

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

In the Matter of)	
)	
Preserving the Open Internet)	GN Docket No. 09-191
)	
Broadband Industry Practices)	WC Docket No. 07-52

**COMMENTS OF
THE
NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES**

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I. Introduction – Focus of NASUCA Comments

The Commission seeks “comment on the best means of preserving a free and open Internet, however it is accessed, and draft proposals to achieve that end.”¹ The importance of this inquiry cannot be overstated in a world where – increasingly, and in different ways – information is power.² The rules governing the transport of that information are of vital importance for the economic, political, and social health of the country.³

Specifically, the Commission seeks comment on the following:

- Draft language codifying the four freedoms or principles the Commission articulated in the *Internet Policy Statement* – protection of an “open and interconnected” Internet through the guarantee of free choice of content, applications, devices, and service provider;
- Draft language codifying a fifth principle of non-discrimination, requiring that broadband Internet access service providers treat lawful content, applications, and services in a nondiscriminatory manner;

¹ *In the Matter of Preserving the Open Internet*, GN Docket No. 09-191, *Broadband Industry Practices*, WC Docket No. 07-52, Notice of Proposed Rulemaking (“NPRM”) (rel. October 22, 2009), ¶ 16, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-93A1.doc.

² A literal application of this maxim is found in William Gravell, *Some Observations along the Road to “National Information Power”*, 9 Duke J. Comp. & Int’l L. 401 (1999) (discussing information as a strategic asset, “at a time when virtually every aspect of life on Earth is hurtling headlong toward expression in informational form”); see also John Markoff, *Before the Gunfire, Cyberattacks*, N.Y. Times, Aug. 12, 2008, at A1 (describing attack on government information systems preceding Russian invasion of Georgia); see also, in place of many, *FCC En Banc Hearing on Broadband Network Practices*, Docket 07-52 (Stanford, April 17, 2008) (testimony of Barbara van Schewick, addressing business opportunity costs of information bottlenecks); cf. C.D. McLean, *1993 Call for Papers: Death and Rebirth of a National Information Policy: What We Had and What We Need*, 85 LAW LIBR. J. 743 (1993).

³ Information delivery systems are deemed important enough in some countries that they are constitutionally protected. See CASS SUNSTEIN, DEMOCRACY AND THE PROBLEM OF FREE SPEECH 77, 267 n.61 (1993) (constitutional protection extended in certain European countries to television programming *per se*, rather than individual broadcasting); Witteman, *Constitutionalizing Communications, the German Constitutional Court’s Jurisprudence of Communications Freedom*, 33 Hastings Int’l & Comp. L.Rev. 95 (forthcoming 2010). Similarly, the United Nations’ 1948 Universal Declaration of Human Rights protects the ability to “obtain and receive reporting and ideas through any form of transmission and independent of borders.” Universal Declaration of Human Rights, Article 19, available at <http://www.un.org/en/documents/udhr/>; see also 1950 European Convention on the Protection of Human Rights and Fundamental Freedoms, Art. 10(1) (similar).

- Draft language codifying a sixth principle of transparency, requiring that broadband Internet access service providers disclose such information concerning network management and other practices as is reasonably required for users and content, application, and service providers to enjoy an open Internet;
- Draft language clarifying that the principles would be subject to reasonable network management and would not supersede any obligation a broadband Internet access service provider (“ISP”) may have -- or limit its ability -- to deliver emergency communications or to address the needs of law enforcement, public safety, or national or homeland security authorities;
- A category of “managed” or “specialized” services, including their definition and what principles or rules, if any, should apply to them.
- Application of the six principles to all platforms for broadband Internet access; and
- The enforcement procedures that the Commission should use to ensure compliance with the principles.⁴

The National Association of State Utility Consumer Advocates (“NASUCA”)⁵

agrees wholeheartedly with what the Commission is trying to accomplish in this rulemaking. We address ourselves in these comments to what we believe are compelling reasons for the Commission to act now on these issues, to the significant problems involved in preserving an open and neutral Internet, and to real-world solutions to those problems.

Throughout these comments, NASUCA recognizes the key difficulty: We believe that there is much to recommend the common carrier system that provided the data

⁴ NPRM, ¶ 16.

⁵ NASUCA is a voluntary association of advocate offices in more than 40 states and the District of Columbia, incorporated in Florida as a non-profit corporation. NASUCA’s members are designated by the laws of their respective jurisdictions to represent the interests of utility consumers before state and federal regulators and in the courts. Members operate independently from state utility commissions as advocates primarily for residential ratepayers. Some NASUCA member offices are separately established advocate organizations while others are divisions of larger state agencies (*e.g.*, the state Attorney General’s office). NASUCA’s associate and affiliate members also serve utility consumers but are not created by state law or do not have statewide authority.

transport capabilities during the Internet’s formative years; indeed, much of the physical infrastructure on which the Internet runs today was built as part of the public switched telephone network (“PSTN”) and should continue to be subject to the open access, non-discrimination, interconnection, and unbundling rules the FCC typically applied to the PSTN. At the same time, we are aware that Internet protocol (“IP”) provides entirely new horizons of communication, equivalent (some claim) to the changes wrought by the Gutenberg printing press.⁶ The challenge is to protect that potential, while preserving the best of the present.

II. A Word about “Data”

The Commission says that it is “particularly interested in fact-based answers to the questions [it] pose[s] and strongly encourage[s] commenters to provide relevant data and analyses in support of their positions.”⁷ The Commission is right to state its interest in fact-based comments at the outset, as good regulation and policy can only be based on a deep and thorough understanding of facts on the ground.

NASUCA cautions, however, that most of the data necessary for this analysis is not available to citizens and consumers. The Commission need only reference its own experience in trying to collect data to better inform its national broadband planning, in

⁶ This notion threatens to become a cliché. A recent Lexis search found 93 articles that mentioned the Internet and Gutenberg in the same sentence (a portion of those referring to “Project Gutenberg,” a clearinghouse offering free downloads of non-copyrighted books on the Internet – precisely the sort of project that could be at risk if the Internet is fully marketized; see http://www.gutenberg.org/wiki/Main_Page).

