

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

In the Matters of)	
)	
Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications)	File No. EB-08-IH-1518
)	
Broadband Industry Practices)	WC Docket No. 07-52
Petition of Free Press et al. for Declaratory Ruling that Degrading an Internet Application Violates the FCC’s Internet Policy Statement and Does Not Meet an Exception for “Reasonable Network Management”)	
)	

MEMORANDUM OPINION AND ORDER

Adopted: August 1, 2008

Released: August 20, 2008

By the Commission: Chairman Martin and Commissioners Copps and Adelstein issuing separate statements; Commissioners Tate and McDowell dissenting and issuing separate statements.

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I. INTRODUCTION

1. We consider whether Comcast, a provider of broadband Internet access over cable lines, may selectively target and interfere with connections of peer-to-peer (P2P) applications under the facts of this case. Although Comcast asserts that its conduct is necessary to ease network congestion, we conclude that the company’s discriminatory and arbitrary practice unduly squelches the dynamic benefits of an open and accessible Internet and does not constitute reasonable network management. Moreover, Comcast’s failure to disclose the company’s practice to its customers has compounded the harm. Accordingly, we institute a plan that will bring Comcast’s unreasonable conduct to an end. In particular, we require Comcast within 30 days to disclose the details of their unreasonable network management practices, submit a compliance plan describing how it intends to stop these unreasonable management practices by the end of the year, and disclose to both the Commission and the public the details of the network management practices that it intends to deploy following termination of its current practices.

II. BACKGROUND

2. This *Order* addresses whether it is a reasonable network management practice for Comcast to interfere with its customers' use of peer-to-peer networking applications, including those that use the BitTorrent protocol. Before we address the specific facts in this case, we explain what BitTorrent does and how Comcast's practice affects Internet users.

3. When an Internet user opens a webpage, sends an email, or shares a document with a colleague, the user's computer usually establishes a connection with another computer (such as a server or another end user's computer) using, for example, the Transmission Control Protocol (TCP).¹ For certain applications to work properly, that connection must be continuous and reliable. Computers linked via a TCP connection monitor that connection to ensure that packets of data sent from one user to the other over the connection "arrive in sequence and without error," at least from the perspective of the receiving computer.² If either computer detects that "something seriously wrong has happened within the network," it sends a "reset packet" or "RST packet" to the other, signaling that the current connection should be terminated and a new connection established "if reliable communication is to continue."³

4. BitTorrent is an open-source, peer-to-peer networking protocol that has become increasingly popular among Internet users in recent years.⁴ Unlike traditional methods of file sharing, which typically require establishing a single TCP connection between a user's computer and a single server, BitTorrent employs a decentralized distribution model: Each computer in a BitTorrent "swarm" is able to download content from the other computers in the swarm, and in turn each computer also makes available content for those same peers to download, all via TCP connections. Furthermore, a computer can download different portions of the same content from multiple computers simultaneously, with each computer providing a different portion of the same content. (For example, a computer could obtain different portions of a video file from several different other computers in the swarm.)⁵ BitTorrent thus harnesses

¹ See RFC 793/Internet Standard STD 7, available at <http://tools.ietf.org/html/rfc793> (last visited July 31, 2008). "TCP is the dominant transport-layer protocol on the Internet today, carrying more than 90% of all data traversing backbone links." Letter from Jack Zinman, General Attorney, AT&T Services, Inc., to Marlene H. Dortch, Secretary, FCC, Attach. at 1 (Apr. 25, 2008) (AT&T RST Packet *Ex Parte*) (all letters were filed in WC Docket No. 07-52 unless otherwise noted). Other common protocols for packet-encapsulated data include User Datagram Protocol and Encapsulating Security Payload. See *Broadband Industry Practices*, WC Docket No. 07-52, Notice of Inquiry, 22 FCC Rcd 7894, 7896 n.16 (Apr. 16, 2007) (*Broadband Industry Practices Notice*). Internet users rely on the Internet Protocol to perform the lower-level function of routing packets from one computer to the next. *IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863, 4866, para. 4 (2004) (*IP-Enabled Services Notice*).

² *IP-Enabled Services Notice*, 19 FCC Rcd at 4866 n.12.

³ AT&T RST Packet *Ex Parte*, Attach. at 2; see also EFF Reply Comments, Attach. at 1 ("When received, RST packets will generally cause ordinary networking software to close its side of the connection in response.").

⁴ See *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; Computer III Further Remand Proceedings; Bell Operating Company Provision of Enhanced Services, 1998 Biennial Review — Review of Computer III and ONA Safeguards and Requirements; Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities; Broadband Industry Practices*, CC Docket Nos. 02-33, 01-337, 95-20, 98-10, GN Docket No. 00-185, CS Docket No. 02-52, WC Docket No. 07-52, Petition for Declaratory Ruling of Free Press, Public Knowledge, Media Access Project, Consumer Federation of America, Consumers Union, Information Society Project at Yale Law School, Professor Charles Nesson, Co-Director of the Berkman Center for Internet & Society, Harvard Law School, Professor Barbara van Schewick, Center for Internet & Society, Stanford Law School, at 7 (Nov. 1, 2007) (Free Press Petition).

