

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of

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Restoring Internet Freedom

)

WC Docket No. 17-108

COMMENTS BY DATA FOUNDRY, INC. AND GOLDEN FROG GMBH

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EXECUTIVE SUMMARY

The Commission does a disservice to the public by confusing and conflating terms, which are easily misinterpreted by normal consumers. We need to be very clear that regulating Internet access is not the same thing as regulating the Internet itself. The ability to **access** something is not the same as obtaining that same thing. The Commission surely knows this, since it has regulated interstate switched “access” to telephone toll service for a very long time. Switched access allows users to “access” providers of telephone toll service (IXCs), while telephone toll service allows customers to have service between different exchanges. Exchange access has different regulation than does telephone toll service, so it is clear that regulating “exchange access” is not the same as regulating “telephone toll service.” They are different products. It is the same with access to the Internet and the Internet itself. There are good reasons to regulate the transmission used to supply Internet access, or Internet access itself.

The most effective way for the Commission to protect and promote the open Internet for mass market users is to implement Open Access by focusing on the part of Internet access that is clearly “telecommunications” – the broadband transmission component – and rule that the transmission component is and should remain a Title II common carrier telecommunications service that must be made available on a standalone basis and with just, reasonable and nondiscriminatory terms. The Commission should return to the basic Open Access principles that drove *Computer Inquiry* and made the Internet possible in the first place. If standalone local broadband transmission is available to any market entrant that desires to provide mass-market retail Internet access then widespread mass-market competition for bundled Internet access service can re-emerge and the Commission will not need to regulate mass-market broadband Internet access regardless of its legal classification.

The *NPRM's* proposal to reclassify and fully deregulate broadband Internet service cannot be adopted if the underlying broadband transmission is not available on a common carrier basis. The large providers would love to have no common carrier obligations for the transmission component or bundled Internet access, but they cannot be allowed to close off their transmission networks from competitive access and then also be free to totally control the Internet access market without meaningful regulatory oversight.

The 2010 and 2015 “Net Neutrality” rules attempted to alleviate the effects of an uncompetitive last mile by regulating broadband access, but Open Access strikes at the heart of the problem by opening up the network to robust mass-market competition. Open Access would bring competition back to the mass-market Internet access market. Consumer choice would be the primary safeguard against abusive and discriminatory practices.

Open Access would deter abuse through vibrant competition. For 40 years, the Commission’s Open Access rules were the foundation of the information services market and they succeeded in fostering competition, preventing abuses, and incentivizing network investment. These are the results that the Commission seeks in this proceeding and it can best achieve them by bringing back Open Access. But if the Commission chooses to ignore history and continue its course of closing off the dominant providers’ local transmission networks from competitive access to underlying transmission, then it must retain the current rules and stick to the current Title II classification for broadband Internet access.

The *NPRM's* claim that past abuses are of no consequence and largely illusory is simply false. The D.C. Circuit expressly affirmed the prior findings of abuses. Both Data Foundry and Golden Frog have directly suffered from these abuses. We have extensively exposed them in prior proceedings. If the rules are withdrawn the incumbents will do it again. The Commission

must acknowledge that the dominant providers have the incentive and ability to abuse their market power and it must – once again – find that they will do so absent strong Title II-based rules.

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I. DESCRIPTION OF COMMENTERS

Data Foundry was founded in 1994 as Texas Networking, Inc. (“Texas.Net”) and was one of the first 50 ISPs in the United States. Texas.Net was very successful and had thousands of satisfied, loyal mass-market and enterprise customers that subscribed to dial-up and broadband service, but the FCC’s decisions described below ultimately forced the company out of the Internet access market along with several thousand other independent ISPs. Today, Data Foundry operates data centers in Austin and Houston and owns private networks in Austin, Houston, San Antonio and Dallas. Data Foundry operates carrier neutral facilities that allow edge providers and enterprise customers to have direct access to a host of IP networks.

Data Foundry’s founders were among the early few that foresaw the coming threats to an open Internet presented by tyrannical governments (such as China and Iran) and abusive telephone and cable ISPs that engaged in blocking, throttling, and extensive monitoring of Internet communications. Because of these threats, they decided to create new products that would allow ordinary people to protect their digital property and privacy and to take individual action to retain an open Internet. Golden Frog and its products are the result of this vision.

Golden Frog GmbH (“Golden Frog”) is a global service provider committed to developing applications and services that provide an open and secure Internet experience, while preserving and enhancing user privacy. Golden Frog owns and operates a global network with

private server clusters in North America, South America, Europe, Asia and Oceania with users in over 195 countries. Golden Frog owns and manages 100% of its own servers, hardware, and network to ensure the highest levels of security, privacy, and service delivery.

Golden Frog created VyprVPN – a secure personal VPN service – to help users protect themselves against efforts by commercial or governmental third parties to monitor, access, and intercept confidential, privileged, or private information. VyprVPN provides encrypted connections to the Internet to protect user privacy and security. Like other VPN providers, Golden Frog uses standards-based VPN protocols. Unlike other VPN providers, Golden Frog writes 100% of its supporting software, manages its own network, and owns the hardware enabling it to deliver the fastest VPN speeds in the world. VyprVPN has desktop applications for Windows, Mac, Linux, iOS and Android.

VPN traffic is increasingly being inspected and identified, diverted, throttled or blocked by governments, corporations, and ISPs worldwide.¹ This is particularly an issue in countries like China and Iran that actively restrict Internet freedoms, but it has also happened in the U.S. Golden Frog therefore developed a proprietary VPN technology called Chameleon that is available in the VyprVPN apps for Windows, Mac and Android and pending approval for iOS.

Chameleon is useful to VPN users that face blocking or throttling because of governmental policies in countries like China, Russia, Iran, Thailand, and Syria. It also defeats efforts by domestic ISPs that have – despite the Commission’s Open Internet rules – continued to seek out VPN traffic and apply bandwidth throttling. Chameleon works by scrambling OpenVPN packet metadata so that the connection is not recognizable as a VPN, even when deep packet inspection (DPI) is used, while still keeping it fast and lightweight. VyprVPN users are therefore

¹ See, e.g., “China Tells Carriers to Block Access to Personal VPNs by February,” Bloomberg News, July 10, 2017, available at <https://www.bloomberg.com/news/articles/2017-07-10/china-is-said-to-order-carriers-to-bar-personal-vpns-by-february>.

able to bypass restrictive networks to obtain an open Internet experience without sacrificing the proven security for which OpenVPN has long been known.

VyprVPN subscriptions skyrocketed when Congress vacated the broadband privacy rules earlier this year and purchases accelerated again when the Commission announced the plan to reverse course on its open Internet rules. Presumably there will be another huge spike if the rules are reversed or changed in ways that give the dominant ISPs more power and leeway to act against consumers' interests. Data Foundry and Golden Frog, however, believe that the public's interest is more important than our private interests,² and we strongly urge that the Commission resist the big ISPs' demands for more market power and less regulation.

Data Foundry and Golden Frog believe that the Commission should re-instate the rules that originally brought us the Internet – *Computer Inquiry*-style Open Access – but at the very least the FCC should not reverse the hard-fought open Internet rules or the Title II classification instituted in 2015.

II. REGULATING INTERNET ACCESS IS NOT THE SAME THING AS REGULATING THE INTERNET.

The Commission does a disservice to the public by confusing and conflating two different products in order to advance political or policy goals in the *NPRM*.³ We should stop the pretense that regulating Internet access is the same thing as regulating the Internet.⁴ The ability to

² We would prefer that the U.S. Government not join in the tyranny by delegating the power to close off the Internet and surveillance to a few powerful private cronies. There will always be abusive regimes in other parts of the world and there are bad actors beyond just governments and dominant ISPs, so Golden Frog will have plenty of domestic and foreign market opportunities for its privacy products. We urge the U.S. Government to do the right thing by protecting the open Internet and user privacy and will gladly suffer any lower sales that may result.

³ *In the Matter of Restoring Internet Freedom*, WC Docket 17-108, Notice of Proposed Rulemaking, FCC 17-60, 32 FCC Rcd 4434 (rel. May 23, 2017).

⁴ The linguistic trick shows up immediately in the *NPRM* in ¶3, and is then employed throughout. When the *NPRM* characterizes an Internet **access** provider as the same thing as all other "Internet service providers" (*see, e.g. NPRM* ¶¶29, 30) it purposefully and inappropriately conflates two different kinds of providers, and two different kinds of services.

access something is not the same as obtaining that something.⁵ The Commission surely knows this, since it has regulated interstate switched “access” to telephone toll for a very long time. Switched access is provided by one entity and it allows users to “access” other providers of telephone toll service (IXCs). Internet access is provided by another entity and it allows users to “access” the Internet and all of the edge providers that are available on the Internet. “Internet access” is not “the Internet” in the same way that “exchange access” is not “telephone toll.” These are different products and services and they have different regulatory regimes. There are good reasons to regulate the transmission used to supply Internet access, or Internet access itself. Doing so is not regulating “the Internet.”

III. ISOLATING THE BROADBAND TRANSMISSION COMPONENT AND USING TITLE II TO BRING BACK OPEN ACCESS IS THE BEST WAY TO PROTECT THE OPEN INTERNET, BRING BACK CUSTOMER CHOICE, PROTECT USER PRIVACY, AND HAVE COMPETITION IN ALL RELEVANT MARKETS.

The most effective way for the Commission to protect and promote the open Internet for mass-market users⁶ is to implement Open Access by focusing on the part of Internet access that is clearly “telecommunications” – the broadband transmission component. The Commission should rule that the transmission component is and should remain a Title II common carrier telecommunications service that must be made available on a standalone basis and with just, reasonable and nondiscriminatory terms. Mass-market users have fewer competitive alternatives

⁵ That is why the open Internet rules have always referred to “broadband Internet **access**.”

⁶ The current definition of broadband Internet access in Rule 8.11(a) includes “mass market retail service,” e.g., service to residential and small business customers. The NPRM does not propose to change that definition. These comments therefore address only “mass market retail” offerings and do not extend to Internet access for wholesale or “enterprise” services, or transmission products like “Business Data Services.” (BDS) Interestingly, although the Commission recently took additional deregulatory steps in the BDS proceeding it did not remove BDS from Title II. *In the Matter of Business Data Services in an Internet Protocol Environment; Technology Transitions; Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket Nos. 05-25, 16-143; GN Docket No. 13-5, RM-10593, Order Denying Stay Motion, DA 17-663, ¶¶39-46, __ FCC Rcd __ (Wireline Competition Bureau, July 10, 2017) (noting that BDS is still subject to “basic Title II common carrier regulation under sections 201, 202, and 208”).

than enterprise users, so it makes no sense to have a Title II transmission alternative for business data services, but nothing similar for residential and small business data services users.

If standalone local broadband transmission is available to any market entrant that desires to provide mass-market retail Internet access, then widespread mass-market competition for bundled Internet access service can re-emerge and the Commission will not need to regulate Internet access under Title II.