⁷ NPRM, ¶ 16.

which it became painfully obvious where this data is, and who “owns” it.⁸ The larger carriers, i.e., the operators of the electronic infrastructure that is increasingly vital to our country, almost universally responded that their information was “confidential and proprietary” (and that there was no need for new data collection procedures).⁹ That attitude, to which the Commission has thus far been overly deferential, pits the proprietary interests of the few network owners against the personal, political, and business information needs of millions of Americans. Not only is this mindset incompatible with the essential nature of these facilities, it also ignores the fact that most of these electronic communications facilities have been constructed underneath, on, or above public streets and easements, and are often legacy facilities paid for with ratepayer dollars.¹⁰

If allowed to prevail, the confidentiality and trade secret claims of the legacy incumbent local exchange carriers (“ILECs”), of the cable companies, and of other owners of infrastructure will deprive the Commission of essential data on key questions that underlie this inquiry, including but not limited to:

⁸ See generally industry comments submitted in response to FCC's Notice of Inquiry *In re National Broadband Plan*, GN Docket No. 09-51 (“09-51”) (data collection), 24 FCC Rcd 4342 (April 8, 2009).

⁹ See, e.g., 09-51, July 21, 2009 Reply Comments of AT&T (data collection), at 93-94 (and *passim*): Finally, the Plan must protect confidential and proprietary data supplied by broadband providers. Commenters such as NASUCA, Public Knowledge, Media Access Project, the New America Foundation, and U.S. PIRG urge the Commission to take a relaxed approach to confidentiality and proprietary concerns, loosening its standards and disclosing potentially competitively harmful information. [Citations omitted.] The Commission should reject those proposals and follow its strong record of protecting sensitive provider information, based on its well-grounded concern that serious harms could result from disclosure, including revelation of service providers’ technologies and the proprietary arrangements struck by the *customers* of those providers.

¹⁰ Werbach, *The Centripetal Network: How the Internet Holds Itself Together, and the Forces tearing It Apart*, 42 U.C. Davis Law Rev. 343, 398 (2008) (“The Internet and the public switched telephone network (‘PSTN’) use the same physical infrastructure”).

- Whether the ILECs have “significant market power” in the various transmission markets – last mile, middle mile or backhaul, and long-haul or backbone -- such that they could control the terms and conditions of electronic communications, including its open and interconnected nature;¹¹
- The exact nature of the “congestion” – which necessarily involves accurate measurements of both traffic and capacity – that carriers invoke to justify their use these network management” techniques;¹² and
- The actual network management practices employed today, and what are the dangers of those practices.¹³

It comes as no surprise when NASUCA’s members report that state agencies’ requests for data -- about where wires are in the streets, about who owns what facilities, about actual network management practices, and about the nature and extent of the carriers’ traffic and market share -- are often rebuffed by claims that the data are “confidential,” “proprietary,” “trade secrets,” and/or too “burdensome” to produce.¹⁴ The Commission has asked for “qualitative or quantitative evidence … regarding particular markets.”¹⁵ To the extent that respondent carriers fail to adequately provide this evidence, the Commission should draw negative inferences from that failure.

¹¹ NPRM, ¶¶ 67-74. Observers point to competition in the backbone market, but this is less prevalent in the backhaul segment of the market, and markedly less so in the last-mile marketplace. *See* discussion below of competition and market power.

¹² NPRM, ¶ 57.

¹³ NPRM, ¶¶ 57-58.

¹⁴ *See, e.g.*, ruling on staff’s motion to compel information in the AT&T/SBC merger proceedings at the California Public Utilities Commission, including wireless market share (Request 6-11) and fiber/special access maps (request 6-12), information that the merging entities had refused to provide, despite their assertions that robust intermodal competition would protect consumers (ruling available at http://docs.cpuc.ca.gov/word_pdf/RULINGS/46904.doc).

¹⁵ NPRM, ¶ 80. The Commission is particularly interested in the “impact [of] switching costs and consumer lock-in,” on “broadband Internet access service providers’ ability to act in ways that limit innovation in content, applications, and services,” and on “the competitive state of those markets.” *Id.*

More troubling, and perhaps less visible to the Commission, state agencies often lack the resources to even ask the right questions. In many state agencies, engineers capable of understanding the telephone utilities' actual network practices have been replaced over time with "analysts" who often have no industry-specific expertise or experience.¹⁶ What NASUCA does know, however, and what is evident to the public, is sufficient to justify the prompt institution of Commission rules to preserve an open and generative Internet.

III. The Physical Layer: What We Talk About When We Talk About Broadband and the Internet

Broadband is delivered and made up of several physical components: transmission lines, modems, routers and computers.¹⁷ In this proceeding, NASUCA's primary focus is on the owners and operators of transmission facilities, because this is where there is a significant market power bottleneck. Telecommunications transport and transmission facilities are often referred to as the "physical" layer of Internet

¹⁶ It is the consensus of our members that state regulatory commissions have ever fewer electrical engineers and others with the technical expertise necessary to understand the network configurations of the regulated carriers.

¹⁷ See, e.g., Whitt, *Evolving Broadband Policy: Taking Adaptive Stances to Foster Optimal Internet Platforms*, 17 CommLaw Conspectus 417, 427 (2009).

transmission, and encompass wired, wireless, and optical fiber media.¹⁸ Variously-described service and application layers ride on this physical layer.¹⁹

A separation of the physical transport layer on the one hand, and the service layers on the other, can be seen as a natural and inherent characteristic of next generation networks (“NGNs”):

Electronic communications networks [are] becom[ing] packet switched, mostly or completely based in the IP. They will be multi-service networks, rather than service specific networks for audio (including voice), video (including TV-services) and data networks, allowing a decoupling of service and transport provision... A core feature of IP networks is the separation of ... transport and service. This distinction potentially allows competition along the value chain more easily than in the PSTN world. A crucial point is the adoption of open and standardized interfaces between each functional level in order to allow third parties to develop and create services independent of the network.²⁰

In other words, discussion of telephone, cable, or broadband networks as *separate*, stand-alone networks is becoming ever less accurate and relevant. IP is the commonality

¹⁸ See, e.g., Frieden, *Adjusting the Horizontal and Vertical in Telecommunications Regulation: A Comparison of the Traditional and a New Layered Approach*, 55 Fed. Comm. L.J. 207, 213 (2003). Frieden describes a “hierarchy of identifiable layers involved in the provision of information and telecommunications, including a network/physical layer (the wired, wireless, or optical medium), services carried over such networks (one-way, two-way, narrowband, or broadband), and applications/content (voice, data, video, or Internet) riding at the top of the layered stack.” *Id.*

¹⁹ *Id.* at fn. 19, describing the Open Systems Interconnection (OSI) Reference Model. See also Direct Testimony of Jeffrey Richter, in Petition of AT&T Wisconsin for Declaratory Ruling that Its “U-Verse Voice” Service is Subject to Exclusive Federal Jurisdiction, Wisconsin Public Service Commission Docket 6720-DR-101 (filed Nov. 14, 2008), at pp. 8-9 (“The OSI 7 Layer Model defines the relationship between the application (at the top) and the physical hardware (at the bottom). The TCP/IP model [in contrast] uses four layers”); *see also id.* at Exhibit 1 (illustrating the seven layers of the OSI Model, with physical layer at bottom and applications layer at top, with “each layer functionally independent of the others, but provid[ing] service to the layer above it, and receive[ing] service from the layer below it”), available at http://psc.wi.gov/apps/erf_share/view/viewdoc.aspx?docid=104379; see also http://en.wikipedia.org/wiki/OSI_model.

