

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

**Safeguarding and Securing
the Open Internet**

)
)

Docket No. 23-320

**COMMENTS OF
NTCA–THE RURAL BROADBAND ASSOCIATION**



Michael Romano
Joshua Seidemann
Brian Ford
Tamber Ray

4121 Wilson Boulevard, Suite 1000
Arlington, VA 22203
(703) 351-2000
mromano@ntca.org

December 14, 2023

TABLE OF CONTENTS

EXECUTIVE SUMMARY..... i

I. INTRODUCTION.....1

II. DISCUSSION2

 A. EVEN AS AVAILABILITY AND AFFORDABILITY REMAIN
 CHALLENGING IN CERTAIN INSTANCES, THE BROADBAND
 MARKETPLACE IS THRIVING AND CONSUMERS AND BUSINESSES
 ARE REALIZING THE BENEFITS OF IMPROVING ACCESS.2

 1. Broadband Engagement for Many Applications Continues to Increase
 Among U.S. Users.2

 2. Users Have Access to the Content They Seek.6

 3. The Internet is Composed of Many Layers.....9

 B. THE COMMISSION SHOULD ACCOUNT FOR THE MULTI-FACETED
 NATURE OF THE INTERNET ECOSYSTEM AND TAILOR ANY OPEN
 INTERNET POLICIES ACCORDINGLY.10

 1. The NPRM Does Not Account Fully for the Roles That Multiple Entities
 Play in Consumers’ Overall Experience.10

 2. Limited Regulatory Backstops Can Protect Consumers by Accounting for
 the Multi-Layered Nature of the Internet Ecosystem.13

 C. PUBLIC INTEREST GOALS CAN BE MET WITHOUT THE
 PROMULGATION OF EXPANSIVE NEW RULES.16

 1. Additional Regulation of BIAS is Unnecessary to Safeguard National
 Security.16

 2. Additional Regulation of BIAS is Unnecessary for Consumer Protection or
 Privacy Purposes.....24

 3. Additional Regulation Focused Only on BIAS Would Chill, Rather than
 Stimulate, Last-Mile Network Investment.27

| | | |
|------|--|----|
| D. | IF THE COMMISSION PROCEEDS WITH RECLASSIFICATION, FORBEARANCE FROM UNIVERSAL SERVICE CONTRIBUTION REQUIREMENTS IS UNWARRANTED AND CONTRARY TO THE PUBLIC INTEREST; WOULD UNDERMINE PUBLIC POLICY OBJECTIVES THE COMMISSION REPEATEDLY ASSERTS ARE IMPORTANT IN OTHER CONTEXTS; WOULD UNDERMINE FURTHERANCE OF ESSENTIAL STATUTORY MANDATES; AND WOULD HARM CONSUMERS. | 29 |
| III. | <u>CONCLUSION</u> | 35 |

EXECUTIVE SUMMARY

Even as the instant Notice of Proposed Rulemaking (NPRM) articulates admirable and widely shared goals of fostering innovation and promoting consumer access to desired content, it proceeds from a fundamental misperception of the wide-ranging online ecosystem and the stakeholders within it that can affect achievement of these goals. In particular, the NPRM views this ecosystem through the prism of a two-sided market within which only one side should be regulated. And yet, the internet comprises a multi-layered ecosystem of which broadband internet access service (BIAS) providers are but a single element. As the NPRM itself notes, the fulfillment of consumer needs and demands with respect to online access typically involves not only the “last mile” internet service provider (ISP), but also edge providers and other intermediaries such as transit providers and backbone transmission operators. And, even within the “last mile” ISP construct, there are some that arguably may be able to exercise a substantial degree of market power with respect to other stakeholders in the ecosystem, while other ISPs are relatively small and lack any meaningful ability to even bargain directly with – never mind extract concessions from – other stakeholders.

Accordingly, NTCA submits that overriding public interest goals can be accomplished with narrowly drawn measures that focus upon key potential points of failure in the transmission of content and data, regardless of where they reside in the ecosystem. And, where intervention is warranted, NTCA submits that a “light touch” approach using regulatory backstops in lieu of the imposition of substantial *ex ante* regulation on only one segment (BIAS) will be best suited to the continuing advancement and evolution of the marketplace – and critical to avoid deterring last-mile network investment and burdening smaller rural ISPs who themselves are critical to a vision of universal connectivity. NTCA further submits that, if the proposed actions should

proceed notwithstanding these perspectives, the Commission need not impose additional measures to safeguard national security, consumer protection, or privacy. Finally, should the Commission nonetheless proceed with reclassification, it should not forbear from universal service contribution obligations under Section 254 of the Communications Act, as amended, because this would be contrary to the public interest, undermine public policy objectives that the Commission otherwise identifies as important in other contexts, and harm consumers by failing to carry out faithfully statutory mandates with respect to support of universal service.

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

**Safeguarding and Securing
the Open Internet**

)
)

Docket No. 23-320

**COMMENTS OF
NTCA–THE RURAL BROADBAND ASSOCIATION**

To the Commission:

I. INTRODUCTION

NTCA hereby submits comments in the above-captioned proceeding. The instant Notice of Proposed Rulemaking¹ represents the latest chapter in a long-running debate over the regulation of broadband internet access services (BIAS). The instant NPRM evidences deeply held and competing positions, in some instances favoring pervasive regulation, while in others urging a market-supported *laissez faire* approach that would avoid regulatory intervention. NTCA submits that certain of these positions reflect a perspective that the broadband ecosystem is a two-sided market within which only one side should be regulated. And yet as described herein, the internet comprises a multi-layered ecosystem of which BIAS providers are but a single element. As the NPRM itself notes, the fulfillment of consumer needs and demands with respect to online access typically involves not only the “last mile” internet service provider (ISP), but also edge providers and other intermediaries such as transit providers and backbone transmission operators.² And, even within the “last mile” ISP construct, there are some that arguably may be able to exercise a substantial degree of market power with respect to other

¹ *Safeguarding and Securing the Open Internet: Notice of Proposed Rulemaking*, Docket No. 23-320, FCC 23-83 (2023) (NPRM).

² NPRM at paras. 65, 112, 122-128.

stakeholders in the ecosystem, while other ISPs are relatively small and lack any meaningful ability to even bargain directly with – never mind extract concessions from – other stakeholders.

Accordingly, NTCA submits that a coherent approach that fosters innovation while protecting market participants must reject notions that the ability and incentives to engage in certain kinds of conduct arise only from retail ISPs. Rather, to the extent that any regulatory intervention is desired and sought here, NTCA submits that overriding public interest goals can be accomplished with narrowly drawn measures that target potential friction points within the internet ecosystem while leaving smoothly running aspects of the market to flourish. And, where such intervention is undertaken, NTCA submits that a “light touch” approach will be best suited to the continuing advancement and evolution of the marketplace – and is critical to avoid burdening smaller rural ISPs who themselves are critical to a vision of universal connectivity.

II. DISCUSSION

A. EVEN AS AVAILABILITY AND AFFORDABILITY REMAIN CHALLENGING IN CERTAIN INSTANCES, THE BROADBAND MARKETPLACE IS THRIVING AND CONSUMERS AND BUSINESSES ARE REALIZING THE BENEFITS OF IMPROVING ACCESS.

1. Broadband Engagement for Many Applications Continues to Increase Among U.S. Users.

As the Commission observes, BIAS plays a critical role in promoting “full participation in our society and economy.”³ Beyond the many obvious benefits that accrue directly to consumers – as discussed further below in terms of access to content and connections of all kinds with other users – broadband is a rapidly increasing input for many sectors including agriculture, economic development, education, healthcare, and public safety. NTCA has championed and promoted these applications in numerous Commission filings as well as focused publications

³ NPRM at para. 17.

devoted to the role of broadband in agriculture,⁴ economic development,⁵ education,⁶ and healthcare.⁷ NTCA has also taken a leadership role to promote the need for digital inclusion, especially in rural areas.⁸ As the Commission cites current trends that illustrate the depth at which users depend on BIAS,⁹ NTCA takes special interest in those applications that have particular relevance to rural areas.

By way of illustration, internet connectivity enables rural economic development by enabling firms to expand their markets. Moreover, broadband connectivity enables rural residents to take full advantage of the “work from anywhere” revolution. The U.S. Bureau of Labor Statistics reports that approximately one in five workers telework.¹⁰ Forbes reports that nearly

⁴ Seidemann, Joshua, *From Fiber to Field: The Role of Rural Broadband in Emerging Agricultural Technology*, Smart Rural Community (2021) (<https://www.ntca.org/sites/default/files/documents/2021-07/06.14.21%20SRC%20Ag%20Tech%20Final.pdf>) (accessed Dec. 11, 2023).

⁵ Seidemann, Joshua, *Beyond Rural Walls: Identifying Impacts and Interdependencies Among Rural and Urban Spaces*, Smart Rural Community (2015) (https://www.ntca.org/sites/default/files/documents/2021-03/SRC_whitepaper_identifying_impacts_and_interdependencies.pdf) (accessed Dec. 11, 2023).