⁵ *Broadband Industry Practices*, WC Docket No. 07-52, Petition to Establish Rules Governing Network Management Practices by Broadband Network Operators of Vuze, Inc., at 7 (Nov. 14, 2007) (Vuze Petition)

the numerous individual Internet connections maintained by its users, rather than relying on a single, central pipeline, to distribute large files “cheaply and quickly,”⁶ and the efficiency of that peer-to-peer network is dependent directly on Internet users’ ability to establish TCP connections for both downloading and uploading content. Although once relegated to serving, in most cases, the savviest Internet users with unsavory or even unlawful purposes,⁷ BitTorrent and other peer-to-peer technologies, such as Gnutella, have entered the mainstream. New online content distributors, such as Vuze, Inc., rely on BitTorrent⁸ to distribute video programming to millions of online viewers legally,⁹ as do several established distributors such as CBS, Twentieth Century Fox, and Sports Illustrated.¹⁰

5. Peer-to-peer applications, including those relying on BitTorrent, have become a competitive threat to cable operators such as Comcast because Internet users have the opportunity to view high-quality video with BitTorrent that they might otherwise watch (and pay for) on cable television. Such video distribution poses a particular competitive threat to Comcast’s video-on-demand (“VOD”) service. “VOD . . . operates much like online video, where Internet users can select and download or stream any available program without a schedule and watch it any time, generally with the ability to fast-forward, rewind, or pause the programming.”¹¹ Comcast has recently placed a significant emphasis on expanding its VOD business, and its VOD revenues have experienced robust growth.¹² Moreover, Comcast has “begun incorporating its VOD content online through sites competing directly with BitTorrent protocol sites.”¹³

6. Comcast subscribers began to notice that they had problems using BitTorrent and similar technologies over their Comcast broadband connections. Last year, their complaints began to receive widespread attention in the press.¹⁴ When first confronted with these press reports, Comcast — the nation’s second largest provider of broadband Internet access services — misleadingly disclaimed any responsibility for the customers’ problems. For example, a Comcast spokesman stated: “We’re not

(“Torrent technologies leverage the power of many individual computers by enabling each computer interested in a piece of content to obtain small pieces of it from multiple other computers, and simultaneously play the same role to others who seek the same content in the future.”).

⁶ *Id.*; see also *id.* at 7–8 (“[T]orrent technology uses fewer resources than traditional non-P2P protocols such as HTTP because distributed computing permits uploads and downloads to be resumed mid-way rather than restarted, and transmission errors can easily be fixed without resending an entire file.”); Trausch Comments at 2 (“[BitTorrent’s] protocol is far more efficient at transferring files which are in high demand than conventional client-server file and resource distribution mechanisms . . .”).

⁷ The infamy of the Pirate Bay — “the most notorious, most hunted digital-piracy outfit in the world” — largely stems from its assisting BitTorrent users in downloading a vast array of videos in violation of copyright laws. See Dan Mitchell, *Pirates Take Sweden*, New York Times, Aug. 19, 2006, available at <http://www.nytimes.com/2006/08/19/business/19online.html> (last visited July 31, 2008).

⁸ See Vuze Petition at 7 n.8.

⁹ See *id.* at 5.

¹⁰ See *id.* at 8.

¹¹ Free Press Comments at 48.

¹² See *id.* at 48–52. For example, Comcast’s pay-per-view revenue increased 22% in 2007. See Comcast Press Release, “Comcast Reports 2007 Results and Provides Outlook for 2008,” at 3 (Feb. 14, 2008).

¹³ Free Press Comments at 51.

¹⁴ See, e.g., Ernesto, *Comcast Throttles BitTorrent Traffic, Seeding Impossible*, TorrentFreak, Aug. 17, 2007, available at <http://torrentfreak.com/comcast-throttles-bittorrent-traffic-seeding-impossible/> (last visited July 31, 2008); Scott Gilbertson, *It’s Comcastic: Is Comcast Blocking Users from Seeding Torrents?*, Wired Monkey_Bites, Aug. 20, 2007, available at <http://blog.wired.com/monkeybites/2007/08/its-comcastic-i.html>.

blocking any access to any application, and we don't throttle any traffic."¹⁵ Rather, he indicated that Comcast's policy was to "pro-actively contact" those customers using what Comcast deemed to be excessive bandwidth "via phone to work with them and address the issue or help them select a more appropriate commercial-grade Comcast product."¹⁶

7. The Associated Press (AP) subsequently conducted several nationwide tests to investigate the allegations that Comcast was interfering with its customers' use of peer-to-peer applications, including BitTorrent.¹⁷ On October 17, 2007, the AP reported the results of these tests: It concluded that Comcast "actively interferes with attempts by some of its high-speed Internet subscribers to share files online."¹⁸ "Comcast's interference affects all types of content, meaning that, for instance, an independent movie producer who wanted to distribute his work using BitTorrent and his Comcast connection could find that difficult or impossible."¹⁹ The AP found that Comcast's conduct had a "drastic effect . . . on one type of traffic — in some cases blocking it rather than slowing it down."²⁰