²⁰ ERG Consultation Document on Regulatory Principles of IP-IC/NGN Core (ERG 08) 26rev1, at 96-97. The Consultation Document is available at http://www.erg.eu.int/doc/publications/consult_ngn_2008/erg_08_26rev1_consul_ip_ngn_080604.pdf.

that allows many different services to ride on what is currently, and will hopefully remain, one interconnected public electronic network.²¹ A unitary, interconnected network is essential to consumers, particularly low-income consumers, because it is only this interconnection that makes real the prospect of ubiquitous, universal, and affordable telecommunications for all.²²

Comments filed in the *Transition from Circuit-Switched Network* proceeding by the Pennsylvania Public Utility Commission describe the reality of an interconnected network, one that is at odds with the current fragmented regulatory policy:

The FCC inconsistently classifies some network facilities and services as “information service[s]” but other networks or services are classified as “telecommunications” with shared [state and federal] jurisdiction. It is intuitively understood, and the FCC has already acknowledged, that broadband network facilities are *jointly* used for the provision of telecommunications and information services. For example, fiber optic broadband facilities are jointly used for the *transmission* of legacy PSTN voice traffic, the transmission of IP-based [voice over IP] VoIP calls, the interconnection function between telecommunications common carriers and information service providers, etc. To arbitrarily label broadband network facilities as “information services” defeats on paper this network engineering reality....²³

²¹ Cf. Sandoval, *Disclosure, Deception, and Deep-Packet Inspection: The Role of the Federal Trade Commission Act’s Deceptive Conduct Prohibitions in the Net Neutrality Debate*, 78 Fordham L. Rev. 641, 653-54 (2009); see also Werbach, *Centripetal Network*, *supra*, concerning threats to the interconnected network. The Commission recently acknowledged the move to IP-based networks in its *NBP Public Notice #25* in GN Docket Nos. 09-47, 09-51, and 09-137 seeking comment on the *Transition from Circuit-Switched Network to All-IP Network (“Transition from Circuit-Switched Network”)* Public Notice DA 09-2517 (rel. December 1, 2009) at 1-2, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-09-2517A1.pdf.

²² Werbach, *Connections: Beyond Universal Service in the Digital Age*, 7 J. Telecomm. & High Tech. L. 67, 68 (2009) (“Subsidy mechanisms to enhance ubiquity should be linked to obligations to preserve the unitary nature of the Internet”).

²³ Comments of Pennsylvania PSC in *Transition from Circuit-Switched Network*, at 2-3, available at https://portal.neca.org/portal/server.pt/gateway/PTARGS_0_0_307_206_0_43/http%3B/prodnet.www.neca.org/publicationsdocs/wwpdf/1221pa.pdf.

Although the physical layer is not “the Internet,” the latter depends on the former. Some have distinguished between broadband technology *per se* and the Internet as an interactive social phenomenon, a public forum, a “modern day Agora,” a marketplace “for trading and interacting in myriad ways.”²⁴ This very roughly parallels the “dichotomy between basic and enhanced services” developed by the Commission.²⁵

NASUCA’s focus here is not so much on the enhanced services themselves, or on the mythological Internet “cloud” (which has for so long obscured public policy on these issues), but instead on the wired and wireless transmission facilities that make the “cloud” possible (and which are the essential “input” to broadband connectivity). This is where the bottleneck is; this is where the gatekeepers sit. Regulating transport facilities where one company or set of companies has significant market power and effective control over those facilities is not regulating the Internet *per se*.²⁶ Demands that the Commission keep its “hands off the Internet”²⁷ ignore the layered reality of electronic NGN communication.

IV. Competition in, and Significant Market Power over, Transmission Facilities

AT&T, in a recent filing, seizes on the collapsing regulatory categories to call for the end of effective regulation: “[W]ith each passing day, more and more communications services migrate to broadband and IP-based services, leaving the public

²⁴ Whitt, *Evolving Broadband Policy*, *supra*, at 429.

²⁵ NPRM, ¶ 27, citing *Computer II Final Decision*, 77 FCC 2d at 420, ¶ 97.

²⁶ Whitt, *Evolving Broadband Policy*, *supra*, at 429.

²⁷ Previously at www.handsoff.org; see now http://www.sourcewatch.org/index.php?title=Hands_Off_the_Internet.

switched telephone network ('PSTN') and plain-old telephone service ('POTS') as relics of a by-gone era.”²⁸ On this basis, AT&T demands the end of all state regulation,²⁹ of its Carrier of Last Resort (“COLR”) obligations,³⁰ and apparently of all unbundling and interconnection requirements.³¹

AT&T attempts to support these audacious proposals with two assertions: (1) there is robust intermodal competition in the communications marketplace;³² and (2) there are “two networks,” a PSTN/POTS network that is “driving up costs and diverting resources” from the ILECs’ plans to provide the broadband future to consumers, and an “advanced broadband network” capable of delivering that future.³³

Neither of these assertions is true. As shown above, AT&T is not maintaining two networks in any real sense. The same wires and wireless facilities, most of them built with ratepayer money in public streets and right-of-ways, are used in the provision of both POTS and “advanced broadband” services.

Moreover, the transmission facilities that are critical to the supposed intermodal wireless and broadband competitors are largely controlled “by the pre-existing providers

²⁸ Comments of AT&T in *Transition from Circuit-Switched Network*, filed December 21, 2009, at 1 (available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020354036>).

²⁹ *Id.* at 18-19 (lamenting that the Commission has not yet “expressly foreclosed the states from asserting jurisdiction over such [IP-based] offerings”).

³⁰ *Id.* at 24-25.

³¹ *Id.* at 26-27 (arguing for the cancellation of “unbundling and other legacy common-carrier regulations on next-generation loop architecture,” and also – apparently – for a truncation of the “role of state commission-approved interconnection agreements”).

³² *Id.* at 8-9 (“Consumers today have more options for voice services than ever before,” including “cellular” and “VoIP”).