Internet access does not cleanly fall within either of the available statutory “service” definitions in Communications Act §153. It has an obvious telecommunications⁷ component – raw transmission. If raw transmission is offered on a common carrier basis, it is a telecommunications service.⁸ Internet access also involves other commonly bundled features and functions that arguably make it an information service.⁹ The Commission has therefore struggled with two basic questions ever since 1996. The ultimate question is whether Internet access is a telecommunications service or an information service. Which predominates: the “telecommunications” part or the “information” part? If Internet access is primarily telecommunications then should it be subjected to mandatory common carrier regulations.

The FCC successfully addressed these legal questions long before the 1996 amendments to the Act in the *Computer Inquiry* series of decisions.¹⁰ The revision and insertion of new

⁷ See 47 U.S.C. §153(50) [definition of “telecommunications”].

⁸ See 47 U.S.C. §153(53) [definition of “telecommunications service”].

⁹ See 47 U.S.C. §153(24) [definition of “information service”].

¹⁰ *Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Service Facilities*, Notice of Proposed Rulemaking and Tentative Decision, 28 F.C.C.2d 291 (1970), Final Decision and Order, 28 F.C.C.2d 267 (1971) (*Computer I*), *aff’d in part sub nom. GTE Service Corp. v. FCC*, 474 F.2d 724 (2nd Cir. 1973), *decision on remand*, Order, 40 F.C.C.2d 293 (1973); *Amendment of Section 64.702 of the Commission’s Rules and Regulations*, Tentative Decision, 72 F.C.C.2d 358 (1979), Final Decision, 77 F.C.C.2d 384 (1980) (*Computer II*), *recon.*, Mem. Op. and Order 84 F.C.C.2d 50 (1981), *further recon.*, Order on Further Reconsideration, 88 F.C.C.2d 512 (1981), *aff’d sub nom. Computer and Communications Industry Ass’n. v. FCC*, 693 F.2d 198 (D.C. Cir. 1982), *cert denied*, 461 U.S. 938 (1983), *aff’d on second further recon.*, Mem. Op. and Order, 56 Rad. Reg. 2d (P&F) 301 (1984); *Amendment of Section 64.702 of the Commission’s Rules and Regulations*, Report & Order, 104 F.C.C.2d 958 (1986), *recon.*, Phase I Reconsideration Order, 2 FCC Rcd 3035

definitions for “information service,” “telecommunications,” and “telecommunications” in 1996 did not require any change in approach, but a series of reinterpretations and abrupt changes occurred nonetheless.

There are two ways to fix this problem and resolve these recurring disputes once and for all. First, we could go back to *Computer Inquiry*, and reinstitute a more modern version of those rules, including the ability of unaffiliated providers to obtain raw broadband transmission under Title II on just, reasonable, and non-discriminatory terms (“Open Access”). That is the preferred result, since it would allow vigorous multi-mode competition for Internet access service to return, which would, in turn, remove any need to regulate Internet access in any manner, much less under Title II. But if the Commission is not inclined to take this step then it must retain the second-best alternative: continue Title II treatment for bundled mass-market broadband Internet access. There is no lawful third alternative that will come close to protecting mass-market retail end users from abusive and unreasonable practices. If the goal is to not regulate Internet access under Title II, then the only answer is to regulate the underlying raw transmission under Title II as a prerequisite.

The heart of “telecommunications” as defined in the 1996 amendments is “transmission.”¹¹ But that has always been the case, even before 1996. It was just that pre-1996

(1987), *further recon.*, Order on Further Reconsideration, 3 FCC Rcd 1135 (1988), *second further recon.*, Order on Second Further Reconsideration, 4 FCC Rcd 5927 (1989), *Report & Order and Phase I Reconsideration Order vacated sub nom. California v. FCC*, 905 F.2d 1217 (9th Cir. 1990), *decision on remand, Computer III Remand Proceedings: Report and Order*, 5 FCC Rcd 7719 (1990) (*Computer III*). The collective set of decisions will be called “*Computer Inquiry*”).

¹¹ See *Universal Service Contribution Methodology A National Broadband Plan for Our Future*, Further Notice of Proposed Rulemaking, 27 FCC Rcd 5381-5382 ¶42 and notes 38-41 (2012), citing 47 U.S.C. §153(50), *Petition for Declaratory Ruling that Pulver.com’s Free World Dialup is Neither Telecommunications nor a Telecommunications Service*, WC Docket No. 03-45, Memorandum Opinion and Order, 19 FCC Rcd 3307, 3312, para. 9 (2004) (“*Pulver Order*”) and *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities et al.*, CC Docket No. 02-33 et. al., Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14860-61, ¶9 (2005) (“*Wireline Broadband Internet Access Service Order*”) (emphasis added):

43. We note that, as stated above, the Act defines telecommunications as “the transmission, between or among points specified by the user, of information of the user’s choosing, without

transmission/telecommunications was called a “basic” service under *Computer Inquiry*. All common carriers were required to offer basic services – including raw transmission – on a stand-alone basis, with just, reasonable, and non-discriminatory terms. Other providers could obtain basic inputs and add “enhancements” to provide unregulated, Title I “enhanced service.” Common carriers not subject to anti-trust decrees that required structural separation could also use their own transmission inputs and offer unregulated enhanced services as well, but they always had to maintain a separate unbundled transmission offering.¹² A common carrier could not obtain deregulation by offering only “contaminated” “enhanced” services that used self-provided transmission inputs. The common carrier also had to offer the underlying transmission service on an unbundled basis.¹³

The Commission was forced to engage in legal gymnastics in the *2005 Internet Policy Statement*,¹⁴ the *2010 Open Internet Order*,¹⁵ and the *2015 Open Internet Order*,¹⁶ and it proposes to do the same thing in the current *NPRM*. The lack of true competitive mass-market retail alternatives to residential and small business users seeking broadband Internet access

change in the form or content of the information as sent and received.” The Commission has found that transmission is the heart of telecommunications, and has classified data transmission services that have “traditionally” and “typically” been used for basic transmission purposes, such as “stand-alone ATM service, frame relay, gigabit Ethernet service, and other high-capacity special access services,” as telecommunications services.

¹² “[*Computer Inquiry*] required other facilities-based common carriers to provide the basic transmission services underlying their enhanced services on a nondiscriminatory basis pursuant to tariffs governed by Title II of the Act. These carriers thus must offer the underlying basic service at the same prices, terms, and conditions, to all enhanced service providers, including their own enhanced services operations.” *In re Petitions of AT&T Inc. & BellSouth Corp. for Forbearance*, Memorandum Opinion and Order, FCC 07-180, ¶6, 22 FCC Rcd 18705, 18709 (2007).

¹³ See *IDCMA Frame Relay*, Memorandum Opinion & Order, 10 FCC Rcd 13717, 13719-720, and 13723-24, ¶¶17-18 and 42-45 (“AT&T cannot avoid its *Computer II* and *Computer III* obligations under the auspices of the contamination doctrine, which applies only to nonfacilities-based service providers”).

¹⁴ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities et al.*, GN Docket No. 00-185, CC Docket Nos. 02-33, 01-33, 98-10, 95-20, CS Docket No. 02-52, Policy Statement, 20 FCC Rcd 14986 (2005) (“*Internet Policy Statement*”).

¹⁵ *Preserving the Open Internet*, Report and Order, 25 FCC Rcd 17905, 17910, ¶13 (2010) (“*2010 Open Internet Order*”), *aff’d in part, vacated and remanded in part sub nom. Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).

¹⁶ *In the Matter of Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601 (2015) (“*2015 Open Internet Order*,” characterized as “*Title II Order*” in *NPRM*).

combined with past and future potential abuses by the dominant providers gives rise to a perceived need to impose regulation to protect the public. The only effective regulations, however, are common carriage *per se*. The courts have made clear that Title I information/enhanced services cannot be considered common carriers under the statute. That is why the Commission ultimately concluded it had to bring broadband Internet access under Title II, even though Internet access includes more than just raw transmission, and the “information” or “enhanced” components do not easily fit within the *Computer Inquiry* “adjunct to basic” definitions or the “telecommunications management” exception in the definition of “information service.” The D.C. Circuit affirmed the *2015 Open Internet Order* precisely because the common carrier regulations were premised on Title II, but it rejected the effort to apply other authority for common carrier obligations in the *2010 Open Internet Order*.

None of this confusion is necessary. There is a universally acknowledged “transmission” component. The Supreme Court made clear that the Commission is free to isolate the transmission component and regulate it alone under Title II, consistent with *Computer Inquiry* and the 1996 amendments.¹⁷ The Commission needs to focus on and heal the “heart” (transmission) and leave the rest of the Internet to thrive on its own through competitive forces.

“Net Neutrality” is a euphemism for the combination of common carrier prohibitions against blocking, throttling, and paid prioritization.¹⁸ The Commission has tried two separate times to impose Net Neutrality obligations on Internet access without using Title II, and both

¹⁷ *Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967 (2005) (“*Brand X*”).

¹⁸ The avowed purpose is to prohibit or limit access provider discretion that is inconsistent with user choice or societal goals. This is necessary precisely because access providers have the incentive and ability to act in ways contrary to the public interest and user choice in many ways. Blocking, throttling, and the anti-competitive impacts from paid prioritization are evils to be avoided. But true competition in the Internet access market can be achieved if competitive access providers can enter the market by obtaining access to local transmission under Title II. The Commission can then re-reclassify Internet access as an enhanced/information service and allow competitive forces to deter abusive behavior. This will indirectly, but more effectively, prevent abuses in the Internet access market.

efforts failed. Instead, the Commission should reclassify the transmission component of broadband Internet access and open it up to competition. In other words, bring back Open Access.

The need for Net Neutrality regulations arises entirely because predecessor Commissions took a host of steps that allowed telephone and cable companies to close off competitive access to bottleneck broadband infrastructure and services. Thousands of competitive Internet access providers that had relied on Open Access to obtain the essential transmission input disappeared. For the most part, the only providers today are those that have built their own local transmission networks. The huge investment required, along with other regulatory obstacles, municipal franchises, and access to infrastructure present significant barriers to entry.