8. AP also concluded that "the method used" by Comcast was "difficult to circumvent and involves [Comcast] falsifying network traffic."²¹ Specifically, "when one BitTorrent user attempts to share a complete file with another user" via a TCP connection, Comcast's servers (through which its users' packets of data must pass) send to each user's computer an RST packet "that looks like it comes from the other [user's] computer" and terminates the connection.²² One month after the AP's report, the Electronic Frontier Foundation (EFF) published the results of its own testing and similarly concluded that Comcast was selectively targeting customers who uploaded files using BitTorrent and other peer-to-peer protocols.²³ Like AP, EFF also found examples where the Comcast's "packet forgery prevent[ed] the transfer of data."²⁴

9. Following these tests, Comcast changed its account and admitted that it targets peer-to-peer traffic for interference. Specifically, Comcast asserted that "when P2P unidirectional upload sessions . . . reach a predetermined congestion threshold in a particular neighborhood," Comcast's network "issues instructions called 'reset packets.'"²⁵ Comcast further claimed that it sent RST packets to peer-to-peer TCP connections being used to upload content until the traffic "in the neighborhood drops below the

¹⁵ Marguerite Reardon, *Comcast Denies Monkeying with BitTorrent Traffic*, CNETNews.com News Blog, August 21, 2007, available at http://www.news.com/8301-10784_3-9763901-7.html (last visited July 31, 2008).

¹⁶ *Id.*

¹⁷ Peter Svensson, *Comcast Blocks Some Internet Traffic, AP Testing Shows*, Associated Press, Oct. 19, 2007.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

²³ See EFF Reply Comments, Attach. at 2 ("EFF's tests corroborated [the Associated Press'] results — comparisons of packet logs between two communicating parties showed that an intervening computer (almost certainly Comcast's) was injecting forged RST packets into the communications, effectively telling both ends of the connection to stop communicating."). Given the current state of the record, we decline to address EFF's allegations that Comcast may have interfered with TCP connections using other non peer-to-peer protocols, such as hyper text transfer protocol (HTTP). *Id.* at 3.

²⁴ See *id.* at 5.

²⁵ Comcast Comments at 27–28.

predetermined level.”²⁶ In all, Comcast claimed that it sent RST packet “only during periods of peak network congestion”²⁷ and “only . . . during periods of heavy network traffic.”²⁸ Evidence in the record, however, contradicts this claim. One Comcast customer, for example, conducted numerous tests and reported that the level of interference with his use of peer-to-peer applications was approximately equal, “regardless of the time of day or night, regardless of the day of the week, and [despite] the presumable differences in network congestion during prime time and non-prime time hours of use.”²⁹ No matter the time of the test, all of the customer’s Gnutella upload requests were thwarted and approximately 40% of all his BitTorrent established upload connections were reset. In short, the customer concluded that for Comcast’s claim of neighborhood-specific, congestion-targeted interference to be accurate, “my neighborhood would have to be under the same amount of congestion for 24 hours a day, 7 days a week, 365 days a year.”³⁰ Confronted with this and other evidence, Comcast changed its story yet again,³¹ and admitted that its “current P2P management is triggered . . . regardless of the level of overall network congestion at th[e] time, and regardless of the time of day.”³²

10. On November 1, 2007, Free Press filed with the Commission a complaint against Comcast³³ and asked the Commission to declare “that an Internet service provider violates the [Commission’s] Internet Policy Statement when it intentionally degrades a targeted Internet application.”³⁴ Thereafter, over twenty thousand Americans similarly complained of “Comcast’s blatant and deceptive blocking of peer-to-peer communications” and requested the Commission to “take immediate action to put an abrupt end to this harmful practice.”³⁵ On January 11, 2008, the Commission’s Enforcement Bureau requested a response from Comcast,³⁶ and Comcast responded two weeks later.³⁷

²⁶ Defendants’ Memorandum of Law in Support of Motion for Judgment on the Pleadings at 6, *Hart v. Comcast of Alameda*, No. C-07-06350-PJH (N.D. Cal. Mar. 14, 2008) (Comcast Motion for Judgment).

²⁷ Comcast Comments at 31.

²⁸ Letter from Mary McManus, Senior Director of FCC and Regulatory Policy, Comcast Corporation, to Kris A. Monteith, Chief, Enforcement Bureau, File No. EB-08-IH-1518, at 5 (Jan. 25, 2008) (Comcast Response Letter).

²⁹ Topolski Comments at 3–4 (Feb. 25, 2008).

³⁰ *Id.* at 4.

³¹ Comcast’s statements in its comments and response to Free Press’s complaint raise troubling questions about Comcast’s candor during this proceeding. *See* 47 C.F.R. § 1.17.

³² Letter from Kathryn A. Zachem, Vice President of Regulatory Affairs, Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, at 5 (July 10, 2008) (Comcast Technical *Ex Parte*).