³³ *Id.* at 13.

of fixed telephone service and cable television service.”³⁴ ILECs such as AT&T and Verizon control the middle-mile facilities – also referred to as backhaul or special access lines – that are crucial for the wireless, ISP, and IP-based services and the “competitors” that provide them (to the extent those “competitors” are not in fact owned by the incumbents).

Thus, competition from competitive LEC (“CLEC”) competitors (including VoIP aggregators³⁵) as well as wireless carriers that “purchase a large volume of special access services”³⁶ depends on the non-discriminatory and reasonably-priced provision of special access and other varieties of backhaul. (A unitary, interconnected network also depends on this.) For example, Sprint reports that “the cost of special access amounts to roughly one-third of the ongoing expense of running a cell site.”³⁷ It is for this reason that the Commission remarked in the SBC/AT&T merger proceedings that “both SBC and AT&T provide critical inputs, particularly special access services, to various communications markets.”³⁸

³⁴ Whitt, *Evolving Broadband Policy*, *supra*, at 434; see also Werbach, *Centripetal Network*, *supra*.

³⁵ Because they are not telecommunications carriers entitled to interconnect to the PSTN pursuant to 47 U.S.C. § 251, VoIP providers will often channel their traffic through certificated CLECs, which in turn lease access lines from the ILECs. See, e.g., <http://www.isp-planet.com/cplanet/business/2004/accessline.html>.

³⁶ NRRI/Bluhm & Loube, *Competitive Issues in Special Access Markets* (January 21, 2009 study commissioned by NARUC), available at http://nrri.org/pubs/telecommunications/NRRI_spcl_access_mkts_jan09-02.pdf, at 6 (“One way to understand cell phone networks is as a landline telephone service in which the traditional ‘last mile’ copper loop has been replaced by a two-way radio ... wireless carriers purchase ‘backhaul’ special access circuits ... mainly from ILECs” to connect their cell towers to central switching facilities).

³⁷ Sprint letter to Obama transition team, quoted at <http://arstechnica.com/tech-policy/news/2009/01/report-reignites-fight-over-special-access-rates.ars>.

³⁸ *In the Matter of SBC Communications Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, 20 FCC Rcd 18290, ¶ 20 (2005)

The true extent of the ILECs' dominance in this market is not clearly known, but both the Government Accountability Office ("GAO") and independent observers have found that the ILECs enjoy a market position that allows them to extract excess profits (if not monopoly rents) from these special access and backhaul facilities.³⁹ The GAO has in fact criticized this Commission for not having a broader and deeper empirical understanding of competition (or the lack of it) in the special access market.⁴⁰ Since 2005, the Commission has had an open proceeding to examine questions about special access rates, terms and conditions, in which the claims of the "nochokepoints.org" coalition about ILEC exploitation have been pressed, but which has yet to result in any decision or direction from the Commission.⁴¹

The Obama Administration appears to be aware of the ILECs' market dominance, recently asserting to this Commission that "[b]roadband service providers have an incentive to use their control over those underlying facilities to advantage their value-

³⁹ GAO Report, *FCC Needs to Improve Its Ability to Monitor and Determine the Extent of Competition in Dedicated Access Services* ("GAO Report"), available at <http://www.gao.gov/new.items/d0780.pdf>; Selwyn et al, *Special Access Overpricing and the US Economy, How Unchecked RBOC Market Power is Costing US Jobs and Impairing US Competitiveness*, found as Appendix 1 to the Comments of the AdHoc Telecommunications Users Committee, in *Special Access Rates for Price Cap Local Exchange Carriers*, FCC WCB Docket 05-25 on August 8 2007 (and available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=6519610372>).

⁴⁰ GAO Report at 12-16.

⁴¹ The "no chokepoints" coalition includes a number of the ILECs' competitors pressing their complaints about the monopoly rents extracted by the ILECs based on the ILEC networks' ubiquity and market dominance. See, e.g., <http://www.nochokepoints.org/?q=/about-coalition/who-we-are> (members include Covad, Sprint, Clearwire, CBeyond, T-Mobile, etc.). Their complaints have been taken up by the AdHoc Telecommunications Users Committee, a group of large telecommunications users (excluding carriers). See August 2007 Comments of the AdHoc Telecommunications Users Committee, in *Special Access Rates for Price Cap Local Exchange Carriers*, FCC WCB Docket 05-25, available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=6519610371>. As of December 2009, there had been no decision in this docket. Among the commenters has been British Telecom ("BT"), subject on its home turf to the functional separation remedy discussed below, and complaining here, and recently, of the anti-competitive effects of "premature deregulation" and "vertical integration" of the ILECs in this country. See BT America's November 4, 2009 Notice of *Ex Parte* Communication in *Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket 05-25, *A National Broadband Plan for Our Future*, GN Docket 09-51 at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020244480>.

added service or to disadvantage competitive alternatives. In the absence of robust broadband competition, those providers may be able to profitably act on those incentives to the detriment of consumers and competition.”⁴² The only entities with such facilities-based control are the ILECs, uniquely situated to exercise market power at all levels of the network: Not only do they have a duopoly position in the local loop or last-mile market (generally shared with cable companies), but can also integrate that local loop with substantial middle-mile and special access facilities, as well as long-distance and backbone lines, neither of which cable companies (the ILECs’ closest facilities-based competitors) have in such degree or scope.

In this context, it is problematic that the Administration makes little effort to quantify this dominance, and relies instead on an “*ex parte* filing in this proceeding of the Antitrust Division of the United States Department of Justice” that supposedly “anayl[es] the competitive dynamics in the broadband Internet access marketplace.”⁴³ The Department of Justice (“DoJ”) filing, however, is devoid of any data or metrics by which ILEC market power, particularly in (but not limited to) the middle-mile markets, could be measured. The DoJ excuses its failure by declaring that “the touchstone for this inquiry should be the functional experience from the perspective of the consumer” rather than the actual wires and towers and conduits “used by the provider” in the field.⁴⁴

⁴² January 4, 2010 letter of Lawrence Strickling, Department of Commerce, to Chairman Genachowski, at 4 (available at http://www.ntia.doc.gov/filings/2009/FCCLetter_Docket09-51_20100104.pdf).

⁴³ *Id.* at 1, citing *Ex Parte* Submission of the U.S. Dept. of Justice in GN Docket No. 09-51 (also filed Jan. 4, 2010) (available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020355122>).

⁴⁴ DoJ *Ex Parte* submission, at 12.

V. Threats to the Open Network

The ILECs' marketplace dominance indicates that the primary threat to the end-to-end model of an open and neutral Internet comes from the vertically-integrated carriers, primarily the ILECs but also cable companies, seeking to sell content and/or services along with the basic transport function.⁴⁵ In doing so, the carriers are competing with – and in an inherent conflict of interest position with – others who would sell content or services on the network.