The Commission's undoing of *Computer Inquiry* Open Access,¹⁹ along with restricted availability of broadband unbundled network elements under §251(c)(3) has effectively created a duopoly over mass-market wireline broadband access. There is now little mass-market competition for transmission *or* Internet access. In the absence of significant intra-modal competition and consumer choice that can reign in harmful broadband practices, the Commission

¹⁹ A noncomprehensive list of actions reflecting the dismemberment of *Computer Inquiry* includes *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, CC Docket No. 02-33, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) (“*WBIAS Order*”), *aff’d*, *Time Warner Telecom v. FCC*, 507 F.3d 205 (3rd Cir. 2007); *Petitions of the Verizon Telephone Companies for Forbearance Pursuant to 47 U.S.C. §160(c) in the Boston, New York, Philadelphia, Pittsburgh, Providence, and Virginia Beach Metropolitan Statistical Areas*, WC Docket No. 06-172, Memorandum Opinion and Order, 22 FCC Rcd 21293 (2007) (“*Verizon 6 MSA Forbearance Order*”); *Petitions of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. §160(c) in the Denver, Minneapolis-St. Paul, Phoenix, and Seattle Metropolitan Statistical Areas*, WC Docket No. 07-97, Memorandum Opinion and Order, 23 FCC Rcd 11729 (2008) (“*Qwest 4 MSA Forbearance Order*”); *Petition of AT&T, Inc. for Forbearance Under 47 U.S.C. §160(c) from Title II and Computer Inquiry Rules with Respect to its Broadband Services*; *Petition of BellSouth Corporation for Forbearance 47 U.S.C. §160(c) from Title II and Computer Inquiry Rules with Respect to its Broadband Services*, WC Docket No. 06-125, Memorandum Opinion and Order, 22 FCC Rcd 18705 (2007); *Verizon Telephone Companies’ Petition for Forbearance from Title II and Computer Inquiry Rules with Respect to their Broadband Services Is Granted by Operation of Law*, WC Docket No. 04-440, News Release (rel. Mar. 20, 2006); *Petition of the Verizon Telephone Companies for Forbearance under 47 U.S.C. §160(c) from Title II and Computer Inquiry Rules with Respect to Their Broadband Services*, WC Docket No. 04-440, Order, 20 FCC Rcd 20037 (2004); *Qwest Petition for Forbearance Under 47 U.S.C. §160(c) from Title II and Computer Inquiry Rules with Respect to Broadband Services*, WC Docket No. 06-125, Memorandum Opinion and Order, 23 FCC Rcd 12260 (2008); *In re Petition of USTelecom for Forbearance et al.*, 28 FCC Rcd 7627 (2013).

has had to try and directly regulate Internet access with Net Neutrality rules to protect consumers for the past twelve years.

The Internet developed into an open platform because the essential underlying facilities and services were themselves open to competition. The move away from Open Access and competition on the underlying network killed off all the competition, and that is the direct cause of the current set of problems. The duopoly providers now have no competitive restraints. The D.C. Circuit upheld the Commission's prior finding that they have the incentive and the means to act in ways contrary to the public interest.²⁰ In an effort to rectify these evils, the Commission chose to regulate Internet access providers through Net Neutrality rules, rather than taking the step of re-opening the network by returning to the Open Access rules that allowed the Internet to flourish from the beginning.

The Commission's explanation for excluding dial-up Internet access from Title I reclassification the *2010 Open Internet Order* directly illustrates that this is so. The Commission explained that competitive forces and regulation of the underlying transmission component protected dial-up service from monopoly abuses and the *Order's* Net Neutrality rules were therefore unnecessary.

[T]he easy ability to switch among competing dial-up Internet access services. Moreover, the underlying dial-up Internet access service is subject to protections under Title II of the Communications Act. The Commission's interpretation of those protections has resulted in a market for dial-up Internet access that does not present the same concerns as the market for broadband Internet access.²¹

This statement acknowledges that Open Access and a competitive marketplace is preferable to Net Neutrality rules. If the Commission reinstates Open Access on the last mile

²⁰ *United States Telecomms. Ass'n v. FCC*, 825 F.3d 674, 694 (D.C. Cir. 2016) ("*USTA Panel Decision*"), *reh. den.* 855 F.3d 381 (2017) ("*USTA en banc Denial*"), *referring to Verizon v. FCC*, 740 F.3d 623, 645-647 (D.C. Cir. 2014).

²¹ *2010 Open Internet Order*, 25 FCC Rcd at 17935, ¶51.

transmission networks, then the underlying concerns will go away and regulation of bundled Internet access services will not be necessary.

The Commission should also determine – now that experience has been gained and lessons learned – that Justice Scalia’s dissent in *Brand X* was right: “the telecommunications component of cable-modem service retains such ample independent identity that it must be regarded as being an offer.”²² The Commission now has the experience to find that a course-reversal is indicated and the transmission component *can and should be* regarded as a separate offering. The transmission component should be isolated and brought back under Title II, all of the *Computer Inquiry* waivers and forbearance decisions should be reversed, and the Commission should restore Open Access.

The Commission does not have to directly regulate the bundled Internet access product. That product can plausibly remain an unregulated, non-common carrier information service – even when offered by the infrastructure owner or an affiliate – so long as the transmission component is available to unaffiliated parties on just, reasonable, and non-discriminatory terms, equal to those applicable to its affiliate. While structural separation would be preferable, it is not mandatory. Nonstructural safeguards can be crafted that would allow the infrastructure owners to offer the bundled information service if the underlying transmission is available to others on an unbundled basis.

The Commission should acknowledge its prior decisions to close off the network were based on predictive judgments that time has shown were incorrect. The Commission should reverse course, reinstate *Computer Inquiry* open network principles and once again embrace and

²² *Nat’l Cable & Telecomms. Ass’n. v. Brand X Internet Servs.*, 545 U.S. 967, 1008 (2005) (Scalia, J., dissenting).

implement Open Access to transmission. Doing so is a preferable and less intrusive way to ensure an open Internet in the United States.

A. Open Access Defined and Contrasted with Net Neutrality.

There is a significant difference between “Open Access” and “Net Neutrality” as that phrase has been applied in the United States. Whereas Open Access creates alternatives to cable- or telco-affiliated ISPs at the physical and logical layer, Net Neutrality focuses on protecting competition at the application and content layers. Net Neutrality is a remedy for evils that arise in the absence of Open Access and competition in the broadband marketplace.

The Commission unwisely abandoned Open Access when it closed off competitive access to the transmission facilities deployed by the incumbent telephone and cable companies. The about-face from the Open Access policies established in the *Computer Inquiry* trilogy began in the late 1990s and has continued to date, through a series of cases restricting enhanced/information service providers’ ability to obtain access to infrastructure directly under *Computer Inquiry* and indirectly through competitive LECs that can no longer obtain broadband §251(c)(3) unbundled network elements (UNEs) and resell them to enhanced/information service providers.

Past Commissions took these actions despite the fact that the current Communications Act was almost entirely premised on competitive access to unbundled monopoly or duopoly transmission facilities, the epitome of Open Access.²³ Much of the rest of the world followed the original American model and embraced Open Access – probably because the U.S. Government

²³ The Commission expressly so noted in *In the Matter of Amendment of the Commission’s Rules to Establish Competitive Service Safeguards for Local Exchange Carrier Provision of Commercial Mobile Radio Services Implementation of Section 601(d)*, NPRM, Order on Remand and Waiver Order, FCC 96-310 ¶10, 11 FCC Rcd 16639, 16646 (1996). The D.C. Circuit expressly agreed with this proposition in the *USTA Panel Decision* at 690, 691.

urged them to do so,²⁴ and they have retained it even after the Commission reversed course. There is far more competition, better and faster Internet capabilities, and lower prices overseas where regulators have maintained the Open Access policies originally developed here that the FCC urged them to establish.

The Commission has equated Open Access with multiple-ISP access in the context of cable networks, but the concept of Open Access truly arose in the wireline context under *Computer Inquiry*. In particular, Open Access was the shorthand term for the ability of unaffiliated enhanced service providers to obtain telecommunications inputs from LECs in the form of “Open Network Architecture” (“ONA”).²⁵ For fixed networks, Open Access policies usually take the form of regulated access, such as local loop unbundling, dark, grey and lit fiber and other wholesale access products. These products use derived capacity such as digital and optical carrier (DSx, OSx), as well as other capacity-based offerings like Ethernet, and can also include next layer (e.g., bitstream) services. Policy makers and regulators in most countries realize that these infrastructure elements represent a major barrier for the entry of alternative ISPs without mandatory access.

Net Neutrality is not Open Access. Indeed, Tim Wu, who is credited with crafting the Net Neutrality concept, took great pains to distinguish Net Neutrality from Open Access in his

²⁴ See Press Release, United States Urges EU to Continue Progress in Opening Communications Market To Competition, 2000 FCC LEXIS 1383 (2000), available at http://www.fcc.gov/Bureaus/International/News_Releases/2000/nrin0005.doc (“In order to harness the full power of the Internet, we urge EU Member State regulators to **Open Access** of local networks to competitive suppliers of Digital Subscriber Lines and other innovative technologies.”) (emphasis added).

²⁵ The Commission and courts have used the phrase “open access” to describe the Computer Inquiry regime. See *California v. FCC*, 4 F.3d 1505, 1512 (9th Cir. 1993); cited in In the Matter of Computer III Further Remand Proceedings: Bell Operating Company Provision of *Enhanced Services*; 1998 Biennial Regulatory Review -- Review of Computer III and ONA Safeguards and Requirements, Further NPRM, FCC 98-8, ¶25, note 70, 13 FCC Rcd 6040, 6056 (1998); Robert Pepper, Through the Looking Glass: Integrated Broadband Networks, Regulatory Policies, and Institution Change, OPP working Paper 24, ¶¶71-73, DA 88-1855, 4 FCC Rcd 1306, 1314-1315, (November, 1988); United States Urges EU to Continue Progress in Opening Communications Market To Competition, *supra*.

original paper that introduced the topic.²⁶ Open Access is about opening essential infrastructure to competition. Net Neutrality accepts that there is no Open Access, and regulates Internet access rather than the essential facilities.

The 2005 Commission wrongly concluded that removing Open Access would further incent the telephone companies and cable companies to invest in broadband transmission.²⁷ The promises made by the dominant providers were simply broken. The only true outcome from eliminating Open Access was that the incumbents were able to secure dominance and control over the transmission market and the adjacent Internet access market, and both became susceptible to abuses of market power. After the abuses became manifest, the 2010 and 2015 Commissions tried to apply Net Neutrality as a palliative band-aid to mask the fact that eliminating Open Access removed the possibility for intra-modal competition in the Internet access market.

It is time for the Commission to bring back Open Access and competition in the broadband market. Net Neutrality to date has not cured the disease, and it has led to never-ending legal and policy problems.

B. Forty years ago, the Commission led the world and created a new Open Access framework.

Over 40 years ago, the Commission instituted Open Access primarily through the original service unbundling rules established in the seminal *Computer Inquiry* trilogy. Other competition-

²⁶ Prof. Tim Wu, Network Neutrality, Broadband Discrimination, Journal of Telecommunications and High Technology Law, Vol. 2, p. 141 (2003). Available at SSRN: <http://ssrn.com/abstract=388863>. Wu's paper appears to equate "Open Access" with "structural separation." See, e.g., *id.* at 148 ("The term open-access is used in many different ways; it generally refers to a structural requirement that would prevent broadband operators from bundling broadband service with Internet access from in-house Internet service providers.") Open access, however, is possible even in the absence of structural separation. For example, *Computer III* replaced structural separation with accounting safeguards, but retained Open Access. *Computer Inquiry* allowed the incumbents to bundle their own offering, so long as they had an unbundled offering available to third party providers.