⁶ Seidemann, Joshua, *Rural Broadband and the Next Generation of American Jobs*, Smart Rural Community (2019) (https://www.ntca.org/sites/default/files/documents/2021-03/SRC_whitepaper_the_next_generation_of_american_jobs.pdf) (accessed Dec. 11, 2023)

⁷ Schadelbauer, Rick, *Anticipating the Economic Returns of Rural Telehealth*, Smart Rural Community (2017) (https://www.ntca.org/sites/default/files/documents/2021-03/SRC_whitepaper_anticipatingeconomicreturns.pdf) (accessed Dec. 11, 2023).

⁸ Seidemann, Joshua, *SMART Tools for Digital Inclusion*, NTCA–The Rural Broadband Association (2023) (<https://www.ntca.org/sites/default/files/documents/SMARTDigitalInclusionToolkit.pdf>) (appendices available at <https://www.ntca.org/sites/default/files/documents/SMART-Toolkit-Appendix.pdf>); Seidemann, Joshua, and Barboza, Roxanna, *Rural Imperatives in Broadband Adoption and Digital Inclusion*, Smart Rural Community (2021) (<https://www.ntca.org/sites/default/files/documents/2022-03/src-whitepaper-broadband-adoption-and-digital-inclusion.pdf>) (accessed Dec. 11, 2023).

⁹ NPRM at para. 17.

¹⁰ “37.9 Percent of Advanced Degree Holders Teleworked in October 2023,” TED: The Economics Daily, U.S. Bureau of Labor Statistics (Nov. 16, 2023) (<https://www.bls.gov/opub/ted/2023/37-9-percent-of-advanced-degree-holders-teleworked-in-october-2023.htm#:~:text=About%20one%20in%20five%20employed.all%20of%20their%20work%20hours.>) (accessed Dec. 11, 2023).

one-third of U.S. workers use a hybrid telework model,¹¹ and Pew Research reports approximately one-third of U.S. workers who have telework option take advantage of it.¹² Robust internet connections also underpin ag tech: 81% of farms with more than 5,000 acres (defined as “large farms”) are willing to adopt ag tech solutions; 76% of mid-sized farms (2,000 to 5,000 acres) are interested in ag tech; and 36% of small farms (smaller than 2,000 acres) are interested in adopting ag tech.¹³ Ag tech in current use drives 4% increases in crop yields; 7% greater efficiency in fertilizer placement; decreases chemical and fossil fuel consumption by 9% and 6%, respectively; decreases herbicide use by 30 million lbs.; and saves enough water through smart irrigation to fill 750,000 Olympic-size pools.¹⁴ Additionally, broadband access correlates positively to telehealth usage.¹⁵ And, even as patients, providers, and policymakers navigate critical questions relating to, *inter alia*, licensure and reimbursement, telehealth is increasingly recognized as a critical input to achieve improved patient outcomes in rural spaces.¹⁶

¹¹ Kathleen Han, “Remote Work Statistics and Trends in 2023,” Forbes Advisor (Jun. 21, 2023) (<https://www.forbes.com/advisor/business/remote-work-statistics/>) (accessed Dec. 11, 2023).

¹² Kim Parker, “About a Third of U.S. Workers Who Can Work from Home Now Do So All the Time,” Pew Research Center (Mar. 30, 2023) (<https://www.pewresearch.org/short-reads/2023/03/30/about-a-third-of-us-workers-who-can-work-from-home-do-so-all-the-time/>) (accessed Dec. 11, 2023).

¹³ David Fiocco, Vasnath Ganesa, Maria de la Serrana Lozano, and Husain Sharifi, “Agtech: Breaking Down the Farmer Adoption Dilemma,” McKinsey & Co. (Feb. 7, 2023) (<https://www.mckinsey.com/industries/agriculture/our-insights/agtech-breaking-down-the-farmer-adoption-dilemma>) (accessed Dec. 11, 2023).

¹⁴ “The Environmental Benefits of Precision Agriculture in the United States,” American Equipment Manufacturers Association, *et al.* (2021) ([Newsroom | Association of Equipment Manufacturers \(aem.org\)](https://www.aem.org/newsroom/association-of-equipment-manufacturers-aem.org)) (accessed Dec. 11, 2023).

¹⁵ Pandit AA, Mahashabde RV, Brown CC, Acharya M, Shoults CC, Eswaran H, Hayes CJ, “Association Between Broadband Capacity and Telehealth Utilization Among Medicare Fee-for-Service Beneficiaries During the COVID-19 Pandemic,” National Library of Medicine (2023) ([https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10076155/#:~:text=Results,broadband%20availability%20\(quintile%201\)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10076155/#:~:text=Results,broadband%20availability%20(quintile%201))) (accessed Dec. 11, 2023).

¹⁶ *See, i.e.*, Euny C. Lee, Violanda Grigorescu, Idia Enohieru, Scott R. Smith, Lok Wong Samson, Ann B. Conmy, Nancy De Lew, “Updated National Survey Trends in Telehealth Utilization and Modality (2021-2022),” Office of Health Policy, U.S. Department of Health & Human Services (Apr. 19, 2023) (<https://aspe.hhs.gov/sites/default/files/documents/7d6b4989431f4c70144f209622975116/household-pulse-survey-telehealth-covid-ib.pdf>) (accessed Dec. 11, 2023).

As broadband demand has increased, providers have responded. Data indicate overwhelming positive trends in deployment and adoption, as well as increasing numbers of subscriptions to more advanced services. In rural NTCA member service areas alone, fiber-to-the-premises deployments increased from 79.3% in 2022 to 83.5% in 2023, while broadband subscription rates for speeds between 100 Mbps and 1 gig increased from 36.7% in 2022 to 48.5% in 2023. At the same time, subscription rates for all slower levels of services decreased on average by 3.2%.¹⁷ Overall, private firms invested more than \$102 billion in U.S. communications infrastructure last year, the highest level in more than two decades and a 19% year-on-year increase.¹⁸ Spending on U.S. consumer technology is expected to increase in 2024, driven by increasing interest in gaming and video streaming services, the latter of which are used by 92% of U.S. adults; gaming subscriptions alone are predicted to grow 12% in 2024.¹⁹

Technological innovation combined with increased incidence of engagement, complemented by a growing number of subscribers and buttressed by expanding broadband deployments, force a confrontation with the question of why broad-brush regulation of BIAS would be necessary. The market is thriving. To be clear, there are persistent challenges of availability and affordability that the Commission must continue to tackle – and it is already playing a leading role in doing so through initiatives such as its universal service programs, its broadband mapping efforts, and the Affordable Connectivity Program. Nonetheless, and in many

¹⁷ Broadband/Internet Availability Survey Report, NTCA–The Rural Broadband Association, at 9 (Dec. 2023) (<https://www.ntca.org/sites/default/files/documents/2023-12/2023%20Broadband%20Survey%20Report%20FINAL.pdf>) (accessed Dec. 11, 2023).

¹⁸ “2022 Broadband Cap-Ex Report,” USTelecom (Wash., D.C.) (<https://ustelecom.org/research/2022-broadband-capex/#:~:text=America's%20broadband%20industry%20invested%20a,high%2Dspeed%20connectivity%20for%20all>) (accessed Dec. 4, 2023).

¹⁹ Jim Fellingner, “CTA Forecast: U.S. Spending on Consumer Technology Software and Services Will Rise 3.4% in 2024,” (Oct. 25, 2023) (<https://www.cta.tech/Resources/Newsroom/Media-Releases/2023/October/CTA-Forecast-U-S-Spending-on-Consumer-Technology-S>) (accessed Dec. 11, 2023).

rural areas precisely *because of* such efforts by the Commission, it cannot be ignored that the broadband marketplace has accelerated at a remarkable pace. Accordingly, NTCA recommends the Commission to focus on the lodestars of the broadband experience – universal service, consumer protection, and the ability of small ISPs to access middle mile, backbone, and other elements that are critical to serving rural spaces – and then to consider and implement narrowly targeted measures to address potential problems. This approach will leave a successful market free to grow unfettered by unnecessary regulation, while ensuring guardrails that ensure continuing promotion of the public interest.

2. Users Have Access to the Content They Seek.

The original intent of “net neutrality,” as articulated by Tim Wu, was focused on non-discrimination, specifically, no blocking of legal content and no throttling or slowing down of content.²⁰ And, indeed, those principles are already addressed by the Commission’s ISP transparency rule, which requires ISPs to publicly disclose information about their network management practices, performance characteristics, and commercial terms of its service.²¹ These aims are moreover managed by the natural dynamics of the current marketplace. Net neutrality proposals presume that ISPs have an interest in restricting users’ access to content. But so-called content control by ISPs is not a realistic threat in the current marketplace (and especially for smaller ISPs who risk doing so at their own peril). In the early days of the commercial internet, access was available through so-called “walled garden” providers like AOL who published content that was available *only* to AOL subscribers. In contrast, the current marketplace facilitates the proliferation of higher quality content, including applications, streaming video, and

²⁰ See, Wu, Tim, *Network Neutrality, Broadband Discrimination*, 2 J. on Telecom. & High Tech. L., 141 (2003).