³³ Formal Complaint of Free Press and Public Knowledge against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications, File No. EB-08-IH-1518 (Nov. 1, 2007) (Free Press Complaint). Free Press sought, among other remedies, a permanent injunction because such a remedy would redress society’s “loss of unpredictable innovation” and would “encourage innovation in Internet applications and content, as well [as] promot[e] the deployment and uptake of high-speed Internet access.” *Id.* at 33; *see also* Jonathan L. Zittrain, *The Generative Internet*, 119 Harv. L. Rev. 1974, 1987–94 (2006) (discussing the open Internet’s importance in sparking innovation).

³⁴ Free Press Petition at i; *see also* *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; 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; Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, CC Docket Nos. 02-33, 01-337, 98-10, 95-20, GN Docket No. 00-185, CS Docket No. 02-52, Policy Statement, 20 FCC Rcd 14986 (2005) (*Internet Policy Statement*).

³⁵ Requests from Numerous Parties, File No. EB-08-IH-1518 (aggregation of 22,284 requests sent to fccinfo@fcc.gov from November 1, 2007, through January 14, 2008).

11. Free Press also filed with the Commission a petition for declaratory ruling asking the Commission to “clarify that an Internet service provider violates the FCC’s Internet Policy Statement when it intentionally degrades a targeted Internet application.”³⁸ Separately, Vuze, Inc. filed a petition for rulemaking asking the Commission “to adopt reasonable rules that would prevent the network operators from engaging in practices that discriminate against particular Internet applications, content or technologies.”³⁹ The Commission’s Wireline Competition Bureau sought comment on Free Press’s petition and Vuze’s petition on January 14, 2008,⁴⁰ and the Commission has received more than 6,500 comments in response. In addition, the Commission held public hearings on the complaint and these petitions at Harvard Law School in Cambridge, Massachusetts, on February 25, 2008, and at Stanford Law School in Palo Alto, California, on April 17, 2008, with testimony from a diverse panel of experts — both technical and legal, industry and academic — along with numerous members of the public.

III. DISCUSSION

A. Our Authority to Enforce Federal Policy

12. The Internet is an unprecedented communications medium. Unlike newspapers or radio or broadcast television or even on-demand television, the Internet gives Americans “a great degree of control over the information that they receive.”⁴¹ Consequently, the Internet “offer[s] a forum for a true diversity of political discourse, unique opportunities for cultural development, and myriad avenues for intellectual activity.”⁴² Recognizing the Internet’s dynamic potential, Congress set forth the federal policies of “promot[ing] the continued development of the Internet”⁴³ and of “encourag[ing] the development of technologies [that] maximize user control over what information is received by individuals . . . who use the Internet”⁴⁴ as part of the Telecommunications Act of 1996.⁴⁵

³⁶ See Letter from Kris A. Monteith, Chief, Enforcement Bureau, to Mary McManus, Senior Director of FCC and Regulatory Policy, Comcast Corporation, File No. EB-08-IH-1518 (Jan. 11, 2008).

³⁷ See Comcast Response Letter.

³⁸ Free Press Petition at i.

³⁹ Vuze Petition at ii.

⁴⁰ *Broadband Industry Practices*, WC Docket No. 07-52, Comment Sought on Petition for Declaratory Ruling Regarding Internet Management Policies, Public Notice, 23 FCC Rcd 340 (WCB 2008); *Broadband Industry Practices*, WC Docket No. 07-52, Comment Sought on Petition for Rulemaking to Establish Rules Governing Network Management Practices by Broadband Network Operators, 23 FCC Rcd 343 (WCB 2008). A list of commenters to the *Free Press Petition* is attached as an Appendix. Because the questions addressed in the Free Press Complaint and in the Free Press Petition are substantially similar and because Free Press and Comcast have used WC Docket No. 07-52 as the vehicle for filings related to both the Complaint and the Petition, we address both here and consolidate the records of the two proceedings. We also note that the Free Press Petition could be considered in part an informal complaint pertaining to Comcast’s conduct. See, e.g., Free Press Petition at 7–14.

⁴¹ 47 U.S.C. § 230(a)(2).

⁴² 47 U.S.C. § 230(a)(4).

⁴³ 47 U.S.C. § 230(b)(1).

⁴⁴ 47 U.S.C. § 230(b)(3).

⁴⁵ See *Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, WC Docket No. 03-211, Memorandum Opinion and Order, 19 FCC Rcd 22404, 22426, para. 35 (2004) (*Vonage Order*) (“While we acknowledge that the title of section 230 refers to ‘offensive material,’ the general policy statements regarding the Internet and interactive computer services contained in the section are not similarly confined to offensive material.”).