The Commission recognizes that tools for discrimination against such content or service providers parties are available,⁴⁶ which allow network operators to “monetize” their networks and capture the extraordinary network effects for themselves rather than allowing those benefits to accrue to society at large.⁴⁷ It cites recent examples (including the *Madison River* and *Comcast* cases) where network operators used such tools to discriminate against content they disfavored.⁴⁸ Further evidence of discriminatory intent can be adduced: Providers of network routing devices employed by network operators tout their ability to “create bottlenecks” and “sticky” interfaces that will allow the service

⁴⁵ Compare Crawford, *The Internet and the Project of Communications Law*, 55 UCLA L. Rev. 359, 406 (2007) (claims of Christopher Yoo and others favoring “vertically integrated” network operators “are based on a supply-chain view of communications that dictates optimizing infrastructure for a particular kind of use, and that takes the systemic, human reality of communications as exogenous”).

⁴⁶ NPRM, ¶¶ 57-58.

⁴⁷ *Id.*

⁴⁸ *Id.*, ¶¶ 33, 36-37.

provider to extract maximum revenue from its traffic.⁴⁹

In the *Comcast* case, Free Press translated the harm from such strategies into non-technical terms:

Alice telephones Bob, and hears someone answer the phone in Bob's voice. They say "I'm sorry Alice, I don't want to talk to you," and hang up. Except, it wasn't actually Bob who answered the phone, it was Comcast using a special device to impersonate Bob's voice. Comcast might describe this as 'delaying' Alice and Bob's conversation, on the theory that perhaps they'll keep calling each other until some day when Comcast isn't using their special device. They may also invoke the theory that Alice will call other people who are a lot like Bob, but aren't on Comcast's network, so her conversation will only be delayed.⁵⁰

The economic incentive of network operators to block, degrade, delay or distort the traffic of potential competitors seems obvious, and is confirmed by economic analysis.⁵¹

The threat remains real, even if carriers have been on their "best behavior," refraining from the more egregious forms of discrimination and proprietary exclusion while these issues are being publicly debated.

⁴⁹ Financial incentives for network manipulation are also evidenced by the description of network control mechanisms in industry whitepapers: In Cisco System's *Cisco and Service Provider IP*, Cisco asserts the reasons to move to Cisco's "next generation network" include: "Regaining control of networks and the services that run on them to increase control of the business," which allows the network operator to "offer new value-added services (far beyond connectivity) for top-line revenue growth." Cisco concludes "To use an analogy, carriers must move from a basic 'highway' service structure to a 'toll-way' service structure to reap benefits of their broadband investment." Similarly, Alcatel's *Exploiting IP Networks to Create Sticky Services* counsels that "benefits [of "sticky services"] are lower churn and new sources of revenue." Operax' *Efficient network resource control – a source of competitive advantage* paper notes that "to maximize revenues for value added services there must be clear perceived difference in the performance between these services and lower quality services running [on the rest of the Internet]. Bottlenecks are the foundation of this differentiation . . . bottlenecks may be actual resource bottlenecks or managed gates in the network" (emphasis added). Papers on file with NASUCA counsel.

⁵⁰ *Broadband Industry Practices*, WC Docket No. 07-52, Free Press Petition (Nov. 2, 2007) ("Free Press Petition") at p. 11, quoting an Electronic Frontier Foundation blog; *see also Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications*, Memorandum Opinion and Order, 23 F.C.C.R. 13028 (Aug. 20, 2008).

⁵¹ See, e.g., van Schewick, *Towards an Economic Framework for Network Neutrality Regulation*, 5 J. Telecomm. & High Tech. L. 329, 342-68 (2007).

VI. A Proposal to Preserve An Open and Neutral Internet: Separation of Transport from Solution, and a Simplified Regulatory Approach

The observation that “[g]atekeepers in the transmission market could impede competition in the [information] market by preferential treatment of their own data processing” is no less true today than it was when the Commission initiated the *Computer Inquiries*.⁵² The bright-line solution of *Computer II*, requiring that “structurally separate corporations” be created to house basic transmission services on the one hand and value-added information services on the other⁵³ is more appropriate now than ever. The Commission backed away from this clean solution in *Computer III*, however.⁵⁴ More confusion ensued when the Commission put both cable and wireline modem service in the “information services” category, without further distinguishing the telecommunications component of the service.⁵⁵ While the Commission has in the interim clarified that IP-based services *inevitably* have a telecommunications input,⁵⁶

⁵² NPRM, ¶ 26, citing *Computer I Final Decision*, 28 FCC 2d 267, 268 (1971).

⁵³ *Id.* at footnote 32.

⁵⁴ *Id.*

⁵⁵ *In the Matter of Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, FCC No. 02-77, 17 FCC Rcd 4798 (2002), *aff’d sub nom. Nat’l Cable & Telecomms. Assn v. Brand X Servs.*, 545 U.S. 567, 125 S.Ct. 2688 (2005) (cable modem not common carrier telecommunications service); *In the Matters of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 20 FCC No. 05-150, FCC Rcd 14853 (2005) (DSL modem not common carrier telecommunications service).

⁵⁶ For example, the FCC explained in its *Universal Service Order* that VoIP inevitably has such a telecommunications component when it interconnects with the PSTN:

[B]y definition, interconnected VoIP services are those permitting users to receive calls from and terminate calls to the PSTN. . . . [W]e find interconnected VoIP providers to be “providing” telecommunications regardless of whether they own or operate their own transmission facilities or they obtain transmission *from third parties*. In contrast to services that merely use the PSTN to supply a finished product to end users, interconnected VoIP supplies PSTN transmission itself to end users.

Universal Service Contribution Methodology, 21 F.C.C.R. 7518, 7539-40, ¶41 (2006) (emphasis added), *aff’d sub nom. Vonage Holdings v. FCC*, 489 F.3d 1232, 1239 (DC Cir. 2007).

substantial confusion still exists, as manifest by the mushrooming litigation around IP-PSTN connections.⁵⁷

NASUCA is concerned that this confusion will only multiply, because of what Lawrence Lessig observed ten years ago in his ground-breaking book *Code: Economic self-interest can now be implemented deep in the software that determines network architecture.*⁵⁸ Thus private computer code replaces government regulation as the sovereign.⁵⁹ It is safe to say that neither the Commission nor even the most knowledgeable consumer is aware of the full extent of discriminatory network conduct. Thus, any application on a case-by-case basis of a “reasonable network management” standard, as necessary as such a standard may be, could be an invitation to further rounds of litigation and expense. NASUCA is concerned that neither consumers nor staff at the Commission and state agencies will have the resources to uncover discriminatory network practices, and enforce the six principles the Commission proposes to codify.