²¹ 47 CFR § 8.1.

cloud services, spurring fierce competition among ISPs (the middlemen between content creators and end-users) to provide customers with increasingly more capable and higher value platforms through which end-users can access the content they desire.

The Commission recognizes this in the NPRM, noting that “edge innovation and consumer demand . . . promotes ISP investment . . .”²² Streaming platforms alone commanded nearly 40% of total TV viewership in July 2023.²³ At the same time, the explosive reliance on broadband during the COVID-19 pandemic propelled National interest in rural broadband beyond relatively narrower conversations and into the broader National consciousness. Suggestions that ISPs would intend to limit their subscribers’ ability to access content²⁴ cut against the business model of ISPs, particularly those who are not large content creators (and in fact, the NPRM acknowledges “major ISPs have broadly accepted a no-blocking principle”).²⁵ This is also particularly true for small rural ISPs that lack the market power or bargaining strength to demand concessions of larger platforms or even to negotiate on “even terms” with respect to questions such as caching server placement, direct interconnection, or other operational matters that affect costs of delivering content to end users.

Net neutrality efforts historically arose from concerns that operators of capital-intensive infrastructure will attempt to extract concessions from content creators.²⁶ However, the multi-platform, multi-provider market evidences those concerns are unfounded. Moreover, theoretical

²² NPRM at para. 130.

²³ “Streaming Grabs a Record 38.7% of Total T.V. Usage in July, with Acquired Titles Outpacing New Originals,” Nielsen (Aug. 2023) (<https://www.nielsen.com/insights/2023/streaming-grabs-a-record-38-7-of-total-tv-usage-in-july-with-acquired-titles-outpacing-new-originals/>) (accessed Dec. 11, 2023).

²⁴ *See*, NPRM at para. 151 (internal citation omitted).

²⁵ NPRM at para. 153.

²⁶ *See, i.e.*, NPRM at para. 151.

scenarios of vertically integrated firms acting to disadvantage non-affiliated firms are similarly insufficient to support broad-brush regulation. By way of example, NBCUniversal is a vertically integrated firm that produces content and provides ISP service through Comcast and Xfinity. However, no evidence has been presented that NBCUniversal or its subsidiaries have explicitly or effectively restricted consumer access to online content from other providers. Forbes reports that at the end of 2022, Peacock boasted 20 million subscribers, roughly 8.6% of Netflix’s 230 million subscribers and 12.4% of Disney+’s 161 million subscribers. Peacock also trailed Paramount+ (56 million subs), Hulu (48 million subs), and ESPN+ (24.9 million).²⁷ Nielsen reported in 2023 that Netflix, Hulu, and Amazon Prime combined to account for 40% of the streaming market while Peacock captured but 2.84% of streamers.²⁸ In fact, even as Peacock struggles to gain customers for its content, ISP-provider Comcast lost nearly a half-million subscribers in 3Q23.²⁹ While policy ought not be based on the behavior or performance of just one company, it can be reasoned that (i) in a market largely devoid of vertically integrated firms, and (ii) where the only large integrated firm does not appear to engage in anti-competitive behavior and in fact trails competitors, (iii) concerns to encourage heavy-handed regulation are not justified.

²⁷ Ana Faguy, “Peacock Raises Its Rates: Here’s How it Compares to Rivals Netflix, Paramount+, and More,” Forbes (Jul. 18, 2023) (<https://www.forbes.com/sites/anafaguy/2023/07/18/peacock-raises-its-rates-heres-how-it-compares-to-rivals-netflix-paramount-and-more/?sh=7027ec3119c5>) (accessed Dec. 1, 2023).

²⁸ Erik Gruenwendel, “Nielsen: Streaming Video Market Share Reached Record High in July,” Media Play News (Aug. 15, 2023) (<https://www.mediaplaynews.com/nielsen-streaming-video-market-share-reached-record-high-in-july/>) (accessed Dec. 11, 2023).

²⁹ Todd Shields, “Comcast Plummets as NBC Owner Sheds Broadband, Cable Customers,” The Spokesman-Review (Oct. 26, 2023) (<https://www.spokesman.com/stories/2023/oct/26/comcast-plummets-as-nbc-owner-sheds-broadband-cabl/>) (accessed Dec. 4, 2023).

3. The Internet is Composed of Many Layers.

The end-user layer represents but one segment of the BIAS market. Various models explain the multi-layered nature of the internet. The OSI (Open Systems Interconnection) model contemplates seven layers: physical; data link; network; transport; session; presentation; and application.³⁰ Although originally predicted to serve as a basis for a global interconnected network, the OSI model was supplanted by TCP/IP (Transmission Control Protocol and Internet Protocol), which principally relies on four layers: network access; internet; transport; and application.³¹ Both models evidence a consistent understanding that there are different and distinct layers of the internet. These provide context for the NTCA’s vision of where and how regulatory imprints might be introduced in the broadband ecosystem, specifically, which layers of that ecosystem could benefit from a regulatory backstop, and which should continue to flourish in the absence of regulatory intervention.

An approach that ignores the complexity of the online ecosystem and instead contemplates only a binary two-sided market will not serve the goals of ensuring access to

³⁰ The *physical* layer embraces the electric or optic transmission of raw, unstructured data. This layer includes the physical plant of network hubs, cables, adapters, and repeaters. This includes, at its most essential level, the transmission of raw data over a physical medium. The *data link* layer is where node-to-node data transfer occurs. This layer also includes two sub-layers, Media Access Control and Logical Link Control. This is where format of data is defined. The *network* layer is where the physical path upon which data will be transmitted is selected. The *transport* layer is where data is transmitted using either TCP (Transmission Control Protocol) or UDP (User Datagram Protocol). UDP is commonly used for time-sensitive applications including video, gaming, or DNS (Domain Name System) lookups. The *session* layer is where ports and sessions are controlled; in this context, “sessions” refers to communications channels that are opened for the transmission of data and closed when the communication ends. The *presentation* layer prepares data for the application layer. It is at this layer that the form of data coding, encryption, and compression are defined. The *application* layer is the closest to the end-user, and where protocols including Hypertext Transfer Protocol (HTTP), File Transfer Protocol (FTP), Post Office Protocol (POP), Simple Mail Transfer Protocol (SMTP), and Domain Name System (DNS).

³¹ TCP/IP emerged as the dominant approach in 1983, when the U.S. Advanced Research Projects Agency (ARPA), which had funded the creation of a redundant communications network in response to Cold War threats, suspended support for its in-house ARPANET protocols and instead effectively forced users to adopt TCP/IP as an alternative. See, Andrew L. Russell, “OSI: The Internet that Wasn’t,” IEEE Spectrum (Jul. 29, 2023) (<https://spectrum.ieee.org/osi-the-internet-that-wasnt>) (accessed Dec. 11, 2023).

internet services, content, and applications.³² Moreover, a lopsided focus on only “last mile ISPs” ignores the fact that the activities of many entities across the different layers of the internet affect market participants. The factors that concern those entities may include the size of the firms with which they interact; geography; end-user preferences; and market demographics. NTCA submits that the inquiry of determining *what type* of regulations may be appropriate must start by identifying *which levels* of the internet are operating effectively in the absence of regulation, and *which other levels* of the internet might otherwise benefit from regulatory backstops.

B. THE COMMISSION SHOULD ACCOUNT FOR THE MULTI-FACETED NATURE OF THE INTERNET ECOSYSTEM AND TAILOR ANY OPEN INTERNET POLICIES ACCORDINGLY.

1. The NPRM Does Not Account Fully for the Roles That Multiple Entities Play in Consumers’ Overall Experience.

NTCA supports a framework that ensures the seamless exchange of voice and Internet traffic between ISPs and the rest of the broadband ecosystem, including other communications providers such as backbone and transit/peering operators, middle mile networks, streaming providers, and other edge and content platforms. More specifically, NTCA seeks to ensure that “edge innovation,”³³ among the other pro-consumer results sought in the NPRM, accrues in equal measure to rural consumers without distinction as to where a “break in the chain” could occur. As noted above, NTCA submits that any Commission action should be narrowly targeted to address tactics that can undermine consumer expectations, competition, innovation, or universal service. This analysis must contemplate the multi-layered ecosystem, as opposed to the

³² For additional discussions on these topics, please see, Comments of NTCA, GN Docket No. 14-28, at 6, 7; Reply Comments of NTCA, GN Docket No. 14-28, at 9, 10.

³³ NPRM at paras. 130-133.

two-sided market contemplated by the NPRM in which only one side is alleged to need regulation. A full analysis will identify those entities that in reality hold power to affect the operations of others and illuminate where a regulatory backstop might help to promote consumer interests.