13. In the *Internet Policy Statement*,⁴⁶ the Commission recognized its responsibility for overseeing and enforcing the “national Internet policy” Congress had established in section 230(b) of the Communications Act of 1934, as amended (the Act).⁴⁷ Noting that the essence of the federal policy is to “encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet,”⁴⁸ the Commission clarified the contours of this policy. Most relevant here, the Commission instructed providers of broadband Internet access services that “consumers are entitled to run applications and use services of their choice” and “to access the lawful Internet content of their choice,”⁴⁹ subject to “reasonable network management” practices.⁵⁰ We stated our understanding of our “duty to preserve and promote the vibrant and open character of the Internet as the telecommunications marketplace enters the broadband age.”⁵¹ Thus, the Commission committed to incorporating the principles set forth in the *Internet Policy Statement* “into its ongoing policymaking activities.”⁵² The same day that the Commission adopted the *Internet Policy Statement*, it also adopted the *Wireline Broadband Order* “establishing a new regulatory framework for broadband Internet access services offered by wireline facilities-based providers.”⁵³ In the *Wireline Broadband Order*, the Commission reiterated its commitment to safeguarding the principles set forth in the *Internet Policy Statement*. We specifically warned that “[s]hould we see evidence that providers of telecommunications for Internet access or IP-enabled services are violating these principles, we will not hesitate to take action to address that conduct.”⁵⁴

14. Comcast now resists the Commission’s statutory authority to vindicate these federal policies. At the outset, we note that any assertion the Commission lacks the requisite statutory authority over providers of Internet broadband access services, such as Comcast, has been flatly rejected by the U.S. Supreme Court. In *Brand X*, while parties contended that affirming the Commission’s classification of cable modem service would render the Commission powerless to safeguard consumer interests,⁵⁵ the

⁴⁶ 20 FCC Rcd 14986.

⁴⁷ *Id.* at 14987, paras. 2–3. See also *National Cable & Telecomms. Ass’n v. Brand X Internet Services*, 545 U.S. 967, 996 (2005) (“[T]he Commission remains free to impose special regulatory duties on facilities-based ISPs under its Title I ancillary jurisdiction.”); *Broadband Industry Practices Notice*, 22 FCC Rcd at 7896, para. 4 (“The Commission, under Title I of the Communications Act, has the ability to adopt and enforce the net neutrality principles it announced in the *Internet Policy Statement*.”).

⁴⁸ *Internet Policy Statement*, 20 FCC Rcd at 14988, para. 4 (emphasis omitted).

⁴⁹ *Id.*

⁵⁰ *Id.* at 14988, n.15.

⁵¹ *Id.* at 14988, para. 5.

⁵² *Id.*

⁵³ *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities; Universal Service Obligations of Broadband Providers; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; 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; Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. § 160(c) with regard to Broadband Services Provided via Fiber to the Premises; Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided via Fiber to the Premises; Consumer Protection in the Broadband Era*, WC Docket No. 04-242, 05-271, CC Docket Nos. 95-20, 98-10, 01-337, 02-33, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, 14853, para. 1 (2005) (*Wireline Broadband Order*), petitions for review denied, *Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007).

⁵⁴ *Id.* at 14907, para. 96.

⁵⁵ See Brief for the Respondents States and Consumer Groups in Opposition to Petitioners at 36, 38–39, *Brand X*, 545 U.S. 967 (2005) (Nos. 04-277, 04-281); Brief of the National Association Of Regulatory Utility Commissioners

Court specifically stated that “the Commission has jurisdiction to impose additional regulatory obligations [on information service providers] under its Title I ancillary jurisdiction to regulate interstate and foreign communications, *see* §§ [47 U.S.C.] 151–161,”⁵⁶ and that “the Commission remains free to impose special regulatory duties on facilities-based ISPs under its Title I ancillary jurisdiction.”⁵⁷

15. Comcast nevertheless argues that the Commission cannot exercise jurisdiction over its interference with peer-to-peer TCP connections (the subject of the pending complaint) because such authority must be “‘ancillary’ to something, but here it is not clear what that something might be.”⁵⁸ As Comcast recognizes (albeit implicitly), the Act gives the Commission “broad authority”⁵⁹ under its ancillary authority to regulate interstate and foreign communications “even where the Act does *not* ‘apply.’”⁶⁰ Yet as muddy as the legal waters may seem to Comcast, we think our ancillary authority to enforce federal policy is quite clear. Peer-to-peer TCP connections provided through Comcast’s broadband Internet access service are undoubtedly a form of “communication by wire,”⁶¹ so the subject matter at issue here clearly falls within the Commission’s general jurisdictional grant under Title I. And though our exercise of authority must be “reasonably ancillary to the effective performance”⁶² of the Commission’s responsibility for “something,”⁶³ first and foremost, the “something” Comcast is looking for is right in the Act itself — it is the national Internet policy enshrined in section 230(b) of the Act.⁶⁴ When Congress drafted a national Internet policy in 1996, it did not do so on an empty tablet. Instead, Congress inscribed these policies into section 230 of the Communications Act⁶⁵ — the very same Act that established this Commission as the federal agency entrusted with “regulating interstate and foreign commerce in communication by wire.”⁶⁶ As Congress was no doubt aware, section 1 of the Act requires

as Amicus Curiae Supporting Respondents and Affirmance of the Decision Below at 9, *Brand X*, 545 U.S. 967 (2005) (Nos. 04-277, 04-281).