²⁷ See, e.g., *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, 20 FCC Rcd 14853, 14855, 14860, and 14877-878, ¶¶1, 19, and 44 (2005) ("*DSL Reclassification Order*").

enhancing efforts dealing with customer premises equipment and inside wiring were adopted by the Commission and Congress and approved by the courts. All of these actions were based on Open Access concepts. Other federal and state agencies applied the same concepts to the energy industry, resulting in tremendous competition and consumer benefits.²⁸ Open Access set the stage for the explosive growth of the Internet. Much of the world followed the Commission's lead – at the Commission's urging.

The *Computer Inquiries*' Open Access model was deregulatory, but did not eschew Title II regulation where widespread competition did not exist or was not truly feasible. The first step was to isolate monopoly telecommunications components, and impose regulation on the monopoly activity – and that activity only. The regulations made non-competitive components available to users and potential entrants in order to allow competition to thrive where it was possible. The second step was to deregulate value-added enhanced service markets that rely on telecommunications inputs, but are not themselves telecommunications *and* can be competitive if bottleneck telecommunications inputs are available on a nondiscriminatory basis.

The *Computer Inquiries* spurred the rise of unregulated value-added networks that had specific rights to access facilities, such as local plants, so they could provide “enhanced services.” Those decisions directly and inexorably led to the rise of the Internet.²⁹ The

²⁸ Electric and gas transmission Open Access has reduced wholesale prices for energy, and the cost reduction input has flowed to retail customers. On the electric side it has much contributed to the growth of solar and wind power as an alternative to carbon fuels and nuclear. The same concept has also directly benefitted retail energy customers, because the principle has also allowed retail customers to “attach” solar and gas self-generation to the electric grid, allowing them to self-generate but also receive standby and back-up and sell excess energy. In many respects this is akin to the original Policy Statement that “consumers are entitled to connect their choice of legal devices that do not harm the network.” *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 20 FCC Rcd 14986, 14988 (2005). Consumer attachment rights arose from *Hush-a-Phone*, *Hush-a-Phone Corp. v. U.S.*, 238 F.2d 266 (D.C. Cir. 1956), and *Carterphone*, *In the Matter of Use of the Carterfone Device*, 13 F.C.C.2d 420 (1968), but the *Computer Inquiries* also advanced attachment rights by deregulating CPE and inside wire while maintaining regulations enforcing the attachment right, including the Part 68 process.

²⁹ Edge providers are predominately non-carriers, and most do not own extensive transmission networks. Some do have some privately-owned transmission, but they still much resemble the “Value Added Networks” discussed in *Computer Inquiry* although their primary function is no longer protocol conversion. All exist entirely as a result of

Commission itself – until relatively recently – repeatedly emphasized that the Internet as we know it would not exist but for the *Computer Inquiry* Open Access rules.³⁰

Net Neutrality is perceived as needed today only because the Commission decided to abandon the prior Open Access rules that had been in place for almost 40 years and had served as the foundation upon which the open Internet was able grow into a primary communications tool. This decision to eliminate Open Access directly led to all of the problems and evils the Commission has attempted to fix since.

C. Congress adopted, applied, and extended Open Access in the 1996 amendments.

Congress adopted and reaffirmed the *Computer Inquiry* service unbundling model in the 1996 amendments, and then further extended it through the interconnection and facility unbundling requirements in §§251 and 252.³¹ The legislative history compellingly shows that

Computer Inquiry because that set of proceedings ensured these entities had direct or indirect Open Access to bottleneck transmission and did not suffer unnecessary regulation.

³⁰ A fine collection of such observations appears in The FCC and the Unregulation of the Internet, FCC OPP Working Paper No. 31, July 31, 1999, available at http://transition.fcc.gov/Bureaus/OPP/working_papers/oppwp31.pdf:

Open access across the telecommunications network has driven the deployment of innovative and inexpensive Internet access services. ... the growth and continued success of the Internet, and the ability of market forces to sustain and encourage that growth, can be attributed to one basic attribute: the openness of both the Internet and the underlying telecommunications infrastructure. ... To the extent that the Internet has relied on the openness of this nation's communications infrastructure to reach all corners of this nation, this ingredient in its success has not been an accident. The FCC has taken numerous steps since the early days of the telecommunications data services industry three decades ago to permit competitive forces, not government regulation, to drive the success of that industry. As discussed in greater detail below, the success of the Internet today is, in part, a direct result of those policies. ... First, the Commission noted that data processing services required common carrier facilities and services as necessary inputs, and common carriers that offered their own data services would have the ability and incentive to discriminate against unaffiliated data service providers by denying them access to fairly priced telecommunications services. Second, the Commission noted that common carriers might improperly cross-subsidize their unregulated data processing services with rate-regulated common carrier revenues.

³¹ “Much of the structure of the current regulatory scheme derives from rules the Commission established in its 1980 *Computer II* Order... Congress, borrowing heavily from the *Computer II* framework, enacted the Telecommunications Act of 1996, which amended the Communications Act.” *United States Telecomms. Ass’n v. FCC*, 825 F.3d 674, 690, 691 (D.C. Cir. 2016) (“*USTA Panel Decision*”), *reh. den.* 855 F.3d 381 (2017) (“*USTA en banc Denial*”); *In the Matter of Amendment of the Commission’s Rules to Establish Competitive Service Safeguards*

Congress was basically adopting Open Access as a model in order to facilitate competition that used monopoly inputs.³² But soon after 1996, the Commission abandoned the Open Access policies it had established by serially closing the network, despite Congress's clear policy supporting Open Access.

The 1996 amendments adopted and reaffirmed *Computer Inquiry* in several ways. First, the definitions in §153 employed the Open Access model by distinguishing between telecommunications services offered by carriers and information services offered by non-carriers. The former retained Title II common carrier obligations, but the latter received virtually no regulation. Congress maintained Open Access by preserving existing “information access” obligations in §251(g), as well as the right to attach end-user equipment that has been properly registered. Section 257(a) required the Commission to identify and remove entry barriers facing information service providers, and also addressed “provision of parts or services to providers of ... information services.” Second, Bell Operating Companies’ pathways for entry into the information service market (interLATA information services, electronic publishing and alarm monitoring), which were still denied them at the time, employed both structural separation and accounting safeguards quite similar to those arising from *Computer II* and *Computer III*, including nondiscriminatory access by unaffiliated information service providers.³³

Congress used a modified *Computer Inquiry* Open Access framework to require “interconnection” and “facility unbundling” as a means for competitive carriers to enter and

for Local Exchange Carrier Provision of Commercial Mobile Radio Services Implementation of Section 601(d), FCC 96-310 ¶¶10, 11 FCC Rcd 16639, 16646 (1996).

³² See, e.g., Statement of Senator Pressler, “The more **open access** takes hold, the less other government intervention is needed to protect competition.” Cong. Rec. S7889 (daily ed. June 7, 1995) (statement of Sen. Pressler); Statement of Senator Hollings, “Competition is the best regulator of the marketplace. But until that competition exists, until the markets are opened, monopoly-provided services must not be able to exploit the monopoly power to the consumers’ disadvantage. Competitors are ready and willing to enter new markets as soon as they are opened.” Cong. Rec. S7984 (daily ed. June 7, 1995) (statement of Sen. Hollings).

³³ See 47 U.S.C. §§272(c)(2), 274(d), 275(d), and 276(b)(1)(C) (referencing *Computer III* “nonstructural safeguards” and adopting approach for payphone).

participate in the market. Sections 251 and 252 are modeled after *Computer Inquiry* Open Access concepts. Section 251(a) and (c)(2) require interconnection between ILECs and competing carriers. Section 251(c)(3) grants competitive carrier access to underlying facilities and infrastructure through facilities unbundling. Nothing in those provisions provides even a hint that broadband was to be excluded, or that use of a different protocol would remove anything from coverage. Instead, Section 251(h)(2) allows the Commission to bring cable companies within the regime.

Enhanced/information service providers formed a significant part of the customer base for the CLEC industry, especially after the Commission began to retreat from direct Open Access. Past Commissions then took the next step and allowed the incumbents to withdraw services and support from the CLECs in a host of ways. The result is that the dominant providers were allowed to seize mass-market Internet access market all for themselves.

D. Open Access Drives the Competitive Energy Market and has Bi-Partisan Support.

The Open Access concept is not unique to communications. For example, domestic energy regulators adopted a variant of the *Computer Inquiry* Open Access regime for gas and electric markets.³⁴ Unlike the FCC, energy regulators in the interstate and intrastate jurisdictions have not retreated.

Open Access separates the physical line from the delivery of services, so more providers than just the physical line operator can provide services over the physical line. Open Access in the deregulated electric market separates the electric distribution line going to the customer

³⁴ See, e.g., *Associated Gas Distributors v. FERC*, 824 F.2d 981, 1007 (D.C. Cir. 1987), *cert. denied*, 108 S.Ct. 1468, 1469 (1988) (upholding FERC authority to establish Open Access for gas transmission); *New York v. FERC*, 535 U.S. 1 (2002) (upholding FERC authority to establish Open Access for electric transmission); *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities*, 61 Fed. Reg. 21540 (1996).

premises from the electricity delivered over that line. Consumers can then choose between hundreds of electricity providers to supply electricity over that line. The energy Open Access regime has created immense competitive benefits and consumer savings in both interstate and intrastate jurisdictions. Energy Open Access has allowed for competition to fully bloom and has bi-partisan support. If the Commission properly articulates the move, a return to communications Open Access will also be accepted and applauded.³⁵

E. The Commission serially closed the Open Access network between 1999 and 2007.

The Commission decision to abandon Open Access is often said to stem from the *Cable Modem Declaratory Ruling*.³⁶ But it actually started before then. Since 1999, the Commission has consistently declined requests to mandate cable Open Access as a merger condition.³⁷ The Commission also declined Open Access requests when evaluating major telecommunications mergers between SBC and AT&T, Verizon and MCI, and AT&T and BellSouth.³⁸ The only time that the Commission imposed any access requirements was during AOL's acquisition of Time

³⁵ A recent poll found that 72% of Republicans believe that Internet service is a necessity like water or power and 58% believe that Internet should be treated like a utility. See <http://www.incompas.org/files/IMGEInsights-Presentations-KeyFindings-1c.pdf>.

³⁶ *Inquiry Concerning High-Speed Access to the Internet Over Cable & Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities, Declaratory Ruling and Notice of Proposed Rulemaking*, 17 FCC Rcd 4798 (2002) (“*Cable Modem Declaratory Ruling*”), *aff’d sub nom. Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967 (2005).

