provide better customer service, and simplify operations.[93] The study concluded that network slicing and operational automation created 35 percent more value over five years than conventional networks.

The FCC's decision to reclassify mobile broadband threatens to undermine such benefits by requiring ISPs to treat all internet data across their networks equally. This would appear to bar the types of innovative offerings that network slicing enables, since network slicing, by its very nature, treats data traffic differently.[94] Indeed, the FCC's NPRM concludes that the concerns it raised in 2015 about paid or affiliated prioritization agreements "remain valid."[95] Specifically, such arrangements risk creating internet "fast lanes" for the lucky few and "slow lanes" for everyone else. Therefore, they should be prohibited.

Unfortunately, the success of network slicing depends on operators' having the ability to customize different slices of network. Without this freedom, they may be less able to effectively manage their networks and accommodate user preferences for differentiated services. Modern networks require great flexibility, and network splicing helps make that possible. By limiting differentiation, the FCC would be restricting broadband competition, innovation, and investment.

XI. Addressing National Security Does Not Require Title II Regulations

The FCC also argues that net neutrality regulations are needed to "advance national security and protect public safety."[96] While certainly a worthy goal, the argument is quite odd. The FCC has never previously cited national security concerns as a reason for needing Title II power despite threats to national security being a major topic of debate for generations. In addition, Congress has squarely given the bulk of protecting national security and public safety to other agencies, not the FCC.

Why only now has the FCC decided to weigh in on this important topic when it could have done so previously at any time? In fact, the limited role that FCC has in protecting

[93] "Scalable network opportunities," Ericsson, September 2017, https://www.ericsson.com/4ac651/assets/local/networks-slicing/docs/executive_guide_network_slicing.pdf.
[94] "Final Letter to FCC," Committee on Energy and Commerce, October 17, 2023, https://d1dth6e84htgma.cloudfront.net/FINAL_Letter_to_FCC_re_Title_II_Reclassification_5308bd2f7e.pdf.
[95] "Notice of Proposed Rulemaking," Federal Communications Commission, 2023, pp. 75-76.
[96] "Notice of Proposed Rulemaking," Federal Communications Commission, 2023, p. 57.

communication networks and consumers, it already possesses and routinely uses in the absence of stricter net neutrality regulations.

As recently noted in the Washington Post, the FCC has already done "significant work to keep potential cyberattacks off U.S. networks" by shutting down carriers deemed to be security threats.[97] For instance, last year, the FCC revoked China Unicom's legal authority to do business in the United States, arguing it was in the "present and future public interest, convenience, and necessity" to do so.[98] The FCC took similar action against China Telecom in 2021.[99] Actions have also been taken to ban telecommunications and video surveillance equipment for Huawei Technologies, ZTE Corporation, and other Chinese companies.[100] In addition, large ISPs routinely block millions of denial of service and other network attacks each year.

The FCC can also advance national security in other ways, such as by contributing to the Office of the National Cyber Director,[101] and by operating their Privacy and Data Protection Taskforce, which works to raise public awareness about data breaches and other cyber-attacks committed by bad actors.[102] As FCC Commissioner Simington recently put in his Dissenting Statement, the government:

> "*…doesn't need the FCC to grab this power through Title II. It has CFIUS and the ICTS Supply Chain Rule, and Congress could pass a law tomorrow if it thinks there are any gaps.*"[103]

To this last point, the FCC's NPRM does not mention any of the gaps in national security that Title II would address.

To summarize, the FCC knows it is not the lead agency on national security questions. Instead, it seeks to acquire this power without congressional approval. Congress "empowered Executive Branch agencies with national security expertise," including the Department of Homeland Security, Department of Justice, and Treasury

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[97] David DiMolfetta, "The FCC says net neutrality would be a boon for national security. Some disagree." Washington Post, October 3, 2023, https://www.washingtonpost.com/politics/2023/10/03/fcc-says-net-neutrality-would-be-boon-national-security-some-disagree/.

[98] "China Unicom Americas Order on Revocation," Federal Communications Commission, February 2, 2022, https://www.fcc.gov/document/china-unicom-americas-order-revocation.

[99] "China Telecom Americas Order on Revocation and Termination," Federal Communication Commission," November 2, 2021, https://www.fcc.gov/document/china-telecom-americas-order-revocation-and-termination.

[100] "FCC Bans Authorizations for Devices That Pose National Security Threat," Federal Communications Commission, November 25, 2021, https://www.fcc.gov/document/fcc-bans-authorizations-devices-pose-national-security-threat.