As presented, the Commission portrays the Internet ecosystem as a mere “two-party” structure: retail ISPs on one side and Content/Edge Providers (C/EPs) on the other. Moreover, the NPRM is based largely on assumptions that only the former possess an ability to discriminate against the latter. However, retail ISPs and C/EPs each could affect the flow of content and the terms by which that occurs (or does not). Moreover, these two parties, which are the focus of the NPRM, are in fact part of a larger multi-sided market. Certainly, while there usually is no direct privity (or even physical network connections) between the two in most instances, their relationship warrants consideration. Consumers find value in retail ISP services that enable access to services, applications, and content offered by C/EPs. The value of the former is highly diminished if consumers cannot access the latter’s services. In a similar vein, C/EPs need the underlying networks provided by retail ISPs (and networks of others in between) to reach the consumer market for their services. Accordingly, each party possesses the opportunity to enhance or undermine the successful operation of the other and its ability to reach consumers. The NPRM characterizes this as a “virtuous cycle” that drives investment.³⁴

However, as hinted above, the internet ecosystem is broader than the two sets of parties highlighted in the NPRM. Middle mile providers, transit providers, backbone providers, and content distribution networks (CDNs) all hold themselves out to retail ISPs and C/EPs alike as being capable of conveying data from one point to another, implicating (a) the data that travels

³⁴ *Id.* at para. 130.

between broadband consumers and (b) the servers on which services, applications, and content reside. The ability of consumers to use their retail ISP to access C/EPs' offerings (and to promote the virtuous cycle described by the Commission) – especially in deeply rural areas where smaller providers typically do *not* also own and operate these other networks – depends on the seamless exchange of traffic involving all these entities in the internet ecosystem. Moreover, the Commission should not overlook the fact that voice traffic exchange is an important part of the services ecosystem and is relevant here, as well; the seamless exchange of voice traffic can be thwarted by one party's intransigent behavior.

With this as the backdrop, NTCA urges the Commission to recognize that while ISPs might *in theory* be capable of withholding access to their customers in exchange for remuneration, their interest in doing so is tempered by consumer interest in access to content – and, in the case of smaller rural operators, by marketplace realities with respect to relative bargaining power, financial strength, and geographic reach. In contrast, greater incentive and ability to restrict access exist at other layers of the ecosystem and on the part of other operators.

Indeed, the innovation highlighted by the NPRM will accrue only if every player in this ecosystem exchanges traffic in a seamless manner, and if remedies are available when they do not. In contrast, a regulatory construct that envisions a simple two-sided market could harm consumers by setting the stage for regulation where it is not necessary. Lessons learned from a failure to account for certain parties' practices in this regard are still fresh in the minds of rural consumers who endured nearly a decade of “rural call incompleteness” problems in which calls destined for rural areas simply failed to arrive.³⁵ In those instances, so-called least cost routers were players in a multi-party system that thwarted the seamless exchange of traffic to the

³⁵ See, e.g., *Rural Call Completion*, WC Docket No. 13-39, Second Further Notice of Proposed Rulemaking (rel. July 14, 2017) (*Rural Call Completion Second Further NPRM*).

detriment of consumers. Here, too, NTCA urges the Commission to adopt a broad view of the ecosystem and address those entities where motive and opportunity for misbehavior exist.

Ensuring seamless exchange of data by recognizing the multi-faceted nature of the internet ecosystem is particularly critical for rural consumers. And, *arguendo* a large/nationwide retail ISP may possess the ability to forestall “edge innovation” in the way envisioned by the NPRM, it would defy logic to assert that NTCA members with an approximate average of 6,000 subscribers in deeply rural geographies could ever exercise such power. Indeed, the reverse is likely true. In fact, one only need look at desires expressed in the past by the nation’s largest operators to change the terms and conditions of responsibility for voice traffic exchange³⁶ in a way that harms rural consumers. The nation’s largest carriers have long made no secret of their desire to *unilaterally* move points of interconnection for this traffic in a way that foists costs on rural consumers and undermines universal service.³⁷ It is accordingly fully within the realm of possibility that this approach would be wielded by those who seek to employ similar tactics in the internet ecosystem, and any assertion that the Commission need not be attuned to this type of scenario is misplaced.

2. Limited Regulatory Backstops Can Protect Consumers by Accounting for the Multi-Layered Nature of the Internet Ecosystem.

Rather than imposing heavy-handed regulation on one segment of the internet ecosystem without any consideration of relative incentives and abilities to frustrate the flow of content or the broader nature of the stakeholders involved in the transmission of such data, NTCA urges the

³⁶ See, e.g., *Ex Parte* Letter from Brian Benison, Director – Federal Regulatory, AT&T, to Marlene H. Dortch, Secretary, Commission, GN Docket No. 13-5, *et al.* (dated Jan. 24, 2014), at Presentation Slide 11 (showing 5 to 8 interconnection points total nationwide as the model for both Tier 1 IP voice and peering interconnection).

³⁷ As NTCA has noted, this can be seen in the voice context where larger operators’ push for a transition to a handful of points of interconnection across the county would impose, for the first time ever, transport costs onto some rural customer bases and threaten the continued affordability of voice service. Comments of NTCA-The Rural Broadband Association, WC Docket No. 17-97 (May 15, 2020) pp. 5-10.

Commission to recognize the multi-layered nature of the internet ecosystem and to promote a regulatory framework that addresses the potential failure of underlying networks that would undermine consumer access. In the first instance, this should focus not upon retail regulation of last-mile networks, but rather specifically upon *transport and transmission* of data across *all* networks, platforms, and CDNs that play a role in this process. This approach will ensure that networks interconnect seamlessly, and that important public policy goals of consumer protection, universal service, competition, and public safety are not threatened by the unjust and unreasonable acts or omissions of any given network operator. It also will avoid interjecting regulation that is ill-suited to solve the issues about which the Commission professes concern, and only upon a small segment of the places in which such concerns could arise.

A focus upon transmission is properly based upon (i) the unmistakable division between networks and the services that ride atop them, with (ii) an appropriately tailored approach to ensure that consumers can access the content, applications, and services they need and that ride atop their broadband connections. Such a distinction is critical as it recognizes that the failure of underlying interconnected networks to exchange traffic seamlessly is a threat to edge innovation. By way of example, a dispute between an ISP and a transit provider utilized by the former can threaten consumers' access to the content they desire, ultimately thwarting innovation in the content and applications space.

This type of network layer approach should not and need not be heavy handed even as it protects consumers where threats to an Open Internet emerge, as it would apply to all network transport and transmission facilities without distinction or opportunity for arbitrage. Moreover, in lieu of imposing substantial *ex ante* rules and codes, this should operate simply as a regulatory backstop that (a) prohibits conduct in (i) the interconnection and exchange of data and content

that, (ii) undermines broadband deployment and effective consumer use of such services, and (b) enables the Commission to step in and resolve disputes or disagreements that may arise between networks and other operators (including C/EPs to the extent they own and operate their own physical layer network facilities) consistent with a prohibition on such conduct. Such a narrow and targeted application of a backstop would be consistent with Sections 201 and 202 of the Communications Act of 1934 (as amended) (the Act), which require service to be provided upon reasonable request, codifies a carrier's duty to interconnect, and prohibits unjust and unreasonable discrimination. Sections 206, 207, and 208 of the Act could also offer an avenue for the resolution of complaints and enforcement mechanisms should the need arise. In this regard network operators would retain substantial flexibility to pursue tailored solutions to service needs and interconnection issues without heavy-handed *ex ante* regulations, albeit against a regulatory backstop to ensure that consumers' connectivity is not lost or unreasonably impaired due to disputes between underlying network operators.

As a final and important component of any such framework, the Commission should consider a consumer-facing "no blocking" rule applicable in equal measure to all stakeholders in the online ecosystem – including C/EPs. As noted above, this category of operators would appear to have at least the same incentive and ability to block data as network operators, and Content/Edge Provider blocking of otherwise freely available content upon an unduly discretionary whim is nothing less than a limitation on users' access to the content of their choice. As such, these operators engaging in blocking behavior would have as much adverse impact on consumer demand for broadband service as the behavior underpinning the NPRM. Consumers displeased with the prospect that the content of their choice may not be available due to a dispute between a retail ISP and a C/EP may see less need to keep, or utilize, their

broadband subscription. This resulting depression in end user demand, which then threatens broadband deployment, is both at the very heart of this proceeding and addressing it would seem to be compelled by Section 706(b) of the Telecommunications Act of 1996 which “empower[s] [the Commission] to take steps to accelerate broadband deployment if and when it determines that such deployment is not reasonable and timely.”³⁸

C. PUBLIC INTEREST GOALS CAN BE MET WITHOUT THE PROMULGATION OF EXPANSIVE NEW RULES.

1. Additional Regulation of BIAS is Unnecessary to Safeguard National Security.

The Commission articulates important goals as it contemplates acting through the NPRM. NTCA submits that many of these goals can be met without the promulgation of expansive new rules, either because those issues are already addressed competently in existing regimes, or because more limited measures will be as effective as sweeping changes. As described above, the lodestars of BIAS public policy as facilitated through Commission action are universal service, consumer protection, and the ability of small ISPs to access transit and transport facilities. As also described above, narrowly tailored regulatory backstops are appropriate to ensure the ability of small ISPs to access critical facilities. And, as noted above, universal service programs have contributed substantially to the extensive deployment of broadband facilities throughout the Nation and are currently the subject of current Commission efforts aimed at refining them to better meet future needs. The Commission itself points to numerous coordinated measures that result in increased broadband availability in the marketplace, including, but not limited to, high-cost universal service support; improved mapping; and the prospect of funding through the

³⁸ 47 U.S.C. § 706(b).