⁵⁶ 545 U.S. at 976.

⁵⁷ *Id.* at 996.

⁵⁸ Comcast Comments at 53; *see also* Comcast Response Letter at 13–15; Time Warner Reply Comments at 15 (“[T]he Commission’s authority to regulate broadband providers’ network management practices is uncertain as a general matter.”).

⁵⁹ *United States v. Southwestern Cable Co.*, 392 U.S. 157, 172 (1968) (*Southwestern Cable Co.*).

⁶⁰ *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 380 (1999).

⁶¹ 47 U.S.C. § 152(a).

⁶² *Southwestern Cable Co.*, 392 U.S. at 178.

⁶³ *See Midwest Video Corp. v. FCC*, 571 F.2d 1025, 1040 (8th Cir. 1978) (“To be ‘reasonably ancillary,’ the Commission’s rules must be reasonably ancillary to something.”), *aff’d*, *FCC v. Midwest Video Corp.*, 440 U.S. 689, 696 (1979) (*Midwest Video II*).

⁶⁴ 47 U.S.C. § 230(b). The requirements that a subject falls with the Commission’s general jurisdictional grant under Title I and that the regulations are reasonably ancillary to the effective performance of one of the Commission’s statutory responsibilities have been a solid foundation for the Commission’s ancillary authority for forty years. *See Southwestern Cable Co.*, 392 U.S. at 178; *American Library Ass’n v. FCC*, 406 F.3d 689, 691–92 (D.C. Cir. 2005).

⁶⁵ *See* Telecommunications Act of 1996, Pub. L. 104-104, § 509, 110 Stat. 56, 137 (1996) (“Title II of the Communications Act of 1934 (47 U.S.C. 201 *et seq.*) is amended by adding at the end the following new section . . .”).

⁶⁶ 47 U.S.C. § 151; *Midwest Video II*, 440 U.S. at 696 (“The Commission derives its regulatory authority from the Communications Act of 1934.”); *Southwestern Cable Co.*, 392 U.S. at 168 (“[The Commission is the] single Government agency with unified jurisdiction and regulatory power over all forms of electrical communication.” (internal quotation marks omitted)).

the Commission to “execute and enforce the provisions of [the] Act.”⁶⁷ To carry out this responsibility, section 4(i) empowers the Commission to “issue such orders . . . as may be necessary in the execution of its functions.”⁶⁸ Given section 230’s placement within the Act, we think that the Commission’s ancillary authority to take appropriate action to further the policies set forth in section 230(b) is clear.⁶⁹

16. Aside from section 230, we also find that exercising jurisdiction over the complaint is reasonably ancillary to our authority under six other separate statutory provisions: Section 1 of the Communications Act,⁷⁰ section 201 of the Act,⁷¹ section 706 of the Telecommunications Act of 1996,⁷² section 256 of the Act,⁷³ section 257 of the Act, and section 601(4) of the Act.⁷⁴ Section 1 of the Act directs the Commission “to make available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges.”⁷⁵ We conclude that acting on the complaint is reasonably ancillary to this delegation of authority in several ways.⁷⁶ First, prohibiting unreasonable network discrimination

⁶⁷ *Id.* (The Commission “shall” perform these functions.); 47 U.S.C. § 152(a) (“The provisions of this act shall apply to all interstate and foreign communications by wire or radio . . .”).

⁶⁸ 47 U.S.C. § 154(i); *see also* 47 U.S.C. § 303(r) (authorizing the Commission “from time to time, as public convenience, interest, or necessity requires . . . [to] prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this Act.”); *cf. Southwestern Cable Co.*, 392 U.S. at 182 (White, J., concurring in the result) (“[T]he Commission is authorized to regulate wire communications to implement the ends of §§ 301 and 303 . . .” (emphasis added)).

⁶⁹ We reject Comcast’s argument that “Congress chose a specific tool for implementing” the policy set forth in section 230(b)(3) — “civil immunity from damages for service providers and users that restrict access to certain content, in this case objectionable material” — and that the alleged choice of that tool somehow restricts the Commission’s authority to act here. Letter from Kathryn A. Zachem, Vice President of Regulatory Affairs, Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, Attach. at 35 (July 10, 2008) (Comcast *Ex Parte*) (citing 47 U.S.C. § 230(c)). Section 230(b) sets out the “policy of the United States” rather than the purpose of a particular section, *see, e.g.*, 47 U.S.C. § 628(a), suggesting that the policies of section 230(b) go beyond the procedures detailed in sections 230(c)–(d). Indeed, we have twice before specifically relied on this authority to strike state regulations that conflict with federal policy, *see Vonage Order*, 19 FCC Rcd at 22426, para. 35 (“In the case of section 230, Congress articulated a very broad policy regarding the ‘Internet and other interactive computer service’ without limitation to content-based services. Through codifying its Internet policy in the Commission’s organic statute, Congress charged the Commission with the ongoing responsibility to advance that policy consistent with our other statutory obligations”); *Petition for Declaratory Ruling that Pulver.com’s Free World Dialup is Neither Telecommunications nor a Telecommunications Service*, WC Docket No. 03-45, Memorandum Order and Opinion, 19 FCC Rcd 3307, 3318–19, para. 18 (2004). Furthermore, Comcast’s assertion that the statute, read as a whole, is designed to maximize the ability of “network operators to employ mechanisms to restrict access to . . . certain content,” Comcast *Ex Parte* at 35, falls wide of the mark given the statute’s emphasis on “maximiz[ing] user control” and “empower[ing]” parents. 47 U.S.C. § 230(b)(3)–(4). Indeed, Comcast’s argument is particularly inapt in a case, such as this, in which the network operator impedes customers’ access to content without even informing those customers of its practices.