³⁷ See *Applications for Consent to the Assignment and/or Transfer of Control of Licenses: Adelphia Communications Corporation (and subsidiaries, debtors-in-possession), Assignors, to Time Warner Cable Inc. (subsidiaries), Assignees et al.*, Memorandum Opinion and Order, 21 FCC Rcd 8203, 8296-99, ¶¶217-223 (2006); *Applications for Consent to Transfer of Control of Licenses from Comcast Corp. and AT&T Corp., Transferors, to AT&T Comcast Corp.*, Memorandum Opinion and Order, 17 FCC Rcd 23246, 23299-301, ¶¶135-137 (2002); *Applications for Consent to Transfer of Control of Licenses and Section 214 Authorizations from MediaOne Group, Inc., Transferor, to AT&T Corp., Transferee*, Memorandum Opinion and Order, 15 FCC Rcd 9816, 9872-73 ¶127 (2000); *Applications for Consent to Transfer of Control of Licenses and Section 214 Authorizations from Tele-Communications, Inc., Transferor, to AT&T Corp., Transferee*, Memorandum Opinion and Order, 14 FCC Rcd 3160, 3205-08, ¶¶92-96 (1999).

³⁸ *AT&T Inc. and BellSouth Corp. Application for Transfer of Control*, Memorandum Opinion and Order, 22 FCC Rcd 5662, 5727-31 ¶¶116-120, 5742-46 ¶¶151-153 (2007); *Verizon Communications, Inc. and MCI, Inc. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd 18433, 18507-09 ¶¶139-142 (2005); *SBC Communications, Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd 18290, 18365-68 ¶¶140-143 (2005).

Warner. This condition was imposed at the insistence of the FTC.³⁹ The FCC, however, refused to enforce the merger condition in a complaint brought by Data Foundry's ISP predecessor company.⁴⁰

In 2002, before the *Cable Modem Declaratory Ruling*, the Commission tentatively concluded that DSL and other broadband services provided by LECs constituted "information services" not subject to Title II tariffing and common carriage requirements. The Commission sought comment on whether it should modify or eliminate *Computer Inquiry* Open Access.⁴¹ The tariff on DSL offered by SBC's Advanced Services subsidiary was cancelled the same year.⁴² Then in 2005, the Commission removed all remaining *Computer Inquiry* obligations when it deemed DSL to be an information service.⁴³

The Commission was not content to just allow the incumbents to avoid Open Access for broadband; the Commission also eliminated the §§251(c)(4) and 252(d)(3) resale arrangements

³⁹ See *Applications for Consent to Transfer of Control of Licenses and Section 214 Authorizations by Time Warner, Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee*, Memorandum Opinion and Order, 16 FCC Rcd 6547, 6568-69 ¶¶57-58 (2001); *America Online, Inc.*, No. C-3989, slip op. at 2, 6-9, 11-17 (F.T.C. Dec. 18, 2000) (Decision and Order), at <http://www.ftc.gov/os/2000/12/aoldando.pdf>.

⁴⁰ See *In the Matter of Texas Networking, Inc., Petitioner; Petition for Declaratory Ruling and Complaint*, 16 FCC Rcd 17898 (Media Bureau, 2001), Order Dismissing Application for Review, 23 FCC Rcd 6096 (2008).

⁴¹ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Notice of Proposed Rulemaking, 17 FCC Rcd 3019, 3029-33 and 3040-43, ¶¶17-24 and 43-53 (2002) ("Wireline Broadband NPRM").

⁴² *Review of Regulatory Requirements for Incumbent LEC Broadband Services*, Memorandum Opinion and Order, 17 FCC Rcd 27000 (2002).

⁴³ *Wireline Broadband Report and Order*, 20 FCC Rcd 14853, 14860-61 ¶9 & n.15, 14862-65, ¶¶12-17, 14875-79, ¶¶41-46 & n.107, 14882-98, ¶¶32-85, 14904, ¶96 (2005) petition for review denied *sub nom. Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007).

for independent ISPs⁴⁴ and overlooked reports of serious rules violations raised by independent ISPs.⁴⁵

The result of these policy decisions was that the folks that brought the Internet to the masses – independent ISPs – went out of business. They are gone because of this Commission’s decision to eliminate competition and grant additional market power to the incumbents. The lack of competition and consequent harm to consumers is entirely attributable to these decisions. Commissioner Copps persistently objected to these actions and predicted the situation we now face.⁴⁶ The current Commission cannot fairly be held responsible for these policy decisions, but

⁴⁴ The *Advanced Services Second Report and Order* applied the resale discount to DSL services offered to end users, but held it did not apply to DSL arrangements made with independent ISPs. *In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Second Report and Order, 14 FCC Rcd 19237, 19247, ¶21 (1999), *pet. for review denied sub nom Ass’n of Commc’ns Enters. v. FCC*, 253 F.3d 29 (D.C. Cir. 2001).

⁴⁵ See Texas Internet Service Providers Reply Comments, Docket 00-4 (February 22, 2000), available at <http://apps.fcc.gov/ecfs/document/view?id=6010955248>; Texas Internet Service Providers Reply Comments, Dockets 95-20 and 98-10 (April 30, 2001), available at <http://apps.fcc.gov/ecfs/document/view?id=6512566340>.

⁴⁶ For example, Commissioner Copps’ dissent to the *Broadband 271 Forbearance Order* (19 FCC Rcd at 21517-21519) has proven prescient:

The mismatch between the Commission’s broadband rhetoric and reality reaches new heights with today’s decision. ... While the country experiences broadband freefall, the Commission has embarked on a policy of closing off competitive access to last mile bottleneck facilities. ... Today, the majority pounds another nail into the coffin it is building for competition. ... [T]here is now absolutely no obligation to provide competitive access to any broadband facilities—from fiber-to-the-home to fiber-to-the curb to packetized functions of hybrid loops to packetized switching capabilities—at just and reasonable rates. [The majority] conclude[s] that the public interest is served by retreating to a policy of non-competition and last mile monopoly control. I cannot support such conclusions nor the underlying analysis.

...

One problem here is that the majority gets so carried away with its vision of the country’s telecom future that they act like it is already here, that competition is everywhere flourishing, and that intermodal competition is already ubiquitous reality. But their cheerful blindness to stubborn market reality actually pushes farther into the future the kind of competitive telecom world they say they want.

...

The lack of analysis in this proceeding—and in the Commission’s approach to broadband generally – amounts to a regulatory policy of crossing our fingers and hoping competition will somehow magically burst forth. ... if we want to enter the brave new world of broadband, we need to move away from our current course. The facts show we are headed in the wrong direction at warp speed. I dissent.

it can and should undo the damage by reinstating Open Access and reinvigorating competition for Internet access.

F. The Commission also eliminated UNE-based Open Access.

At one time, the Commission made significant, but incomplete efforts to apply Open Access principles to UNEs. The *Local Competition Order* declined to subject packet switches to UNE access requirements and ruled that collocation did not extend to equipment used to provide enhanced services. The Commission did allow multifunction equipment supporting both conventional telephone and enhanced services so long as that equipment was necessary to providing conventional telephone service. The Commission also held that any company obtaining interconnection or UNE access to provide telecommunications services could offer information services through the same arrangement. The order mandated UNE access to all loops connecting central offices to end users, including the loops used to provide DSL, and obligated incumbent local telephone companies to fulfill any requests to condition existing loops to make them DSL-compatible.⁴⁷ A subsequent order confirmed that collocation included multifunction equipment that could be used to provide both voice and data services.⁴⁸ Perhaps most importantly, the *Line Sharing Order* mandated UNE access to the high frequency portion of the loop used to carry DSL so that two competitors could provide services over the same loop, with one offering conventional telephone service in the lower frequencies and the other offering DSL in the upper frequencies.⁴⁹

⁴⁷ *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499, 15691-92, 15713, 15794-95, and 15990, ¶¶380-382, 427, 580-581, and 995 (1996).

⁴⁸ *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, First Report and Order and Notice of Proposed Rulemaking, 14 FCC Rcd 4761, 4776-79, ¶¶27-31 (1999).

⁴⁹ *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Third Report and Order and Fourth Report and Order, 14 FCC Rcd 20912 (2000).

The courts were admittedly no great help with regard to competitive access to UNEs. The Supreme Court's decision in *AT&T Corp. v. Iowa Utilities Board* remanded the Commission's initial UNE access rules because the Supreme Court held the Commission had construed the "necessary" and "impair" standards too broadly.⁵⁰ On remand, the Commission reiterated that incumbent local telephone companies must condition DSL loops upon request. Although UNE access to loops generally included all attached electronics, the Commission nonetheless again specifically excepted packet switches and Digital Subscriber Line Access Multiplexers ("DSLAMs"), based on the notion that granting UNE access to them would deter investment in a nascent market. The Commission did permit UNE access to DSLAMs located in remote terminals that were too small to permit physical collocation, but to date this "right" was rarely actualized into viable and functional competitive local exchange providers arrangements – largely because of roadblocks introduced by incumbent providers.⁵¹

In 2000, the D.C. Circuit struck down the Commission's decision permitting the collocation of multifunction equipment.⁵² In response, the Commission revised its rules in 2001 to limit collocation of multifunction equipment to equipment whose primary purpose is to provide the requesting carrier either with interconnection that is "equal in quality" to that provided by the incumbent local telephone company for its own services or with "nondiscriminatory access" to an unbundled network element.⁵³ These revisions to the collocation rules survived review in the face of challenges from ILECs.⁵⁴

⁵⁰ *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 387-92 (1999).

⁵¹ *Implementation of Local Competition Provisions of Telecommunications Act of 1996*, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696, 3775, 3776-77, 3783-84, 3835-37, 3839-840, ¶¶172, 175, 190-194, 306-309, 314-317 (1999).

⁵² *GTE Serv. Corp. v. FCC*, 205 F.3d 416, 422-24 (D.C. Cir. 2000) (quoting 47 U.S.C. §251(c)(6)).

⁵³ *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Fourth Report and Order, 16 FCC Rcd 15435, 15452-60, ¶¶32-44 (2001).

⁵⁴ *Verizon Tel. Cos. v. FCC*, 292 F.3d 903 (D.C. Cir. 2002).

The Commission then began a broader retreat from any real effort to extend the regulatory regime applicable to conventional telephone service to DSL and other wireline broadband technologies. In 2002, the Commission issued the *Wireline Broadband NPRM*, which tentatively concluded that DSL and other broadband services provided by local telephone companies constituted “information services” not subject to Title II tariffing and common carriage requirements, and sought comment on whether to modify or eliminate *Computer Inquiry* rules.⁵⁵ Later in 2002, the Commission detariffed DSL services that SBC offered through its separate subsidiary.⁵⁶

In 2002, the D.C. Circuit struck the Commission’s decision requiring line sharing.⁵⁷ This led the Commission to eliminate line sharing and lift UNE access obligations to most high-capacity loops in the 2003 *Triennial Review Order*. The Commission also eliminated the limited exceptions it had recognized for UNE access to DSLAMs and other packet switching equipment.⁵⁸ The *Triennial Remand Review Order* then eliminated high-capacity transport and high-capacity loops from the list of §251(c)(3) UNEs.⁵⁹ The Commission granted incumbents’ requests to have exceptions from 271 requirements for broadband in 2004.⁶⁰

⁵⁵ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Notice of Proposed Rulemaking, 17 FCC Rcd 3019, 3029-33 ¶¶17-24, 3040-43 ¶¶43-53 (2002).