BEAD program.³⁹ NTCA submits that consumer protection can similarly be assured without sweeping reform, but rather through existing standards which themselves have demonstrated evolutionary capabilities to meet changing needs.

The Commission asserts in the NPRM that reclassification would “enhance the Commission’s ability to safeguard national security and protect public safety.”⁴⁰ The Commission does not, however, provide any explanation for how existing rules or frameworks fall short of accomplishing this important objective. Instead, the Commission asks commenters to demonstrate *if* and how reclassification would: (a) “protect the nation’s communications networks from entities that pose threats to national security and law enforcement;”⁴¹ (b) “increase law enforcement agencies’ ability to seek lawful assistance, including identification and disruption of illegal activity for investigations involving ISP networks;”⁴² (c) “support the Commission’s efforts to safeguard the nation’s communications network infrastructure from equipment and services that pose a security threat;”⁴³ (d) “reinforce the Commission’s authority to support its efforts to enhance cybersecurity in the communications sector;”⁴⁴ and (e) provide

³⁹ *Connect America Fund: A National Broadband Plan for Our Future High-Cost Universal Service Support; ETC Annual Reports and Certifications; Telecommunications Carriers Eligible to Receive Universal Service Support; Connect American Fund – Alaska Plan; Expanding Broadband Service Through the ACAM Program: Report and Order; Notice of Proposed Rulemaking, and Notice of Inquiry*, Docket Nos. 10-90, 14-58, 09-197, 16-271, RM-11868, FCC 23-60, at paras. 4-10 (2023).

⁴⁰ NPRM at para. 21.

⁴¹ *Id.* at para. 27.

⁴² *Id.* at para. 28.

⁴³ *Id.* at para. 29.

⁴⁴ *Id.* at para. 30.

the Commission with additional authority to address Border Gateway Protocol (BGP) vulnerabilities.”⁴⁵

The Commission already has rules to guard against threats to national security. For example, pursuant to the Secure and Trusted Communications Networks Act of 2019 (Secure Networks Act), the Commission adopted rules identifying communications equipment and services deemed to pose an unacceptable risk to national security (Covered List) and prohibiting the use of Federal subsidies made available through any Commission programs for the provision of advanced communications services to purchase, rent, lease or otherwise obtain any such equipment or service.⁴⁶ Consistent with these rules and other measures that already convey it such authority, the Commission has prohibited the authorization of any equipment on the Covered List through the Commission’s equipment authorization program;⁴⁷ required winning bidders of the Rural Digital Opportunity Fund auction to certify that they do not use any communications or services contained on the Covered List;⁴⁸ and prohibited USF recipients from using funds to “maintain, improve, modify, or otherwise support their communications networks

⁴⁵ *Id.* at para. 31.

⁴⁶ *See, Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Second Report and Order, 35 FCC Rcd 14284 (2020).

⁴⁷ *See, Protecting Against National Security Threats to the Communications Supply Chain through the Equipment Authorization Program*, ET Docket No. 21-232, Report and Order, Order, and Further Notice of Proposed Rulemaking (Nov. 25, 2022) (Equipment Authorization Order).

⁴⁸ *See, e.g., Rural Digital Opportunity Fund Support Authorized for 466 Winning Bids*, AU Docket No. 20-34, Public Notice, DA 21-1158 (Sep. 15, 2021).

generally.”⁴⁹ The Commission also updates the Covered List as appropriate and consistent with the Secure Networks Act to guard against any changes in threats to national security.⁵⁰

With respect to the Commission’s query regarding whether additional regulation would “increase law enforcement agencies’ ability to seek lawful assistance, including identification and disruption of illegal activity for investigations involving ISP networks,”⁵¹ the Commission already has rules in place implementing the Communications Assistance for Law Enforcement Act (CALEA), which “was intended to preserve the ability of law enforcement officials to conduct electronic surveillance effectively and efficiently in the face of rapid advances in telecommunications technology.”⁵² CALEA requirements apply to common carriers, facilities-based broadband Internet access service providers, and interconnected Voice over Internet Protocol (VoIP) service providers.⁵³ Pursuant to rules adopted by the Commission, providers must have policies and procedures in place to allow for timely and lawful intercepts by law enforcement, including designation of one or more officers or employees who can be contacted

⁴⁹ *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs: Report and Order, Further Notice of Proposed Rulemaking, and Order*, Docket No. 18-89, 34 FCC Rcd 11423, at para. 71 (2019).

⁵⁰ See, e.g., Public Notice, “Public Safety and Homeland Security Bureau Announces Additions to the List of Equipment and Services Covered by Section 2 of the Secure Networks Act,” Docket No. 18-89, DA 22-979, (Sep. 20, 2022); Public Notice, “Public Safety and Homeland Security Bureau Announces Additions to the List of Equipment and Services Covered by Section 2 of the Secure Networks Act,” Docket No. 18-89, DA 22-320 (Mar. 25, 2022).

⁵¹ *Id.* at para. 28.

⁵² *Communications Assistance for Law Enforcement Act: Report and Order*, Docket No. 97-213, at para. 3 (Mar. 15, 1999).

⁵³ See, *Communications Assistance for Law Enforcement Act and Broadband Access and Services; First Report and Order and Further Notice of Proposed Rulemaking*, 20 FCC Rcd 14989 (2005). Earlier this year, the Commission proposed expanding CALEA’s requirements to applicants for new or renewal of International Section 214 authority. See *Review of International Section 214 Authorization to Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks: Order and Notice of Proposed Rulemaking*, Docket No. 23-119, at para. 85 (Apr. 25, 2023).

by law enforcement when necessary to conduct surveillance requests. Providers must also submit these policies and procedures to the Commission, which the Commission reviews to ensure compliance.⁵⁴

Additionally, the Cybersecurity and Infrastructure Security Agency (CISA) exercises its authority under the Homeland Security Act⁵⁵ to issue administrative subpoenas to critical infrastructure entities, which includes broadband providers, to obtain information necessary to identify and notify entities of vulnerabilities in their system. By way of example, during 2021, CISA issued 47 administrative subpoenas to identify owners or operators of a total of 221 vulnerable devices. Using information received in response to these subpoenas, CISA was able to identify 67 owners or operators for 155 vulnerable devices.⁵⁶ In January 2023, pursuant to a directive contained in the Cyber Incident Reporting for Critical Infrastructure Act of 2022,⁵⁷ CISA expanded these efforts into a Ransomware Vulnerability Warning Pilot pursuant to which CISA uses information obtained from administrative subpoenas and other sources to proactively identify information systems that contain security vulnerabilities commonly associated with ransomware attacks. Once CISA identifies affected systems, CISA personnel notify system owners of their security vulnerabilities to allow for mitigation before damaging intrusions occur.⁵⁸

⁵⁴ The Commission updated these rules in May 2023, requiring providers to file their policies and procedures electronically, to better ensure timely filing of new and updated practices. *Communications Assistance for Law Enforcement Act and Broadband Access and Services: Order*, Docket No. 22-217 (May 15, 2023).

⁵⁵ 6 U.S.C. § 659(p).

⁵⁶ See, “CY2021 Administrative Subpoena for Vulnerability Notification Year in Review,” Cybersecurity & Infrastructure Awareness Agency (https://www.cisa.gov/sites/default/files/2023-01/CY2021_Admin_Subpoena_Summary_Factsheet_FINAL.pdf) (accessed Nov. 29, 2023).

⁵⁷ 6 U.S.C. § 652.

⁵⁸ See, “Ransomware Vulnerability Warning Pilot,” Cybersecurity & Infrastructure Awareness Agency (<https://www.cisa.gov/stopransomware/Ransomware-Vulnerability-Warning-Pilot>) (accessed Nov. 29, 2023).

Accordingly, the Commission and CISA already have rules and mechanisms in place to ensure law enforcement has ready access to communications delivered across broadband and other services as well as to identity, and take prompt measures to disrupt vulnerabilities in networks of all types. Nowhere does the NPRM suggest that these rules and mechanisms are insufficient or not working as intended or that additional regulation would remediate supposed infirmities. The need for the Commission to promulgate new rules to fulfill the same purpose therefore remains unclear at best.

In response to the Commission’s question regarding how the prospect of new regulations would “support the Commission’s efforts to safeguard the nation’s communications network infrastructure from equipment and services that pose a security threat,”⁵⁹ the Commission has already undertaken significant actions to effectuate this objective, both through the “rip and replace” and Covered List actions described *infra*, but also through recently adopted rules that modify the requirements for equipment authorization. Specifically, “to protect the security of America’s critical communications networks and equipment supply chain,”⁶⁰ the Commission revised its rules to require all applicants for equipment certification to attest in their applications that the equipment for which they seek certification is not included in the Covered List.⁶¹ The Commission’s rules further require any entity identified on the Covered List as producing “covered” equipment to follow the updated procedures when seeking an equipment certification.⁶²

⁵⁹ NPRM at para. 29.