[101] Brian Scott, "National Cybersecurity Strategy," Executive Office of the President, July 31, 2023, https://www.fcc.gov/sites/default/files/ONCD%20National%20Cybersecurity%20Strategy%20-%20FCC%20BGP%20Wrkshp073123.pdf.

[102] "Privacy and Data Protection Task Force," Federal Communications Commission, updated July 11, 2023, https://www.fcc.gov/privacy-and-data-protection-task-force.

[103] "Dissenting Statement of Commissioner Nathan Simington," Federal Communications Commission, October 19, 2023, https://docs.fcc.gov/public/attachments/FCC-23-83A5.pdf.

Department. The FCC already has the power it needs to protect the public without undermining the will of Congress.[104]

XII. A Nationwide Standard Does Not Require Title II Regulations

The FCC believes establishing a uniform legal framework is needed to ensure a clear and consistent national standard. The FCC argues that the 2018 decision to reclassify broadband as a Title I service and eliminate conduct rules opened the door to states creating net neutrality regulations.

Indeed, a handful of states have now created their own open internet requirements through executive orders, legislation, and contracting policies.[105] The FCC's NPRM expresses concern that these differing requirements could "increase burdens for ISPs and hinder the greater broadband market."[106] Therefore, the FCC seeks Title II authority to establish a national framework over broadband internet access to preempt any inconsistent state requirements. If the FCC can order a preemption of state rules, it can do so now without imposing stricter net neutrality regulations.

The reality is that neither the federal government nor state governments should be establishing net neutrality regulations. The FCC is right to worry that inconsistent state laws could prove burdensome to providers, specifically small and rural ISPs, which often do not possess the resources needed to navigate the complex maze of state internet regulations. However, imposing an equally burdensome federal standard on broadband internet access is not the answer. Rather, the answer is to repeal all such regulations so that federal preemption is unnecessary.

It is also worth remembering that broadband is a global service that is not limited to the confines of state geography.[107] People increasingly move from place to place and work remotely in greater numbers. States have no jurisdiction over interstate commerce, much less global traffic. Yet, the FCC does have jurisdiction over interstate communications service, both Title I and Title II services.

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[104] "Fact-Checking President Biden's Myth-Filled Plan for Government Control of the Internet," Office of Commissioner Brendan Carr, October 11, 2023, https://docs.fcc.gov/public/attachments/DOC-397587A1.pdf.
[105] Heather Morton, "Net Neutrality 2022 Legislation," National Conference of State Legislatures, updated May 4, 2022, https://www.ncsl.org/technology-and-communication/net-neutrality-2022-legislation.
[106] "Notice of Proposed Rulemaking," Federal Communications Commission, 2023, p. 14.
[107] "Population of global offline continues steady decline to 2.6 billion people in 2023," International Telecommunications Union, September 12, 2023, https://www.itu.int/en/mediacentre/Pages/PR-2023-09-12-universal-and-meaningful-connectivity-by-2030.aspx.

It would be a misstep to call on the FCC to develop a standard based on 1930s government controls that were originally designed for the telephone market.[108] With today's vastly more competitive broadband market and innovations coming at breakneck speed, utilizing a slow, public utility-style process would be regulatory malpractice.

Therefore, rather than seeking public comment on whether it's proposed net neutrality rules should serve as a "nationwide floor" or "appropriate ceiling" for consumer protections and on how best to accommodate state regulations, the FCC should scrap its plan for a national standard entirely and stop states from encroaching on its jurisdiction.[109]

As Commissioner Carr so eloquently put it, "We should not spend our time staring into the regulatory rear-view mirror or relitigating disputes that have long since passed from relevancy."[110] A strict national standard would do untold damage to an already thriving broadband market by piling more regulations on ISPs.

XIII. Ideology Overtakes the Public's Interest

Net neutrality was once opposed by many groups that today are silent or even supportive of such regulations, stating at the time that these regulations would harm disadvantaged and low-income consumers. For example, in 2009, 72 members of the House of Representatives sent a letter to the FCC warning the Commission of the potential negative consequences of these regulations.[111] Similarly, a number of letters were sent to the FCC Chairman with concerns regarding its impact on the various minority groups, labor union members, and state and local legislative members.[112] As Greg Moore, executive director of the National NAACP Voter Fund, wrote:

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[108] "E&C GOP to Rosenworcel: 'The Net Neutrality Debate was Settled When the Internet Didn't Break," Energy & Commerce Committee, October 17, 2023, https://energycommerce.house.gov/posts/e-and-c-gop-to-rosenworcel-the-net-neutrality-debate-was-settled-when-the-internet-didn-t-break.

[109] "Notice of Proposed Rulemaking," Federal Communications Commission, 2023, p. 51.