⁵⁶ *Review of Regulatory Requirements for Incumbent LEC Broadband Services*, Memorandum Opinion and Order, 17 FCC Rcd 27000 (2002).

⁵⁷ *United States Telecom Ass’n v. FCC*, 290 F.3d 415, 428-29 (D.C. Cir. 2002).

⁵⁸ *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, 17327-33 ¶¶549-580 (2003).

⁵⁹ *In re Unbundled Access to Network Elements Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 20 FCC Rcd 2533, 2575-641 (2005), *aff’d*, *Covad Commc’ns Co. v. FCC*, 450 F.3d 528 (D.C. Cir. 2006).

⁶⁰ *Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. §160(c); SBC Communications Inc.’s Petition for Forbearance Under 47 U.S.C. §160(c); Qwest Communications International Inc. Petition for Forbearance Under 47 U.S.C. §160(c); BellSouth Telecommunications, Inc. Petition for Forbearance Under 47 U.S.C. §160(c)*, Memorandum Opinion and Order, 19 FCC Rcd 21496 (2004) (“*Broadband 271 Forbearance Order*”).

In sum, the situation today is that an independent ISP has no means to obtain high-capacity loops from an ILEC or a cable company under nondiscriminatory and reasonable terms, either directly or through a competitive carrier. There is no wholesale access to network infrastructure or services provided on fair and reasonable terms, for which there is some degree of transparency and non-discrimination. There is no mandatory regulated access, such as local loop unbundling. Wholesale access products such as dark fiber or next layer (e.g., bitstream) are unavailable, except by leave and on adhesive “negotiated” terms reluctantly offered by a cable or telephone company.

Open Access is gone, and with it, the independent ISP industry that originally brought the Internet to the masses. The Commission’s predecessors made a series of decisions that led to the elimination of a source of robust competition and beneficial economic incentives. This history, however, need not dictate future policy choices. This Commission now has the opportunity to change course and bring Open Access and competition back to American broadband.

G. Commission predictions that closing the networks would lead to ubiquitous broadband and not threaten the open Internet have proven incorrect.

When the Commission classified cable broadband Internet access and DSL Internet access as information services, it predicted that broadband competition would take off as a result. The *DSL Reclassification Order* explained that deregulation was appropriate because competition amongst independent ISPs was flourishing and would continue to thrive.⁶¹ The Commission also believed that intermodal competition would blossom, leading to additional investment and reduced prices for consumers.⁶² This expectation was not merely peripheral to the decision to classify broadband as an information service, it was the primary basis for Title I

⁶¹ *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, 20 FCC Rcd 14853, 14907, ¶100 (2005) (“*DSL Reclassification Order*”).

⁶² *Id.*, ¶57.

classification.⁶³ Yet more than fifteen years after the *Cable Modem Declaratory Ruling* – plenty long enough for the predicted widespread mass-market competition to be in full bloom – Americans still have limited choice between broadband providers in many areas of the country. Three fourths of US census blocks have only one provider that offers 25 Mbps Internet access. Only one-third of Americans have a choice of two or more providers. Less than 10 percent have a choice of three or more providers, yet in the similarly structured electricity market, many areas of the country have dozens of choices for retail electric providers.

The expectations failed to materialize, to be sure, but the classification decisions based upon these expectations have also proven counterproductive. The competition that existed at the time of the orders has vanished. In 1998, there were between five thousand and seven thousand independent ISPs offering Internet access to the American public,⁶⁴ but today almost all of them are gone. The independent ISPs are the collateral damage of the Commission’s misjudgment that, in a deregulatory environment, “wireline platform providers will find it necessary and desirable to negotiate arrangements with unaffiliated ISPs for access to their broadband networks in order to grow the base of users of their broadband infrastructures.”⁶⁵ The Commission promised independent ISPs that despite all of the deregulation ISPs would have “continued availability of this transmission component, under reasonable rates, terms, and conditions.”⁶⁶ But it then broke this promise and proceeded to let the incumbent telephone and cable companies entirely close their networks off from competitive access. They now have complete control over

⁶³ *Id.* ¶44.

⁶⁴ Barbara Esbin, Internet over Cable: Defining the Future in Terms of the Past ¶18 & n.88 (OPP Working Paper No. 30, 1998).

⁶⁵ *DSL Reclassification Order*, 20 FCC Rcd 14853, 14895 ¶79.

⁶⁶ *Id.* at ¶100.

the broadband Internet access market. The independent ISP industry is history and consumers now suffer monopoly conditions. This is entirely the result of the Commission's actions.

All of these problems arise from an uncompetitive broadband market. If American Internet users had the option to vote with their feet, the marketplace would punish harmful behavior. Users themselves could impose neutrality requirements by ditching broadband providers with abusive practices. A Comcast decision to inject reset headers into its users' BitTorrent traffic, to block encryption, or to throttle video would be weighed against the loss of customers and shareholder fury, rather than the merits of challenging the Commission's §§706 or 230 authority in court.

The Commission missed the mark with its prediction that intramodal competition would thrive. It also misjudged the likelihood of intermodal competition. The *DSL Reclassification Order* argued that "other existing and developing platforms, such as satellite and wireless, and even broadband over power line in certain locations, indicat[e] that broadband Internet access services in the future will not be limited to cable modem and DSL service."⁶⁷ However, none of these technologies have developed into a competitive threat to the telephone and cable companies. Wireless broadband has developed its own niche, but has failed to become an alternative for wired Internet access because of limitations inherent to broadcasting data over radio spectrum. Eighty-three percent of smartphone owners continue to maintain their wired home broadband connections, indicating that wireless is not a viable replacement.⁶⁸ If the average American Internet user were to even attempt to substitute a wireless connection for their wired connection, overage charges would drive their bill to more than \$800 per month.⁶⁹

⁶⁷ *Id.* at ¶50.

⁶⁸ Susan P. Crawford, First Amendment Common Sense, 127 Harv. L. Rev. 2343, 2355-56 (2014).

⁶⁹ *Id.*

In addition to unrealistic expectations regarding competition, the Commission also incorrectly predicted that infrastructure investment would take off. The telephone and cable companies assured the Commission that they would make commercially reasonable alternative facilities available to unaffiliated ISPs.⁷⁰ The Commission believed them and agreed that ending Open Access was an acceptable concession for the promised broadband deployment. Both promises (continued open access and lots of new investment they would not have otherwise made) were broken.

The incumbents robustly improved the telecommunications network for decades even after Open Access principles were first developed in the 1960s. The Commission embraced Open Access as a means to facilitate competition in a series of cases related to interconnection, customer premises equipment, inside wiring and enhanced/information services. The incumbents continued to invest during this period, even though they were “suffering” under Title II regulation and had to share their networks.

In hindsight, the fact that competition didn’t develop in an unregulated environment should not come as a surprise. From a practical perspective, companies that sell wires will only survive in a competitive market if they assiduously tend to making new wire. On the other hand, if that company faces little competition in the wire market, it can earn extraordinary profit by selling products that involve wire as an input after it begins to restrict output, thereby keeping the price high.

The problems are all due to the fact that transmission is still a monopoly (or a duopoly). From a technical and economic perspective, transmission and Internet access are two separate

⁷⁰ See, e.g., *DSL Reclassification Order*, 20 FCC Rcd 14853, 14886-87 ¶¶63-64; see also *Broadband 271 Forbearance Order*, 19 FCC Rcd at 21508, ¶26.

markets, although they are adjacent.⁷¹ Once again, the Commission recognized this very fact in the *Computer Inquiries*. The entire purpose of that proceeding was to isolate monopoly components and impose regulation on monopoly activity, while deregulating potentially competitive enhanced services in adjacent markets.

The broadband service sector could become fully competitive again if the underlying bottleneck transmission components are available on a common carrier basis to all potential purchasers. That is precisely how it worked in the dial-up days and the move to broadband does not justify a different result. If we return to Open Access and allow competition back into the Internet access market, then any Internet access provider that fails to act consistent with consumer expectations will quickly be faced with alternative providers offering prices and terms that users really want.⁷² As it stands, however, the last mile transmission input is available only to the telephone and cable companies for Internet access. They have now monopolized both transmission and the Internet access market and are eying the rest of the Internet with undisguised lust.

IV. TITLE II PRESENTS THE ONLY STATUTORY AUTHORITY FOR RULES THAT PROHIBIT BLOCKING, THROTTLING, PAID PRIORITIZATION, AND OTHER EVIL ACTIVITY.

If the Commission refuses to return to its roots by regulating transmission under Title II and requiring open access then it has no choice and must retain its current rules, including the current Title II classification for broadband Internet access.

⁷¹ Internet Access depends on transmission service inputs, but they are logically and practically separate markets. From an antitrust perspective, the Commission basically allowed the incumbents to engage in monopoly leveraging and then a tying arrangement. Now the incumbents want to take over the also-adjacent “Internet service” market by leveraging their existing market power in transmission and Internet access.

⁷² Many of the activities identified as “problems” in this entire debate would not much of a concern if there was a competitive market. A provider’s attempt to impose “content value” pricing, or block, throttle or implement forced paid prioritization simply would not succeed if there were alternatives – unless individual consumer decide that is what they actually want. If that is what they want, then the activity is merely fulfilling consumer desires and that is a good thing. The problem arises when the two dominant providers impose these results, *despite* rather than *because of* consumer desires.

The *NPRM* professes love for the no blocking and no throttling rules, but disdain for the Title II authority used to promulgate them. The Commission asks whether the current open Internet rules can be based on something other than Title II, and specifically seeks comment on whether they (or some variation) can be based on §706 or §230.⁷³ The Commission may not like its statute, but until Congress changes the law, the FCC is bound to it. The rules impose *per se* common carriage, and the only common carrier authority available to the Commission is in Title II.

The *Verizon* decision held that §706 grants the Commission authority to implement rules to protect the open Internet, but struck down the no blocking and anti-discrimination rules as *per se* common carrier obligations.⁷⁴ The D.C. Circuit reasoned that because the Commission classified broadband Internet access service as a non-common carrier unregulated information service in several decisions between 2000 and 2005, it cannot impose common carrier regulations on broadband Internet access providers.⁷⁵ The 2014 Commission finally realized the only legal basis for effective rules is Title II since all other potential mechanisms are insufficient, and the D.C. Circuit agreed in the *USTA Panel Decision*.⁷⁶ The current Commission has nonetheless once again asked whether it can use its §706 authority for these rules without

⁷³ *NPRM* ¶101-102.