⁷⁰ 47 U.S.C. § 151.

⁷¹ 47 U.S.C. § 201.

⁷² 47 U.S.C. § 157 nt.

⁷³ 47 U.S.C. § 256.

⁷⁴ 47 U.S.C. § 601.

⁷⁵ 47 U.S.C. § 151.

⁷⁶ Despite Comcast’s argument that the Commission’s authority must be ancillary to a “specified statutorily mandated responsibility,” Comcast *Ex Parte* at 28, and that section 1 imposes no such responsibility on the Commission, *id.* at 29–30, the Commission has previously relied on section 1 as the “something” to which our ancillary authority must be ancillary. Perhaps more to the point, the D.C. Circuit also disagrees with Comcast. That

directly furthers the goal of making broadband Internet access service both “rapid” and “efficient.” The practice of inhibiting consumer access to certain content and applications has the obvious effect of making the service slower even when doing so would not necessarily ease network congestion.⁷⁷ Such practices also could make both the specific service, and Internet communications as a whole, less efficient. For example, to the extent that Comcast is using TCP reset packets in a different manner than they were intended to be used, and service providers respond by modifying their services to circumvent Comcast’s efforts, that could undermine the usefulness and reliability of reset packets in general, and hinder the efficiency of the network.⁷⁸ Finally, we find that exercising jurisdiction over the complaint would promote the goal of achieving “reasonable charges.” For example, if cable companies such as Comcast are barred from inhibiting consumer access to high-definition on-line video content, then, as discussed above, consumers with cable modem service will have available a source of video programming (much of it free) that could rapidly become an alternative to cable television. The competition provided by this alternative should result in downward pressure on cable television prices, which have increased rapidly in recent years.

17. Additionally, we find that exercising authority over the complaint is reasonably ancillary to our authority under section 201 of the Act. That section provides that “[a]ll charges, practices, classifications, and regulations for and in connection with [common carrier] service, shall be just and reasonable, and any such charge, practice, classification, or regulation that is unjust or unreasonable is hereby declared to be unlawful.”⁷⁹ Exercising jurisdiction over the complaint is reasonably ancillary to our section 201 authority in several ways. When Comcast interferes with its users’ ability to upload content, the computer attempting to download that content will look for another source. In some cases, that other source will be a computer connected to a common carrier’s network, such as a computer of a DSL customer. The DSL provider may be offering the broadband service itself as a common carrier

court has noted that “[o]ne of [the Commission’s] responsibilities is to assure a nationwide system of wire communications services at reasonable prices,” *Computer & Communications Industry Ass’n v. FCC*, 693 F.2d 198, 212–13 (D.C. Cir. 1982) (emphasis added), and that circuit and others have consequently upheld actions premised on our section 1 ancillary authority. *See id.*; *Rural Tel. Coal. v. FCC*, 838 F.2d 1307, 1315 (D.C. Cir. 1988) (holding that the Commission acted reasonably when it adopted a universal service funding mechanism pursuant to its authority under section 1); *GTE Serv. Corp. v. FCC*, 474 F.2d 724, 730–31 (2d Cir. 1973) (upholding Commission’s section 1 authority, and noting that the “courts . . . have uniformly and consistently interpreted the Act to give the Commission broad and comprehensive rule-making authority in the new and dynamic field of electronic communication”); *Gen. Tel. Co. of the Southwest v. United States*, 449 F.2d 846, 854–55 (5th Cir. 1971) (upholding regulation of cable ownership based on the Commission’s “overriding responsibility” to carry out section 1’s goals); *see also IP-Enabled Services, E911 Requirements for IP-Enabled Service Providers*, WC Docket Nos. 04-36, 05-196, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245, 10262–63, para. 29 (2005) (*VoIP E911 Order*) (finding that Title I satisfies both prongs of the standard for asserting ancillary jurisdiction, in this case to impose 911 obligations on providers of interconnected VoIP service).