⁶⁰ Equipment Authorization Order at para. 1.

⁶¹ *Id.* at para. 3.

⁶² *Id.*

Next, the NPRM tentatively concludes that action here would put the Commission in a position to enhance cybersecurity across communications services. NTCA fully recognizes and supports the importance of good cybersecurity practices among communications providers. NTCA has been actively engaged in cybersecurity and supply chain industry working groups, including the Information and Communications Technology Supply Chain Risk Management (ICT-SCRM) Task Force and the Communications Security, Reliability and Interoperability Council (CSRIC) VIII - Best Practices to Improve Communications Supply Chain Security, and offers CyberShare: The Small Broadband Provider ISAC as a cybersecurity information sharing program for small broadband providers. Most recently, NTCA launched a new awards program, the NTCA Cyber Champion Award, to recognize NTCA member companies who are committed to mitigating risks to their networks, assets and sensitive customer information. Thus, while NTCA supports cybersecurity best practices, the *NPRM* remains unclear as to where broadband providers are not undertaking efforts to adopt and implement such practices. Furthermore, as with the other methods the Commission has identified in the *NPRM* as important to national security and public safety, the Commission has similarly adopted rules to further broadband providers' cybersecurity practices. In particular, the Commission adopted rules in July requiring entities that elected Enhanced ACAM support to adopt and implement cybersecurity and supply chain risk management plans and to update those plans when necessary to reflect, for instance, changes in certain cybersecurity practices.⁶³

Finally, the Commission requests comment on the need for additional authority to address border gateway protocol (BGP) vulnerabilities.⁶⁴ The National Cybersecurity Strategy

⁶³ *Connect America Fund: A National Broadband Plan for Our Future High-Cost Universal Service Support: Report and Order, Notice of Proposed Rulemaking, and Notice of Inquiry*, Docket No. 10-90, at paras. 109 - 112 (2023)

⁶⁴ NPRM at para. 31.

Implementation Plan (Cyber Implementation Plan) released in July 2023, expressly directs stakeholders and the federal government to engage in “close collaboration” to “develop a roadmap to increase the adoption of secure Internet routing techniques and technology...”⁶⁵

Consistent with that directive and building upon comments received in response to the Commission’s Notice of Inquiry related to BGP security,⁶⁶ the Commission conducted a public workshop earlier this year to learn what steps broadband and cloud providers have taken to improve BGP security and to explore what these providers can continue to do to enhance internet routing security.⁶⁷ That approach has allowed providers to share with the Commission not only the complexity of implementing BGP in their respective networks but also the vast differences among networks. Furthermore, as demonstrated during the public workshop, while protecting internet traffic from being diverted for malicious purposes is important to national security and public safety, broadband providers alone cannot make the internet secure. Instead, reducing the risk of malicious actors rerouting internet traffic must be undertaken by all industries, including the federal government – a process recognized by the National Cyber Plan in directing multiple federal agencies to contribute to a secure Internet routing initiative.⁶⁸ Given this complexity, along with a lack of a one-size-fits-all solution, the public would be best served by the Commission and other federal agencies continuing to work with their respective stakeholders to

⁶⁵ National Cybersecurity Strategy Implementation Plan, Initiative Number: 4.1.5 (July 2023), (https://www.whitehouse.gov/wp-content/uploads/2023/07/National-Cybersecurity-Strategy-Implementation-Plan-WH.gov_.pdf) (accessed Nov. 29, 2023) (“Cyber Implementation Plan”).

⁶⁶ *Secure Internet Routing: Notice of Inquiry*, Docket No. 22-90 (Feb. 28, 2022).

⁶⁷ *See*, Public Notice, “Public Safety and Homeland Security Bureau to Host Public Workshop on Border Gateway Protocol Security on July 31, 2023,” Docket No. 22-90 (June 16, 2023).

⁶⁸ *See*, Cyber Implementation Plan at 38.

raise awareness of the issue along with steps that can be taken to increase BGP security among all types of network owners.

2. Additional Regulation of BIAS is Unnecessary for Consumer Protection or Privacy Purposes.

The Commission invokes increased reliance on BIAS to support telehealth, elder care, and home security applications.⁶⁹ To be sure, this is a burgeoning market as broadband-enabled applications and devices to support elder care and aging in place include appliance and medication monitors; security systems; and sensors and connected assistive devices that can track user performance as well as trigger emergency notifications.⁷⁰ Data indicate that the prevailing barriers to access are household income and educational attainment; age, too, plays a role in broadband engagement.⁷¹ Moreover, perceived value plays a significant role in adoption. However, the NPRM does not suggest how additional regulation would specifically enhance or otherwise improve user experiences or engagement.

In similar vein, additional regulation by the Commission is unnecessary to protect user privacy. The Federal Trade Commission (FTC) boasts a successful record of enforcement of privacy violations as reflected in numerous administrative (and affirmed by many judicial) decisions. A growing body of case law demonstrates existing, enforceable perspectives on privacy across a wide swath of industry sectors including communications technology.

⁶⁹ NPRM at para. 38.

⁷⁰ See, Rachel Cericola, “The Best Smart Home Devices to Help Aging in Place,” Wirecutter/New York Times (Sep. 18, 2023) (<https://www.nytimes.com/wirecutter/reviews/smart-home-for-seniors/>) (accessed Dec. 3, 2023).

⁷¹ Laura B. Plunkett, “It’s Time to Address Broadband Connectivity Issues for Older Adults,” National Council on Aging (Jul. 9, 2021) (<https://www.ncoa.org/article/its-time-to-address-broadband-connectivity-issues-for-older-adults>) (accessed Dec. 3, 2023); see, also, Seidemann, Joshua, and Barboza, Roxanna, *Rural Imperatives in Broadband Adoption and Digital Inclusion*, Smart Rural Community (2021) (<https://www.ntca.org/sites/default/files/documents/2022-03/src-whitepaper-broadband-adoption-and-digital-inclusion.pdf>) (accessed Dec. 11, 2023).

An introduction to a Columbia Law Review article is instructive:

. . . in practice, FTC privacy jurisprudence has become the broadest and most influential regulating force on information privacy in the United States – more than nearly any privacy statute or any common law tort. . . . the FTC’s privacy jurisprudence is functionally equivalent to a body of common law . . . a common view of the FTC’s privacy jurisprudence is that it is thin, merely focusing on enforcing privacy promises. In contrast, a deeper look at the principles that emerge from FTC privacy ‘common law’ demonstrates the FTC’s privacy jurisprudence is quite thick. The FTC has codified certain norms and best practices and has developed some baseline privacy protections. . . .⁷²

Indeed, a substantial and growing library of administrative and judicial decisions paints a comprehensive portrait of best practices for industry.⁷³

Critics of the FTC call it weak and ineffective – ‘[l]ow-[t]ech, [d]efensive, [and] [t]oothless’ in the words of one critic. But many privacy lawyers and companies view the FTC as a formidable enforcement power, and they closely scrutinize FTC actions in order to guide their decisions.⁷⁴

The FTC’s current processes and capabilities provide a foundational bulwark against bad behavior.⁷⁵ In contrast, there is no apparent basis to suggest that specific Commission action here is necessary. A BIAS provider obtains information about a user only when that customer is using the service. In contrast, firms that are capable of “cross network” and “cross device” monitoring

⁷² Daniel J. Solove & Woodrow Hartzog, *The FTC and the New Common Law of Privacy*, 114 Columbia Law Review 583 (2011) (Solove and Hartzog).

⁷³ See, i.e., *Federal Trade Commission v. Wyndham Worldwide Corp.*, 799 F.3d 236 (3d Cir. 2015) (finding lax cybersecurity constituted unfair business practice); *Federal Trade Commission, et. al., v. Vizio, et. al.*, Case 2:17cv-00758 (Dist. N.J. 2017) (settlement following collection of smart TV user data without consent); *I/M/O Goal Financial, LLC*, FTC Docket No. C-4216 (2008) (finding violations of customer information and consumer financial information rules (Gramm-Leach-Bliley) as well as 15 U.S.C. § 45 *et seq.*); *I/M/O Guidance Software, Inc.*, FTC Docket No. C-4187 (2007) (finding liability for maintaining sensitive information in clear readable text; not adequately assessing vulnerability of network and applications; not implementing readily-available defenses; failure to employ sufficient methods to detect breaches); *I/M/O Levono, Inc.*, Federal Trade Commission, Docket No. C-4636 (2018) (concerning laptops with pre-loaded “man in the middle” software that accessed user information without adequate notice); *I/M/O TaxSlayer, LLC*, Federal Trade Commission, Docket No. C-4626 (2017) (failure to adequately safeguard clients’ financial information).

⁷⁴ Solove & Hartzog at 600.