⁷⁴ *Verizon*, 740 F.3d at 657-58.

⁷⁵ *Id.*

⁷⁶ See *USTA Panel Decision* at 707:

the Commission found it necessary to establish three bright-line rules, the anti-blocking, anti-throttling, and anti-paid-prioritization rules, *2015 Open Internet Order*, 30 *FCC Rcd.* at 5607 ¶ 14, all of which impose *per se* common carrier obligations by requiring broadband providers to offer indiscriminate service to edge providers, see *Verizon*, 740 F.3d at 651-52. “[I]n light of *Verizon*,” the Commission explained, “absent a classification of broadband providers as providing a ‘telecommunications service,’ the Commission could only rely on *section 706* to put in place open Internet protections that steered clear of regulating broadband providers as common carriers *per se*.” *2015 Open Internet Order*, 30 *FCC Rcd.* at 5614 ¶ 42.

classifying broadband Internet service or its underlying transmission component⁷⁷ as a Title II telecommunications service. But the court decisions make clear that §706-based rules cannot impose *per se* common carriage.

Section 706 does not provide solid legal authority for the Commission to retain the current rules outside of Title II. If the Commission tries again it will suffer the same result. The Commission must acknowledge that the current rules are necessary and the only way to retain them is through Title II. It is time to end all of the uncertainty and re-litigation. If the FCC is not interested in Open Access then accept what the statute says, end this proceeding and let us all go home. The public is not served by all of this litigation and discord. The industry needs certainty.

The Commission should not knowingly set out on tenuous legal authority to protect the open Internet. To do so invites legal challenge and forecloses the type of certainty that businesses and investors require. This is especially unwise when the D.C. Circuit and Supreme Court have affirmed that the Commission plainly has the ability to use its Title II authority as the basis for “Net Neutrality” rules.

The *Verizon* court was quite clear. Section 706 cannot be used as the authority for common carrier obligations. Section 230 is unavailing as well. That section merely provides findings and a policy statement. It comes no closer to authorizing common carrier rules than does §706. The only statutory authority is in §§201 and 202.

⁷⁷ The Commission should simply embrace and apply its Title II authority, and then require unbundling and a separate offer of the transmission component by returning to *Computer Inquiry* Open Access. New competitive entry in the Internet access market will then deter all the evils identified by the Commission and commenters. If the Commission does not return to Open Access then it must at least continue to rely on Title II to regulate the currently non-competitive Internet access market through meaningful and effective rules that prevent the evils all agree should be deterred.

V. BROADBAND INTERNET ACCESS PROVIDERS HAVE ALWAYS HELD OUT AS COMMON CARRIER REGARDLESS OF THE COMMISSION’S FORMAL CLASSIFICATION DECISIONS. TITLE II APPLIES TO TRANSMISSION AND CAN ALSO BE RETAINED FOR INTERNET ACCESS.

The Commission is not required to apply the *NARUC* common carrier test when applying the statutory test,⁷⁸ but it can certainly look to the common law test when deciding whether an entity or activity is or should be subjected to statutory common carriage. Broadband providers have held out as common law common carriers for many years, so they should also continue to be recognized as such under the statutory definition. This is so even for cable companies and wireless providers. Broadband providers offer service on uniform terms and do not negotiate individual contracts. They accept all applicants without discrimination and they offer to indiscriminately carry all traffic to any Internet end-point. In other words, broadband providers hold themselves out to serve the public indiscriminately and do not make individualized decisions, in particular cases, whether and on what terms to deal. They “hold themselves out as neutral, indiscriminate conduits.”⁷⁹

A. Cable companies, wireline companies and wireless companies have all voluntarily assumed common carrier status and have provided telecommunications service.

The *Cable Modem Declaratory Ruling* glossed over the fact that many if not most cable companies have historically provided “telecommunications service” (“basic service” under *Computer Inquiry*).⁸⁰ Several were, in fact, common carriers. Several also offered “telecommunications” on a private carrier basis, including a few that successfully convinced the

⁷⁸ *USTA Panel Decision* at 710-711.

⁷⁹ *USTA Panel Decision* at 743.

⁸⁰ See *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4824-4826, 4828, ¶¶42-46, 51.

Commission to preempt state efforts to impose intrastate common carrier regulation over their “telecommunications” offering.⁸¹

Cox/CoxDTS and *United Cable* centered on state commission efforts to regulate cable company institutional high-speed digital transmission services. The “high-speed digital transmission service” supported *enhanced services* supplied by “governmental and educational institutions and private businesses.”⁸² Presumably *United Cable*’s high-speed digital transmission service was or could also be used to support enhanced operations as well.

This was “telecommunications.” This was “broadband.” It was used (at least in part) to support enhanced functionalities. In *Cox/Cox DTS* the Commission chose not to impose common carrier obligations on Comline’s service. Cox’s “DTS” service, however, was common carrier although it enjoyed forbearance from tariffing.⁸³ These cases clearly reflect that cable companies have provided broadband transmission “telecommunications,” some of which was a “telecommunications service,” and this transmission product was used to support enhanced/information services supplied by unaffiliated private and public third parties. *Cox/DTS*, for example was about “broadband data services.”⁸⁴ The *Cable Modem Declaratory Ruling* overstated one of its premises by overlooking the fact that cable companies had indeed offered a stand-alone broadband transmission service, several of those were offered on a common carrier basis, and some of those were used to support enhanced services provided by the subscriber to the service.

⁸¹ See e.g., *In the Matter of Cox Cable Communications, Inc., Comline, Inc. and Cox DTS, Inc.*, Declaratory Ruling, and Order, 102 F.C.C.2d 110, 120-21 ¶¶24-25 (1985), vacated as moot on other grounds, 1 FCC Rcd 561 (1986); see also *In the Matter of United Cable Television of Colorado, Inc., et al*, Memorandum Opinion and Order, 1 FCC Rcd 555 (1986) (recognizing the cable company service is telecommunications, but refusing to preempt).

⁸² See *Cox*, 102 F.C.C.2d 110, 112 ¶3.

⁸³ *Id* at 128, ¶36, citing to *Competitive Carrier Rulemaking*, Fifth Report and Order, 98 FCC 2d 1191, 1205-09 (1984).

⁸⁴ *Id* at 132 (Quello, dissenting).

Further, few seem to recall that *NARUC II* involved a two-way non-video cable company providing transmission service offerings that were ultimately held by the court to be common carriage. The Commission had preempted state regulation and refrained from imposing common carrier obligations. The *NARUC II* court reversed, however, and held that the specific offering at issue there was telecommunications and should have been treated as common carrier because it met all of the relevant indicia of common carriage.⁸⁵ “The clear content of that term (common carrier) as developed at common law and discussed in our previous *N.A.R.U.C.* opinion indicates that most or all of the two-way, non-video cable operations at issue here do fit within the common carrier concept. Because at least the bulk of those activities are also clearly intrastate, we cannot avoid the conclusion that the §152(b) jurisdictional bar clearly applies, beyond any margin for deference or discretion.”⁸⁶

All seem to agree that cable companies’ broadband transmission is telecommunications and both the Commission and courts have recognized that some of their offerings can be, or are, common carrier and thus, telecommunications service. The question then becomes whether the Commission should – after the experience gained over the last several years – decide that it will isolate the transmission portion at issue today and require that it be offered on a common carrier basis going forward by declaring that the transmission involved here is and should be a “telecommunications service.” The answer to both parts of this question should be “yes.”

Although the Commission decided not to impose or find common carriage in the *Cable Modem Declaratory Ruling*, the cable companies’ current offerings of bundled Internet access most certainly do meet the holding out and indifference prongs. They have a standard offer and do not negotiate individual contracts, particularly for residential and small-business customers.

⁸⁵ *NARUC II*, 533 F.2d at 608-610.

⁸⁶ *Id* at 618.

They typically hold out to serve all comers that meet their eligibility criteria. They do not generally choose clients on an individual basis or determine in each particular case whether and on what terms to serve.⁸⁷ They meet all of the indicia of common carriage under the common law. Even when the Commission did not require common carriage, the cable companies nonetheless exhibited all the classic signs of a voluntary undertaking to be a common carrier, and thus are common carriers. So, by the way, are the “wireless” and “wireline” providers. All of them have a standard offer, do not negotiate individual terms and they accept all comers without discrimination. All of them hold out to provide unfettered access to all Internet end-points.

B. The Commission does not have the power to impose or withdraw common carrier status based solely on policy objectives.

The Commission does not have “unfettered discretion” to “confer or not confer common carrier status on a given entity, depending upon the regulatory goals it seeks to achieve.”⁸⁸ “The common law definition of common carrier is sufficiently definite as not to admit of agency discretion in the classification of operating communications entities. A particular system is a common carrier by virtue of its functions, rather than because it is declared to be so.”⁸⁹

The Commission, therefore, will have great difficulty with any effort to re-re-classify Internet access as a non-common carrier service. The stated desire to do so is purely policy-driven, and has little to do with the “functions” or how Internet access is actually offered or provisioned.

Besides, as noted, all of the major providers fully meet all the *NARUC* tests for common law common carriers. If an entity or class of entities has voluntarily chosen to act like a common

⁸⁷ Cf. *NARUC II*, 533 F.2d at 608-09; *NARUC I*, 525 F.2d at 643; see also *Southwestern Bell Tel. Co. v. FCC*, 19 F.3d 1475, 1481 (D.C. Cir. 1994).

⁸⁸ *NARUC I* involved whether the Commission could deem a particular wireless service to not be common carrier and pre-empt state regulation.

⁸⁹ *NARUC I*, 525 F.2d at 644.

carrier, then the Commission can and should recognize that reality, and proceed accordingly. “If practice and experience show the [cable companies and telephone companies] to be common carriers, then the Commission must determine its responsibilities from the language of the Title II common carrier provisions.”⁹⁰ The actual operations of cable and telephone companies’ broadband Internet access services “appear(s) to bring them within the common carrier definition.”⁹¹ Experience has shown that there are “reasons implicit in the nature of [broadband Internet access] operations to expect an indifferent holding out to the eligible user public.”⁹² The cable and telephone companies’ actual manner of providing retail Internet access services easily meet the *NARUC* common carrier tests. Title II regulation must therefore be retained over the transmission component or the entire Internet access offering.

The Commission has the power to require a stand-alone common carrier offer for transmission. The *NARUC I* court expressly contemplated this result by asking whether “there will be any legal compulsion thus to serve indifferently.”⁹³ The court recognized that as a valid question and engaged in an analysis of whether there was (and thus could be) a compulsion, so there is room for regulators to compel common carrier classification in appropriate circumstances, especially when the providers are already acting consistent with that designation in their actual dealings.