NASUCA believes that the true solution lies in a simplified regulatory approach and bright-line rules that eliminate the economic incentives of the network operator to discriminate against third-party content, i.e., a return to the concept of functional or

⁵⁷See, e.g., *In the Matter of Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services Are Exempt from Access Charges*, Order, 19 FCC Rcd 7457 (2004) (IP-in-the-Middle). A central question in much of this litigation is the hairsplitting as to what constitutes a “net protocol conversion.” See, e.g., *S. New Engl. Tel. Co. v. Global NAPs*, 2005 U.S. Dist. LEXIS 25898, at *14-15.

⁵⁸ See, e.g., LAWRENCE LESSIG, CODE (1st Ed., 1999), at 86 (“[I]f in the middle of the nineteenth century it was [social] norms that threatened liberty, and at the start of the twentieth state power that threatened liberty, and during much of the middle twentieth the market that threatened liberty, my argument is that we understand how in the late twentieth century, and into the twenty first, it is a different regulator – code – that should be our concern”), 58 (“different architectures embed different values”).

⁵⁹ *Id.* at 205 (“we should understand the code in cyberspace to be its own sort of regulatory regime”), 190 (“there is a sovereignty in cyberspace … control of that sovereign is essential if we are to achieve democratic control over an extraordinarily important aspect of real-space life”).

structural separation adopted in *Computer II*. Thus, at a minimum, the ILECs would be required to place their physical plant, i.e., their network facilities, in a separate operating division, as described more fully below. NASUCA is not alone in suggesting this.

Professor Crawford, for instance, goes further, arguing that only a *full structural* separation (i.e., the spin-off of the network company into a legally separate entity) will be sufficient to secure an open and neutral network:

Th[e] evidence drives towards the conclusion that nothing short of actual separation between transport and content ... will be effective to shield communications competition from the depredations of the transport companies. Any attempt to rely on regulatory walls between functions of vertically-integrated carriers involved in both “information” and “communications” businesses will be fruitless.⁶⁰

Whether “functional” or “structural,” the separation solution should be accompanied by two other regulatory refinements and/or clarifications: (1) consistent treatment of all electronic transmission capability, regardless of whether provided by copper loops, coaxial cable, fiber, or wireless technologies; and (2) adoption of a “significant market power” test to aid the Commission in determining more precisely where the separation remedy should be implemented.

a. *Separation and the “Equivalence of Inputs”*

As explained further below, the functional/structural separation model offers an elegant solution to the problem of a vertically-integrated network provider’s incentive to discriminate, and to the intractable difficulty in ferreting out that discrimination: It simply eliminates the motivation for discrimination. Where the network operator is confined to providing wholesale-only network transport, selling to third-parties and its

⁶⁰ Crawford, *Transporting Communications*, *supra*, 89 B.U. Law R. at 927.

own affiliates on the same terms, its affiliates will by definition pay the same price and abide by the same terms and conditions as third parties. While this is not without its own enforcement problems, these problems would be dwarfed by the determination on a case-by-case basis of what is “reasonable network management.”

b. *Unified Regulatory Scheme*

There has been a growing recognition that different regulatory regimes for nominally distinct technologies no longer reflect reality. The answer, however, is not to eliminate regulation, or bring it to the lowest common denominator; instead the need is for a unified regime that best protects consumers.

Fiber optic facilities, for example, can be used to transmit both legacy PSTN and VoIP telephony and other broadband applications. As the Pennsylvania PSC stated in its recent comments on IP-PSTN transmission, “To broadly label [all] broadband network facilities as ‘information services’ defeats on paper this network engineering reality.”⁶¹

Other countries have adopted regulatory regimes that treat all transmission facilities on an equal basis.⁶² Fiber is *the* transmission vehicle of the future,⁶³ and must

⁶¹ Comments of the Pennsylvania PSC on *Transition from Circuit-Switched Network*, *supra*, at 2-3.

⁶² The German Telecommunications Law (*Telekommunikationsgesetz* or *TKG*), for example, applies equally to telephone, cable, broadcast, and other forms of electronic transmission. See TKG § 3(27) (“telecommunication network” includes “fixed and mobile telephony, cable, broadcast, optical fiber, satellite networks, powerlines, and other devices capable of transmitting electronic signals”).

⁶³ Susan Crawford explains why “the future is in fiber.” Crawford, *Transporting Communications*, 89 B.U.L.Rev. 871, 929 (2009) (“Optical fiber is the most permissive communications medium ever invented ... capable of carrying electromagnetic signals in the form of photons across many terahertz of spectrum ... [which] could allow thousands of different two-way communications (different ‘channels,’ in a sense) to be sent along a single, hair-thin fiber at the same time”). Prof. Crawford also points out, however, that not all fiber is easily unbundled. *Id.* at 932-34, and fns. 303-305 (discussing how a passive optical network or PON, such as being deployed by Verizon, is “fundamentally, vertically integrated” while “a point-to-point [fiber architecture] offers more possibilities for regulatory measures such as Local Loop Unbundling and Wholesale Broadband Access” network .

be regulated as a basic common carriage facility.⁶⁴

c. *Significant Market Power as a Trigger*

Significant market power (“SMP”) is a concept developed by the European Union – which both critics and supporters agree is in the first instance a market-based federation.⁶⁵ As Prof. Frieden explains, the European model “establishes a harmonized, horizontal regulatory model that subjects [information and communications] industries to government oversight geared to remedy-specific instances of ineffective competition.”⁶⁶

Under the EU’s Framework Directive, “[a]n undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers.”⁶⁷ As a proxy for market power, the European Commission’s Guidelines on Market Analysis suggest computing market shares, typically based on sales volume or sales value: SMP is determined based on a “number of criteria,” but is normally viewed as being a potential problem where the market share exceeds 40%, and

⁶⁴ Compare TKG § 3(27).

⁶⁵ See generally Frieden, *Adjusting the Horizontal and Vertical*, *supra*, 55 Fed. Comm. L.J. at 247.

⁶⁶ *Id.* at 213.