[110] "Dissenting Statement of Commissioner Brendan Carr," 2023.

[111] Anne Veigle, "72 House Democrats Urge FCC Caution on Net Neutrality," *Communications Daily*, Vol. 43:192, October 19, 2009.

[112] Here are a few examples filed with the FCC over the course of a few days. Letters to Julius Genachowski: Blair H. Taylor, Los Angeles Urban League, October 13, 2009; Jorge A. Riopedre, Hispanic Chamber of Commerce, October 13, 2009; Patricia B. Fennell, Latino Community Development Agency, October 13, 2009; RaeLene Brown, Robert Schwager and Lynn Johnson, Central Labor Council AFL-CIO, October 14, 2009; Mayor Rober Taylor, Arkansas Conference of Black Mayors, October 14, 2009; Harry C. Alford (National Black Chamber of Commerce), Javier Palomarez (US Hispanic Chamber of Commerce), Gina Robinson-Billups (National Association of Moms for Business), Susan Au Allen (US Pan-Asian Chamber of Commerce), Chance Mitchell (National Gay & Lesbian Chamber of Commerce), Bonnie Wong (Asian Women in Business), October 15, 2009; Charles Jean-Baptiste, Kansas State NAACP Conference, October 13, 2009; Robert Jamison, NAACP (Lee County Branch, MS0, October 14, 2009; Justin Nelson and Chance Mitchell, National Gay & Lesbian Chamber of Commerce, October 14, 2009; Senator Don Balfour (GA)and Representative Brian Patrick Kennedy (RI), National Conference of State Legislatures,

"Although net neutrality activists claim to be protecting free speech, net neutrality regulations would effectively silence many minority voices, as low-income communities drop off the online landscape because they can't afford the price of admission."[113]

Given the lack of evidence of a market failure and the lack of empirical support showing that consumers would benefit from these regulations, what has changed? In our view, net neutrality has become ideologically driven. It is important for the FCC, an independent commission, to discount rhetoric and ideology, and instead opt for an extensive cost/benefit analysis and supporting empirical evidence before moving forward with this NPRM.

XIV. Conclusion

The American Consumer Institute is deeply concerned by the FCC's proposal to impose utility-style regulations on the broadband market. Such regulations represent a radical departure from the light-touch approach to the internet that has successfully governed the country over the last few years.

In our remarks, we show that there is no evidence of market failure that would justify the newly proposed net neutrality regulations. To the contrary, numerous studies find that net neutrality regulations would reduce consumer welfare. Given the strong growth and investment in markets for broadband services, decreasing market concentration, falling rates, low ISP profits, and increased broadband speeds and coverage, policymakers must clarify why these regulations are now needed.

What we do strongly support is the FCC's own words about how the absence of internet regulation aided the successful promotion of network investment, innovation, and growth:

"The Internet has evolved at an unprecedented pace, in large part due to the absence of government regulation. Consistent with the tradition of promoting innovation in new communications services, regulatory agencies should refrain from taking actions that could stifle the growth of the Internet. During this time of rapid telecommunications liberalization and technology innovation, unnecessary regulation can inhibit the global development and expansion of Internet infrastructure and services. To ensure that the Internet is available to as many persons as possible, the FCC has adopted a "hands-off" Internet policy. We are in the early stages of global Internet development, and policymakers should avoid actions that may limit the tremendous potential of Internet delivery."[114]

October 15, 2009; and Representative Calvin Smyre (GA), The National Black Caucus of State Legislators, October 14, 2009.

[113] Greg Moore, Asbury Park Press, May 11, 2007.

[114] "Connecting the Globe: A Regulator's Guide to Building a Global Information Community," Federal Communications Commission, p. IX-2, https://transition.fcc.gov/connectglobe/regguide.pdf.

The evidence presented here shows that there has been no market failure to justify net neutrality regulations**.** If implemented, these regulations would impede network investment and reduce consumer welfare by raising consumer broadband prices. Proponents calling for regulations have provided no evidence that is consistent with widely accepted economic theory or the facts of current market conduct and performance. Furthermore, the FCC has not collected nor analyzed the consumer welfare implications of these rules, nor have they weighed the costs and benefits of reversing the decades-long trend toward reliance on markets.

The internet is a dynamic and competitive market, and it is highly unlikely that a regulator can correctly identify the business models and practices that will maximize consumer welfare. Indeed, history indicates that interventions by regulators can delay the introduction of innovative technologies and result in significant harm to consumers, as service providers face weakened incentives to invest and innovate.

In summary, we ask the FCC to pause its proceedings until factual evidence is provided to the public for comment.

Respectfully submitted,

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