The proper choice is to return to Open Access by using Title II authority and mandating a separate offering of the transmission component. If this is done, the Commission does not need to regulate Internet access because competition will sufficiently constrain the dominant actors. If, however, the Commission does not return to Open Access, then it *is* necessary to regulate

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Id.* at 643.

⁹³ *Id.*

broadband Internet access under Title II because the dominant providers face no competitive constraints. Effective and clear prohibitions on blocking, throttling, and anti-competitive acts like paid prioritization are imperative. Since that is *per se* common carriage, the Commission should continue to invoke its common carrier jurisdiction and use Title II tools.

VI. MOBILE AND FIXED BROADBAND SERVICE SHOULD BE SUBJECT TO EQUAL AND CONSISTENT RULES.

The *NPRM* asks whether commercial mobile data service should stay under Title II or be re-re-classified as private carriage.⁹⁴ The Commission should keep the current rules for both fixed and mobile broadband service and it should be kept under Title II. The simplest reason is that the mobile providers also meet the *NARUC* test for common carriage. They have already held out. They were doing so before 2014, and continue doing so today. They are common carriers and the Commission cannot ignore this and declare them not common carriers purely to obtain policy ends.

VII. THE CONTENTION THAT ABUSES ARE A MYTH IS FAKE NEWS.

A. The Courts Agree Abuses Have Occurred.

The *NPRM* appears to deny that the dominant Internet access providers have committed abuses, or even have the incentive and ability to abuse their market power. It characterizes the abuses identified in prior Commission orders as an “isolated” “few scattered anecdotes” that present “no quantifiable evidence of consumer harm” and therefore is a “nonexistent problem.”⁹⁵ This is simply wrong. The Commission is well aware that the dominant providers engaged in repeated serious abuses. Lots of evidence has been presented in each of the proceedings relating to open Internet, far more than just the examples used in the order adopting the 2014 rules. Some of that information is repeated below based solely on the experience of

⁹⁴ *NPRM* ¶¶55-62.

⁹⁵ *NPRM* ¶¶50, 76, 77, 85.

Data Foundry and Golden Frog. These questions have already been conclusively resolved in the affirmative. The Commission has found there is an incentive and ability and that providers have acted in abusive fashion. The D.C. Circuit has twice agreed that abuses are possible, the incentive and ability exists, and that there have been actual abuses:

...We also determined that the Commission had “adequately supported and explained its conclusion that, absent rules such as those set forth in the [2010 Open Internet Order], broadband providers represent[ed] a threat to Internet openness and could act in ways that would ultimately inhibit the speed and extent of future broadband deployment.” *Id.* at 645. For example, the Commission noted that “broadband providers like AT & T and Time Warner have acknowledged that online video aggregators such as Netflix and Hulu compete directly with their own core video subscription service,” *id.* (internal quotation marks omitted), and that, even absent direct competition, “[b]roadband providers . . . have powerful incentives to accept fees from edge providers, either in return for excluding their competitors or for granting them prioritized access to end users,” *id.* at 645-46. Importantly, moreover, the Commission found that “broadband providers have the technical . . . ability to impose such restrictions,” noting that there was “little dispute that broadband providers have the technological ability to distinguish between and discriminate against certain types of Internet traffic.” *Id.* at 646. The Commission also “convincingly detailed how broadband providers’ [gatekeeper] position in the market gives them the economic power to restrict edge-provider traffic and charge for the services they furnish edge providers.” *Id.* Although the providers’ gatekeeper position would have brought them little benefit if end users could have easily switched providers, “we [saw] no basis for questioning the Commission’s conclusion that end users [were] unlikely to react in this fashion.” *Id.* The Commission “detailed . . . thoroughly . . . the costs of switching,” and found that “many end users may have no option to switch, or at least face very limited options.” *Id.* at 647.”

USTA Panel Decision, supra at 694, referring to *Verizon v. FCC*, 740 F.3d at 645-647.

B. Broadband providers have engaged in abuses and will once again abuse if there are no Title II rules.

VPNs like Golden Frog’s VyprVPN can defeat Internet access provider throttling by assigning “special treatment” to discrete content, applications, use, source/destination or devices on the user facing side, or purposeful congestion of particular connections on the “Internet” facing side. VyprVPN often report that their speeds increase when they use VyprVPN, despite the fact that using the product involves some amount of additional overhead. This can only mean

that the ISP is using deep packet inspection to identify applications like video and applying some form of throttling on the user-facing side. Domestic ISPs were doing so before the 2015 rules and they will resume if the current rules are repealed.

The *NPRM* pretends that abuses have not in fact occurred, but this is demonstrably incorrect.⁹⁶ Golden Frog has detected, publicly exposed⁹⁷ and reported these abuses to the Commission.⁹⁸ Sadly, Internet access providers are *still* using Deep Packet Inspection to identify users' applications, content, service, use, source/destination, or device based on access provider preferences, rather than user preferences. They *will* resume abusing their users if given the chance.

Of particular interest in the example from July 17, 2014 is that this consumer was able to utilize the same Internet access to achieve full throughput of his Netflix service by using a VPN to control the route through which Netflix flowed. This demonstrates that his Internet access provider had sufficient bandwidth to fulfill his request, but the provider chose to not properly manage the network in order to provide customers the bandwidth that was advertised and contracted. Instead, users had to take further action and utilize a VPN service in the hopes that the route through the Internet access provider to the VPN service was on an uncongested link. Throttling occurred on both sides.

⁹⁶ See Colin Nederkoorn's Blog, *Verizon made an enemy tonight*, <http://iamnotaprogrammer.com/Verizon-Fios-Netflix-Vyprvpn.html>; John Brodtkin, 'Verizon made an enemy': FiOS customer mad that Netflix works better on VPN, 75Mbps Verizon FiOS service isn't good enough to stream Netflix smoothly, Ars Technica (July 18, 2014), available at <http://arstechnica.com/information-technology/2014/07/verizon-made-an-enemy-fios-customer-mad-that-netflix-works-better-on-vpn>; Ben Popper, *How one man bypassed internet congestion and fixed his Netflix streaming. On today's internet, the shortest route is sadly not always the best*, The Verge (July 18, 2014), available at <http://www.theverge.com/2014/7/18/5916153/netflix-verizon-vpn-streaming-congestion-speed>.

⁹⁷ See Golden Frog Blog, *Infographic: Netflix vs. Comcast – The Peering Problem*, (April 25, 2014) © 2014 Golden Frog, GmbH, available at <http://www.goldenfrog.com/blog/netflix-vs-comcast-the-peering-problem>.

⁹⁸ See, WC Docket 14-28 et al, Golden Frog Comments, July 17, 2014, available at <https://ecfsapi.fcc.gov/file/7521709960.pdf>; WC Docket 14-28, et al, Golden Frog Written Ex Parte, Nov. 9, 2014, available at <https://ecfsapi.fcc.gov/file/60000979935.pdf>.

Without enforceable rules, throttling may be the problem of today but encryption blocking will be another problem tomorrow as more users get around ISP throttling and the ISPs react by removing that option. Indeed, Golden Frog already exposed one broadband provider blocking encryption in 2014 and reported it to the Commission. That provider used network equipment to block the STARTTLS command from enabling the encryption of SMTP (Simple Mail Transfer Protocol) traffic.

STARTTLS is an extension to SMTP that allows an SMTP server and client to use Transport Layer Security (“TLS”) to provide private, encrypted, and authenticated communication over the Internet. This gives users the ability to protect some or all of their communications from eavesdroppers and attackers. SMTP [RFC2821] servers and clients routinely communicate in the clear over the Internet.⁹⁹ In many cases, this communication goes through one or more routers that are not controlled or trusted by either entity. An untrusted router might allow a third party to monitor or alter the communications between the server and client.¹⁰⁰

STARTTLS allows a client to initially make a clear connection but then initiate a request to the server to switch to an encrypted connection. The initial connection is in the clear, so any entity in the middle – including the Internet access provider – can see the connection requests and associated header and control information, including the connection set up requests. It is possible for an Internet access provider to interpret the request and control information, and to even change the content requests from the client or responses from the server. This includes the client request to initiate an encrypted session, or the server response to that request.

⁹⁹ It is possible to establish an encrypted connection at the beginning. SMTPS automatically starts SSL encryption before any SMTP level communication.

¹⁰⁰ RFC 3207, SMTP Service Extension for Secure SMTP over Transport Layer Security, © The Internet Society (2002), available at <https://tools.ietf.org/html/rfc3207>.

Golden Frog performed tests on a mobile wireless company's data service by manually typing the SMTP commands and requests and monitoring the responses from the email server at issue. It appears that this particular mobile wireless provider was intercepting the server's banner message and modifying it in-transit from something like "220 [servername] ESMTP Postfix" to "200 *****." The mobile wireless provider then further modified the server's response to a client command that lists the extended features supported by the server. The mobile wireless provider modified the server's "250-STARTTLS" response (which informs the client of the server's capacity to enable encryption). The Internet access provider changed it to "250-XXXXXXA." Since the client did not receive the proper acknowledgement that the server supported STARTTLS, it did not attempt to turn on encryption. Even if the client nonetheless attempted to use the STARTTLS command, the mobile wireless provider intercepted the client's commands to the server and changed that too. When the Internet provider network detected the STARTTLS command being sent from the client to the server, the mobile wireless provider modified the command to "XXXXXXX." The server did not understand this command and therefore sent an error message to the client.

This practice was conceptually similar to the way that Comcast used packet reset headers to block the use of BitTorrent in 2007. The result was that wireless Internet users wanting to protect their email communications with basic encryption protocols could not do so on this particular wireless provider's network. Soon after Golden Frog reported this abuse to the FCC the provider stopped the practice. But when the rules go away, the providers will be able to run amok and accelerate their abusive practices.

The claim that rules banning blocking, throttling, and paid priority are solutions in search of a problem is flatly wrong. There have been problems in the past. Golden Frog has experienced

them, and reported them to the Commission. If there are no Title II-based rules these abuses will be repeated..

The Commission must do more than dismiss all of this as fake news. It is real. The false story would be any assertion that the dominant providers have not abused their market power and would not do so again, given the chance. The Commission must retain strong rules under Title II that protect the Open Internet.

VIII. CONCLUSION

There is no meaningful mass-market competition in the Internet access market. Bringing back Open Access by regulating the transmission piece under Title II and making it available on just, reasonable and nondiscriminatory terms would allow competition to return. The renewed competition would allow the Commission to then put Internet access service back under Title I. That is what *Computer Inquiry* was all about. That is what brought the Internet to the masses. The Commission must return to its *Computer Inquiry* roots in this proceeding.

If the Commission chooses to not re-embrace *Computer Inquiry* then it must retain the current rules and Title II treatment for broadband Internet access. The incumbents cannot be allowed to have unregulated monopoly power over the transmission line to the home and the Internet access service obtained over that line. The country will suffer, consumers will suffer and the only beneficiaries will be the large incumbents.

IX. SIGNATURE OF COUNSEL

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