⁶⁷ Directive 2002/21/EC of the European Parliament on a Common Regulatory Framework for Electronic Communication and Devices (Framework Directive), Article 14(2), available at http://ec.europa.eu/information_society/topics/telecoms/regulatory/new_rf/documents/l_10820020424en00330050.pdf; see also J. Scott Marcus, *The Potential Relevance to the United States of the European Union’s Newly Adopted Regulatory Framework for Telecommunications*, at 28 (FCC, OPP Working Paper Series No. 36) (2002); Marcus, *Europe’s New Regulatory Framework for Electronic Communication in Action* (2004), at § 3.2, available at ftp://ftp.zew.de/pub/zew-docs/div/IKT04/Paper_Marcus_Invited.pdf

it is assumed to exist where the market share exceeds 50%.⁶⁸ A finding of SMP is then sufficient to justify *ex ante* rate and structural regulation, as further described below.

SMP analysis provides a metric to evaluate the incumbents' claims that market competition will allow consumers to "vote with their feet,"⁶⁹ and points the Commission to an empirical analysis of asserted competition, including questions about how many facilities-based platforms even the most concentrated urban populations could support.⁷⁰

VII. Real-World Implementation of a Separation Remedy

The Commission asks for "draft proposals" to achieve the goal of an open Internet.⁷¹ NASUCA proposes a model already implemented by the Commission's British counterpart, Ofcom, and in use in the United Kingdom and other countries.

Several years ago, Ofcom decided that BT had obtained such a degree of SMP in both last-mile and backhaul segments of the network as to constitute an impediment to competition. These dangers led to a negotiated "functional separation" between BT and

⁶⁸ Commission Guidelines on Market Analysis and the Assessment of Significant Market Power, at ¶ 75, available at http://ec.europa.eu/information_society/topics/telecoms/regulatory/new_rf/documents/smp_guidelines/c_16520_020711en00060031.pdf; see also Marcus, *Europe's New Regulatory Framework*, *supra*.

⁶⁹ Verizon June 8, 2009 Comments in the *National Broadband Plan*, Docket No. 09-51, at 85, available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=6520220110>. While the ISP/broadband market may experience some competition, the offerings of the ISP are often contingent on what the underlying transport provider offers. If there is effectively only one or two network operators, such claimed consumer freedom is more illusory than real. In some markets, backhaul for instance, the incumbents have close to a monopoly.

⁷⁰ Compare WIK Consulting, *The Economics of Next Generation Access*, Executive Summary ¶ 9, available at http://www.wik.org/content_e/ecta/ECTA%20NGA_masterfile_2008_09_15_V1.pdf (concluding that fiber deployment "is not profitable in any of the six countries analyzed on the basis of current costs").

⁷¹ NPRM, ¶ 16.

its underlying transport subsidiary, Openreach.⁷² All the last-mile and backhaul infrastructure of BT was put into Openreach, a separate, “ring-fenced,” wholesale-only division, which was then required to sell access to this infrastructure on the same terms to BT and third-party service providers.⁷³

The genius of the functional separation approach is in this core concept of “equivalence of inputs,”⁷⁴ which creates a level playing field for third-party competitors. At the same time, the required separation – enforced by Ofcom with full subpoena powers – solves the most difficult problems associated with vertically integrated network operators. This approach has led to an explosion of new service providers, lower prices, and general acceptance by both industry and consumers.⁷⁵

⁷² In 2002, the British Parliament passed the Enterprise Act, which greatly strengthened antitrust enforcement in England. *See* http://www.opsi.gov.uk/acts/acts2002/ukpga_20020040_en_1.htm. Also in 2002, Parliament passed a Communications Act creating the Office of Communications (Ofcom), and in 2003 passed another Communications Act authorizing Ofcom to enforce provisions of the Enterprise Act, and to police anti-competitive conduct or situations in the communications markets. *See* 2003 Act, at §§ 369, available at http://www.opsi.gov.uk/acts/acts2003/ukpga_20030021_en_1. This legal authority resulted in a settlement between Ofcom and British Telecom in 2005, “Undertakings given to Ofcom by BT pursuant to Enterprise Act 2002,” found at <http://www.ofcom.org.uk/telecoms/btundertakings/btundertakings.pdf> (“Undertakings”).

⁷³ In the Ofcom/BT model, Openreach was located in a separate building, and had separate management and incentive structures. *Id.* The concept of functional separation received recent domestic exposure at a day-long conference sponsored by Columbia’s Institute for Tele-Information (“CITI”). The presentations are available here, <http://www4.gsb.columbia.edu/citi/networkseparation>, including presentations by Eli Noam, Kevin Werbach, and BT Global Services Chief Counsel Richard Nohe.

⁷⁴ The BT Undertakings also require such non-discriminatory provision of service. *See* Undertakings, *supra* note [72], at ¶ 3.1.1 (“BT shall apply Equivalence of inputs to the following [wholesale] products . . . ,” defined as provision of “the same product or service to all Communications Providers (including BT) on the same timescales, terms and conditions”).

⁷⁵ Ofcom published a report on May 29, 2009, confirming these results. *See* www.ofcom.org.uk/telecoms/btundertakings/impact_srt/; *see also* “Functional Separation: the UK Experience,” Presentation of Ofcom’s Tom Kiedrowski, available at <http://www.wik.org/content/erc/Kidrowski,%20Tom%20-%20%200408.pdf>. Even BT’s Chief Counsel Richard Nohe has agreed that the functional separation agreement had provided “increased clarity” and competition. *See* http://www4.gsb.columbia.edu/rt/null?&exclusive=filemgr.download&file_id=69168&rtcontentdisposition=filename%3DNohe.pdf

Britain's approach was followed in November 2009 by the European Parliament, which authorized member states to adopt similar form of functional or structural separation: "Where a national regulatory authority concludes that [existing] obligations ... have failed to achieve effective competition and that there are important and persisting competition problems and/or market failures identified in relation to the wholesale provision of certain access product markets, it may ... impose an obligation on vertically integrated undertakings to place activities related to the wholesale provision of relevant access products in an independently operating business entity."⁷⁶ Thus member states can require the separation of the transport layer from the application (service and content) layer of any electronic communications network where significant market power is found, effectively requiring that the transport layer be run as a common carrier.⁷⁷

Again, central to such a separation is the "equivalence of inputs" concept:

That [independently operating, wholesale-only] business entity shall supply access products and services to all undertakings, including to other business entities within the parent company, on the same timescales, terms and conditions, including those relating to price and service levels, and by means of the same systems and processes.⁷⁸

⁷⁶ Directive of the European Parliament and of the Council Amending Directives 2002/21/EC on a Common Regulatory Framework for Electronic Communications Networks and Services, November 25, 2009, at Article 13a(1), available at <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+JOINT-TEXT+C7-2009-0273+0+DOC+WORD+V0//EN&language=EN>.