⁷⁵ To some extent, the FTC currently provides such guidance. See, i.e., “Consumer Privacy,” Federal Trade Commission (<https://www.ftc.gov/business-guidance/privacy-security/consumer-privacy>) (accessed Dec. 11, 2023).

can paint a more comprehensive image of the user that is fed by more data; ISP access to user data is not comprehensive.⁷⁶ By way of example, unless disabled, mobile Google maps can track a user’s location and store that information over a period of years.⁷⁷ And, even disabling the function will not erase past history – iOS users must initiate a five-step process to escape that tracking.⁷⁸ AI software on web platforms can analyze the content of text messages and photos in order to recommend responses to received messages, and “learn” user preferences in order to provide tailored and curated responses to inquiries.⁷⁹ The Washington Post uses cookies, web beacons, and other technologies for online tracking and advertising; the Washington Post also collects device information, “such as hardware model, IP address, device identifiers, operating system, browser type, and settings (like language and available font settings) . . . “ as well location information.⁸⁰ In the first instance, ISPs do not necessarily have greater or more expansive access to user data than content or edge providers. And, inasmuch as those entities are governed effectively by FTC standards, there is no reason to promulgate rules that would apply only to BIAS providers. Moreover, concerns about ISPs being subject to a patchwork of state regulations can be resolved *without* reclassification. Privacy is the subject of extensive

⁷⁶ Peter Swire, Justin Hemmings, and Alana Kirkland, *Online Privacy and ISPs: ISP Access to Consumer Data is Limited and Often Less than Access by Others*, Working Paper of the Institute for Information Security, Georgia Tech (Feb. 29, 2016).

⁷⁷ Matt Elliott, “Is Google Tracking You? Find Out Here,” c|net (Apr. 20, 2017) (<http://www.cnet.com/how-to/how-to-delete-and-disable-your-google-location-history>) (accessed Dec. 11, 2023).

⁷⁸ Greg Krumparak, “Google’s Location History Browser is a Minute-by-Minute Map of Your Life,” TechCrunch (Dec. 18, 2013) (<http://techcrunch.com/2013/12/18/google-location-history>) (accessed Dec. 11, 2023).

⁷⁹ *See*, “Personalization at Scale: How AI is Transforming Content Experiences,” AContentfy (Nov. 6, 2023) (accessed Dec. 11, 2023); *see, also*, Mary Hacks, “Using the Power of AI for Tailored and Personalized Experiences,” Hackernoon (Aug. 15, 2023) (<https://hackernoon.com/using-the-power-of-ai-for-tailored-and-personalized-experiences>) (accessed Dec. 11, 2023).

⁸⁰ Washington Post Privacy Policy (Jun. 30, 2023) (<https://www.washingtonpost.com/privacy-policy/>) (accessed Dec. 11, 2023).

Congressional conversations and circulating bills, including the DATA Privacy Act, the ENCRYPT Act, and the Commercial Facial Recognition Privacy Act. In the interim, the industry is managed effectively by FTC standards that apply across industry sectors. A growing body of case law provides ample guidance for ISPs, and the market can continue effectively without the need for sweeping reform and regulation.

3. Additional Regulation Focused Only on BIAS Would Chill, Rather than Stimulate, Last-Mile Network Investment.

Trends in adoption, investment, consumer satisfaction, use, and decreasing prices per unit all demonstrate a healthy market.⁸¹ The absence of complaint and adjudicated proceedings indicate that market performance and end-user experience are positive under current light-touch regulatory frameworks. Overall demand for broadband is increasing and users are demonstrating higher rates of consumption. Of course, this is not due to the current regulatory framework alone – consumer preferences, technological advancements, general economic conditions, or other factors may have contributed to outcomes. Accordingly, the impact of regulation on a market is best assessed with a counterfactual, which creates a theoretical control group that was not affected by the intervention. The outcomes modeled in the control group reveal “what would have happened” but for the intervention.

⁸¹ See, Arthur Menko, “2023 Broadband Pricing Index,” USTelecom, at 2-4 (2023) ([https://www.ustelecom.org/research/2023-bpi/#:~:text=Real%20\(Inflation%2DAdjusted\)%20Broadband,broadband%20prices%20dropped%20by%206.5%25](https://www.ustelecom.org/research/2023-bpi/#:~:text=Real%20(Inflation%2DAdjusted)%20Broadband,broadband%20prices%20dropped%20by%206.5%25)) (accessed Dec. 11, 2023); “Household Broadband Adoption Climbs to 72.4 Percent,” National Telecommunications and Information Administration (<https://www.ntia.gov/blog/household-broadband-adoption-climbs-724-percent>) (accessed Dec. 11, 2023); “Broadband Internet Adoption Moves Forward, But Digital Divide Persists,” National Telecommunications and Information Administration (<https://www.ntia.gov/blog/broadband-internet-adoption-moves-forward-digital-divide-still-persists#:~:text=Broadband%20adoption%20rates%20varied%20substantially,of%20Black%20and%20Hispanic%20households>) (accessed Dec. 11, 2023); “FTTH Broadband and the Changing Face of Customer Service,” Utilities One (Jul. 31, 2023) (<https://utilitiesone.com/ftth-broadband-and-the-changing-face-of-customer-service>) (accessed Dec. 11, 2023).

The NPRM tentatively concludes that ISP investment is not closely tied to the potential for additional regulation of BIAS specifically.⁸² There is serious concern, however, among smaller ISPs particularly regarding the burdens that could arise from substantial new rules that go beyond existing light-touch regulations or could empower future notices that explore such measures in more detail.⁸³ Stated simply, the prospect of more intrusive *ex ante* regulation of last-mile retail ISPs – especially through amorphous “general conduct” standards that impose duties owed to unknown third parties – is not viewed as favorable to investment or return on investment. Such concerns are further exacerbated by the fact that smaller ISPs that already lack bargaining power would be subject to asymmetric regulations with respect to basic constructs like blocking and the seamless exchange of data across networks and platforms. NTCA submits that deployment in rural areas is generally not economically feasible absent the infusion of high-cost support or other sources in addition to end-user revenues and private capital. In addition to high capital expenditures expenses, providers must also address operational expenses, which include regulatory compliance. Although the NPRM suggests that it would forbear from certain provisions of Title II, even the provisions that the Commission envisions implementing at this time would likely increase regulatory compliance costs and risk diverting resources from deployment and efforts at network expansion. Accordingly, NTCA submits that these concerns support definitively narrow and targeted regulatory intervention that can address issues of potential problems in the manner described *infra* across the ecosystem in lieu of targeting *ex ante* regulations at last-mile network operators singularly.

⁸² NPRM at para. 57.

⁸³ *Id.* at para. 57.

D. IF THE COMMISSION PROCEEDS WITH RECLASSIFICATION, FORBEARANCE FROM UNIVERSAL SERVICE CONTRIBUTION REQUIREMENTS IS UNWARRANTED AND CONTRARY TO THE PUBLIC INTEREST; WOULD UNDERMINE PUBLIC POLICY OBJECTIVES THE COMMISSION REPEATEDLY ASSERTS ARE IMPORTANT IN OTHER CONTEXTS; WOULD UNDERMINE FURTHERANCE OF ESSENTIAL STATUTORY MANDATES; AND WOULD HARM CONSUMERS.

In the NPRM, the Commission proposes to forbear from the first sentence of section 254(d) of the Act and associated rules “insofar as they would immediately require new universal service contributions associated with” BIAS.⁸⁴ As explained below, even a cursory examination of the issues presented today and the record before the Commission on them in related proceedings indicates that this proposed forbearance: (a) lacks merit; (b) is contrary to the public interest; (c) would undermine public policy goals that the Commission consistently asserts are essential; (d) would undermine the statutory mission of universal service; and (e) would harm, rather than help, users of BIAS and other services. Rather than forbearing from the contribution obligation that would follow from reclassification, if it will proceed with such reclassification, the Commission should take this opportunity to advance the mission of universal service and put critical programs on more stable footing. As discussed below, there is also significant concern that, once forbearance is applied, it will be difficult, if not impossible, to “unforbear” – especially in light of the factual differences between 2015 and today – such that the proposed forbearance from section 254(d) in the NPRM would imperil, if not doom, future attempts at much-needed contribution reform even in the face of increasingly urgent circumstances.

To justify forbearance from a provision of the Act, the Commission must find that “enforcement of such regulation or provision is not necessary for the protection of consumers”

⁸⁴ *Id.* at para. 105.

and “forbearance from applying such provision or regulation is consistent with the public interest.”⁸⁵ Neither of these is the case when it comes to forbearance from the contribution obligations, nor does the Commission even attempt such an argument in the NPRM. Instead, the NPRM does nothing more than quote verbatim and cite to the *2015 Open Internet Order* on this point. Worse still, a review of the *2015 Open Internet Order* reveals that it provides no legal or logical basis for taking the same approach in 2023 or 2024.

The 2015 order justified forbearance in large part based upon the fact that, at that time, there was a then-three-year-old further notice of proposed rulemaking in a then-nine-year-old proceeding that was ostensibly examining contribution reform, along with a pending then-one-year-old referral to the Federal-State Joint Board on Universal Service that might warrant “a short extension” for delivery of a recommended decision.⁸⁶ Of course, the relevant notice of proposed rulemaking is now 11 years old as part of a 17-year-old proceeding – and there is no pending joint board referral and recommended decision to point to and await (pending a tentative “short extension”) as was the case in 2015. To the contrary, the Joint Board has seemingly not convened in years to discuss contribution reform and, as the Commission is well-aware, the state members of the joint board submitted their own recommendation into the record more than four years ago precisely because those state members saw “nothing productive coming from prolonging the silence between the State Members and our federal colleagues.”⁸⁷ In short, the process steps cited by the Commission as justification for punting contribution reform in 2015

⁸⁵ 47 U.S.C. § 160(a)(2) and (3).