⁷⁷ The history of the European model is accessible (along with useful background information) through the EurActiv website at <http://www.euractiv.com/en/infosociety/telecoms-internet-regulation-review/article-169286#links>; compare common carrier duty of non-discrimination under U.S. law, 47 U.S.C. § 202. The Ofcom/EU model resembles the "structural separation" found in the energy sector. See e.g., Reiter, *The Contrasting Policies of the FCC and FERC Regarding the Importance of Open Transmission Networks in Downstream Competitive Markets*, 57 Fed. Comm. L.J. 243, 254 (2005) (requirement that gas pipelines "separate ... their sales services from their transportation services at an upstream point near the production area").

⁷⁸ November 2009 Directive, *supra*, at Article 13(a)(1).

The EU's rationale for the functional/structural separation remedy speaks to many of the Commission's concerns in this proceeding:

The purpose of functional separation, whereby the vertically integrated operator is required to establish operationally separate business entities, is to ensure the provision of fully equivalent access products to all downstream operators, including the operator's own vertically integrated downstream divisions. Functional separation has the capacity to improve competition in several relevant markets by significantly reducing the incentive for discrimination and by making it easier to verify and enforce compliance with non-discrimination obligations.⁷⁹

VIII. Neutrality Across Platforms

The Commission asks “to what extent the principles should apply to non-wireline forms of Internet access.”⁸⁰ Because the public communications network is now a unified interconnected network, and will hopefully remain so, neutrality rules must apply across platforms. The fact that the wireless marketplace evolved differently than the wireline or broadband markets should not deter the Commission from correcting that situation. Just as number portability was a boon to competition, so too will device portability (consistent with the third of the four freedoms) enhance competition. A consumer paying AT&T, Verizon, T-Mobile or Sprint \$30 per month for service, should be able to connect any compatible device to that system, and the devices themselves should be portable across service providers (independent of the length of contract between the consumer and a given service provider).

⁷⁹ *Id.* at ¶ 61. Legislative history of the 2009 amendments is available at <http://www.europarl.europa.eu/oeil/FindByProcnum.do?lang=en&procnum=COD/2007/0247>.

⁸⁰ NPRM, ¶ 16.

IX. Enforcement

There are two prerequisites to any successful attempt to enforce network neutrality: (1) clear, bright-line *ex ante* rules;⁸¹ and (2) the political will and legal authority to enforce those rules. The Ofcom experience described above suggests, however, that the passage and implementation of any such clear and effective rules, and certainly any bright-line structural solution, will only be possible if there is a credible threat of effective, coordinated, and drastic action against companies that continue to abuse their position of trust as carriers of the public communications network.⁸²

In this regard, we note the failure of U.S. antitrust law generally (and the inaction of the Department of Justice) to reign in ILEC power.⁸³ Despite the hopes of some, FTC disclosure and fair business practice law seem equally ineffective in the face of the ILEC juggernaut.⁸⁴ NASUCA believes that the Commission would be grievously mistaken were it to rely on such *ex post facto* remedies rather than clear, bright-line *ex ante* rules

⁸¹ Cf. LESSIG, THE FUTURE OF IDEAS 162 (2001/2002) (“never in history of telecommunications has a network voluntarily been opened after being closed”).

⁸² As described in footnote [71] above, the BT Undertakings came only after the British Parliament passed an enhanced antitrust law (http://www.opsi.gov.uk/acts/acts2002/ukpga_20020040_en_1.htm) and then gave the UK’s telecommunications regulators the authority to enforce that law (http://www.opsi.gov.uk/acts/acts2003/ukpga_20030021_en_1).

⁸³ See *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398 (2004) (47 USC § 251 interconnection claims cannot be enforced by way of antitrust claim); *Pacific Bell dba AT&T v. Linkline Commns.*, 129 S.Ct. 1109 (2009) (same - claim of ISPs that providers of digital subscriber line (“DSL”) service for connecting to the Internet “squeezed” the ISPs’ profit margins was not cognizable under antitrust law, since providers were under no obligation to sell wholesale DSL service to the ISPs).

⁸⁴ Compare Sandoval, *Disclosure, Deception ...*, *supra*, 78 Fordham L.Rev. at 711, *passim* (suggesting deceptive practices claims against ISPs’ discriminatory practices).

(accompanied by robust enforcement of same) to guarantee an open and neutral internet.

Ex post facto remedies have proven not to work.⁸⁵

X. Conclusion

Some will argue that the Commission should satisfy itself at this point with disclosure requirements and perhaps a few conduct rules. NASUCA believes that these sorts of half-measures will only result in the same litigation trench warfare and slow dissipation of competition that accompanied the failed attempt to implement the unbundling requirements of the 1996 Telecommunications Act.

NASUCA urges the Commission to act boldly and adopt a bright-line solution to the problem of preserving network neutrality. It is essential to separate the transport network on the one hand, from the network services, applications, and content that ride on that network on the other.⁸⁶ The British experience proves that a separation solution

⁸⁵ Professor Crawford notes that “antitrust law does not deal well with platforms. It assumes Internet access is just like any other marketplace, when in fact the core of Internet access is utility-like basic transport ... with its single-minded focus on firms competing in established markets, [it] is ill equipped to deal with discrimination by providers of physical transport networks.” Crawford, *Transporting Communications*, *supra*, 89 B.U. L. Rev. at 919. Equally telling is the fact that antitrust law has failed, repeatedly, at the Supreme Court and in lower courts, to show that it can encompass telecommunications law or make a dent in the ILECs’ market power, as shown by the *Trinko* and *Linkline* cases cited above.

⁸⁶ See, e.g., June 8, 2009 Opening Comments of Kodiak Kenai Cable (at 8-9), available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=6520220205>; Free Press (at 79 and fn. 105, referencing British Telecom’s “Undertakings”), available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=6520219926>; as well as comments by NASUCA (at 59 *ff*), NATOA, Public Knowledge, and NTCA in that docket. See, e.g., NTCA Comments at 36 (“Commission should require all vertically integrated Internet backbone and special access (middle-mile) transport provider rates to be cost-based and non-discriminatory”), available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=6520219973>.

will enhance investment and rapidly increase the number of competitive ISPs and carriers.⁸⁷

The separation remedy is one that the Commission has used before in *Computer II*, and one that the Commission clearly has the power to re-adopt. Only such a comprehensive approach will work here.

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⁸⁷ See presentation of BT counsel Nohe at http://www4.gsb.columbia.edu/rt/null?&exclusive=filemgr.download&file_id=69168&rtcontentdisposition=filename%3DNohe.pdf.