⁸⁶ *Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, FCC 15-24 (rel. Mar. 2, 2015) (*2015 Open Internet Order*), at paras. 488-489 and n.1471 (internal citations omitted).

⁸⁷ *Federal State Joint Board on Universal Service; Universal Service Contribution Methodology; A National Broadband Plan for Our Future: Recommended Decision*, Docket Nos. No. 96-45, 06-122, 09-51 (Oct. 15, 2019) (accessed Dec. 12, 2023).

through “limited forbearance” are hardly relevant today and cannot reasonably be invoked to justify such forbearance now.

Similarly, the factual rationales that might have ostensibly underpinned forbearance from the contribution obligation in 2015 are inapplicable today. The issues presented and the record before the Commission in related proceedings make clear that application of this statutory provision *is* necessary for the protection of consumers and that forbearance is *not* consistent with the public interest. When the *2015 Open Internet Order* was released, the contribution factor was 16.8%;⁸⁸ as of the fourth quarter of 2023, the contribution factor has more than doubled to 34.5%.⁸⁹ This spike in the factor comes despite the fact that distributions through the universal service fund have been largely flat over this period, increasing from \$8.372 billion in 2015 to \$8.554 billion in 2021 (or by roughly 2%).⁹⁰ It could not be clearer that concerns with respect to contributions are not arising due to fund demand, but rather because of supply – over the same period since the *2015 Open Internet Order* was released, the contribution base has declined by 37%, from \$60.28 billion to \$37.92 billion.⁹¹ This unmistakable and dramatic change in circumstances since 2015 cannot be overlooked, and the public interest cannot reasonably be served by neglecting this issue, reinvoking forbearance, and delaying further action by allowing “the Commission to consider the issues presented based on a full record”⁹² in a docket that is almost 18 years long and counting.

⁸⁸ Universal Service Monitoring Report, CC Docket No. 96-45, 2022 (Data Received Through September 2022), (2022 USF Monitoring Report), at 18.

⁸⁹ *Proposed Fourth Quarter 2023 Universal Service Contribution Factor*, Docket No. 96-45, DA 23-843 (Sep. 13, 2023).

⁹⁰ 2022 USF Monitoring Report at 23.

⁹¹ *Id.* at 17.

⁹² 2015 Open Internet Order, at para. 488.

Beyond this analysis of how procedural history and current circumstances cut against forbearance now, the record on the underlying issue confirms substantively that the public interest would be served by expanding the contribution base to include BIAS services (whether by reclassification or via exercise of permissive authority under section 254(d)). As an initial matter, there is overwhelming consensus supporting such reform. Early last year, a broad coalition of more than 330 entities representing public interest groups, broadband service providers, anchor institutions, and consumers joined a “Call to Action” urging just the kind of reform that would be achieved if the Commission were not to forbear here.⁹³ Since then, other parties have echoed this call and supported such reform.⁹⁴ Studies submitted in the record before the Commission indicate that this step would likely reduce the contribution factor to less than 4%, thereby spreading this obligation more widely and equitably while avoiding a disproportionate transfer of the obligation to any one set of users or beneficiaries.⁹⁵ Although NTCA and many others support additional action to broaden the base *as well*, an expression of interest in examining complementary methodologies for contribution does not rise to the level of justifying forbearance from section 254(d); put another way, the standard for forbearance is not met by claims that *additional* steps might serve the public interest too.

⁹³ *See, Ex Parte* Letter from Carol Matthey, Principal, Matthey Consulting, LLC, to Marlene H. Dortch, Secretary, Commission, Docket Nos. 21-476 and 06-122 (filed Feb. 14, 2022) (“Matthey Letter”).

⁹⁴ *See, e.g.*, Reply Comments of NARUC, WC Docket No. 21-476 (filed Mar. 17, 2022), at 17-19; Reply Comments of Twilio, Inc., Docket No. 21-476 (filed Mar. 17, 2022), at 3-5; Reply Comments of USTelecom, Docket No. 21-476 (filed Mar. 17, 2022), at 5-7.

⁹⁵ Matthey Consulting, LLC, USForward Report, at 16 (as attached to the Matthey Letter); *see also See Ex Parte* Letter from Lindsay Stern, Attorney and Policy Advisor, INCOMPAS, to Marlene H. Dortch, Secretary, Commission, Docket Nos. 21-450, 21-476, and 06-122 (filed Oct. 5, 2023) (submitting a report from the Brattle Group finding a similar projected reduction in the contribution factor from such reform and noting that some consumers would realize a benefit from such reform depending upon the mix of services they procure).

Nonetheless, some will undoubtedly claim that forbearance is necessary upon reclassification because otherwise some consumers may pay more for their broadband services, which could result in consumers ceasing to subscribe to or becoming unable to procure broadband, contrary to the public interest and the Commission’s universal service objectives. For years, opponents of reform have recited this breathless mantra without any serious or disciplined economic-backed effort to examine elasticity in the broadband marketplace or to estimate the actual impact on consumers. Such claims are belied, however, by the only economic studies to examine this specific question; these studies have repeatedly confirmed that the relatively small charges that could appear on consumer bills are unlikely to have any material impact on the adoption or retention of broadband.

Specifically, in 2020, Drs. Williams and Zhao from the Berkeley Research Group examined from an economic perspective the effects of modifying the contribution base to include both voice and broadband services. This study included a robust survey of consumer preferences and sensitivities with respect to procurement of both services, and both the survey and a review of prevailing economic literature indicated that the demand for BIAS has become more inelastic – that is, less sensitive to price changes over time. The report ultimately concluded that the estimated percentage reduction in demand for broadband services was approximately 0.08% for every 1% increase in total service fees, and noted that this was a conservative estimate of impact that did not take into account any gains in broadband adoption that might be realized and sustained as a result of programs supported by universal service contributions.⁹⁶ A 2022 update

⁹⁶ NTCA-USF Study, Expert Report of Michael A. Williams, Ph.D. and Wei Zhao, Ph.D., May 7, 2020. It is telling that some of those professing such concern about the impact of a potential contribution surcharge on broadband adoption and retention are the same parties who have somehow found it hardly problematic to raise their own retail broadband prices by \$5 or more per month several times in recent years – an amount well above the likely impact of any contribution surcharge. *See, e.g., Charter raises Spectrum Internet prices by \$5 per month*, Fierce Telecom (Oct. 31, 2022) (“In a statement to Fierce, a Charter representative confirmed rack rates for its service tiers will be increasing \$5 per month. . . . The representative indicated the price increase is the first one since it implemented a \$5

to this report came to similar conclusions after reviewing more recent data and responding to arguments raised by other parties who had failed to review the survey methodology or to capture what elasticity measures in economic terms.⁹⁷ These reports make clear that the public interest generally and the Commission’s universal service objectives more specifically would be well served by reform, and that forbearance in this instance by contrast would advance neither the public interest nor protection of consumers.

Finally, the Commission must consider the long-term and broader implications of forbearing from this specific provision. In 2015, the Commission could at least in theory refer to the aforementioned joint board referral and anticipated recommended decision in structuring its forbearance as limited or temporary in nature. There is no such impending measure to which the Commission can point this time in claiming that forbearance from the contribution obligation would be temporary or limited in nature. This means any forbearance with respect to the contribution obligation cannot readily be distinguished from other forbearance that may be applied in this proceeding – which in turn calls into question whether and to what degree this specific forbearance is in fact limited or temporary and/or whether other measures of forbearance are as fixed as the Commission might assert. Put another way, in the absence of sound justification to differentiate them, it is hard to discern the basis by which the Commission might justify revisiting forbearance with respect to contribution obligations under section 254(d) while claiming that all other grants of forbearance under the order are firm and unwavering. And, if such a distinction cannot be drawn, there is real risk that by forbearing from the contribution obligation here, the Commission may be undermining, if not dooming, the prospect of any

per month hike in December 2020.”) (<https://www.fiercetelecom.com/broadband/charter-raises-spectrum-internet-prices-5-month>) (accessed Dec. 11, 2023).

⁹⁷ NTCA-USF Study, Expert Report of Michael A. Williams, Ph.D. and Wei Zhao, Ph.D., Dec. 13, 2022.

meaningful contribution reform in the future. Such an outcome could hardly be considered as serving the public interest generally or the Commission’s mandate to ensure universal service more specifically.

III. CONCLUSION

For the foregoing reasons, NTCA recommends that the Commission proceed consistent with the recommendations set forth herein.

Respectfully submitted,



By: /s/ Michael Romano
Michael Romano
Joshua Seidemann
Brian Ford
Tamber Ray

4121 Wilson Boulevard, Suite 1000
Arlington, VA 22203
(703) 351-2000
mromano@ntca.org

December 14, 2023