Contrary to Comcast’s suggestion, the Supreme Court has never rejected section 1 as a basis for our ancillary jurisdiction — at issue in *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979), was a regulation that the Commission had promulgated as ancillary to its broadcasting responsibilities (Title III), and the Court struck down that regulation because it effectively imposed a common carrier regime on cable systems, which Congress had “outright reject[ed]” in other statutory provisions, *id.* at 708–09. Comcast’s reliance on other cases for the same point is similarly flawed. *See Motion Picture Ass’n of Am. v. FCC*, 309 F.3d 796, 804–05 (D.C. Cir. 2002) (holding that section 1 does not encompass regulation of program content); *Am. Library Ass’n*, 406 F.3d at 700 (holding that ancillary authority “does not encompass the regulation of consumer electronics products . . . when those devices are not engaged in the process of radio or wire transmission”).

⁷⁷ *See infra* para. 48.

⁷⁸ *See* Testimony of David Reed, Adj. Professor, Massachusetts Institute of Technology, Broadband Network Management Practices En Banc Public Hearing, at 2 (Feb. 25, 2008) (Reed Testimony) (noting that the Internet’s “congestion control techniques can only work well if they are standardized across the entire Internet.”).

⁷⁹ 47 U.S.C. § 201(a).

service, in addition to offering other services as common carrier services.⁸⁰ In that circumstance, Comcast's actions impose costs on the DSL provider by burdening its network with traffic it otherwise would not have carried. Depending on the amount of traffic that is shifted in this way, the DSL provider may need to purchase or build additional capacity, incurring additional costs. Thus, Comcast's actions would have implications for the DSL provider's charges and the arrangements it must make pursuant to section 201. In addition, the terms of the agreement pursuant to which the DSL provider exchanges traffic could call for increased payments by the DSL provider for the increase in traffic its users are generating — an increase caused by Comcast. Consequently, Comcast may be able to lower its own costs by diverting this traffic, and thereby potentially lower the costs of its retail broadband Internet access service, while increasing the costs of its Title II-regulated competitors with whom it interconnects. In short, the company's conduct, which shifts the costs and burdens of carrying traffic away from Comcast and onto Title II carriers, is a practice that directly impacts Title II carriers and thus implicates our section 201 authority.

18. We also find that exercising authority over the complaint is reasonably ancillary to our authority under section 706 of the Telecommunications Act.⁸¹ That section provides that the “Commission shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans.”⁸² For purposes of this section, Congress defined “advanced telecommunications capability” as “high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology” and “without regard to any transmission media or technology.”⁸³ Exercising jurisdiction over the complaint is reasonably ancillary to our section 706 authority in several ways. First, the practice of degrading consumer ability to share or access video content effectively results in the limiting of “deployment” of an “advanced telecommunications capability,” *i.e.*, the ability “to originate and receive high-quality . . . video telecommunications using any

⁸⁰ In the *Wireline Broadband Order*, the Commission permitted certain facilities-based carriers to choose whether to offer the transmission portion of wireline broadband Internet access service as non-common carriage or common carriage. 20 FCC Rcd at 14902, para. 94; *Petition of ACS of Anchorage, Inc. Pursuant to Section 10 of the Communications Act of 1934, as Amended (47 USC Section 160(c)), for Forbearance from Certain Dominant Carrier Regulation of Its Interstate Access Services, and for Forbearance from Title II Regulation of its Broadband Services, in the Anchorage, Alaska, Incumbent Local Exchange Carrier Study Area*, WC Docket No. 06-109, Memorandum Opinion and Order, 22 FCC Rcd 16304, 16339–40, paras. 75, 80 (2007).

⁸¹ Comcast notes that the Commission has not interpreted section 706 to constitute an independent grant of authority. See Comcast *Ex Parte* at 31 (citing, *inter alia*, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*; *Petition of Bell Atlantic Corporation for Relief from Barriers to Deployment of Advanced Telecommunications Services*; *Petition of U.S. West Communications, Inc. for Relief from Barriers to Deployment of Advanced Telecommunications Services*; *Petition of Ameritech Corporation to Remove Barriers to Investment in Advanced Telecommunications Technology*; *Petition of the Alliance for Public Technology Requesting Issuance of Notice of Inquiry and Notice of Proposed Rulemaking to Implement Section 706 of the 1996 Telecommunications Act*; *Petition of the Association for Local Telecommunications Services (ALTS) for a Declaratory Ruling Establishing Conditions Necessary to Promote Deployment of Advanced Telecommunications Capability under Section 706 of the Telecommunications Act of 1996*; *Southwestern Bell Telephone Company, Pacific Bell, and Nevada Bell Petition for Relief from Regulation Pursuant to Section 706 of the Telecommunications Act of 1996 and 47 U.S.C. § 160 for ADSL Infrastructure and Service*, CC Docket Nos. 98-147, 98-11, 98-26, 98-32, 98-15, 98-78, 98-91, RM 9244, Memorandum Opinion and Order, and Notice of Proposed Rulemaking, 13 FCC Rcd 24012, 24047–48, para. 77 (1998)). Although this is accurate, section 706 does impose a responsibility on the Commission to “encourage the deployment . . . of advanced telecommunications capability,” 47 U.S.C. § 157 nt, and the Commission may use its ancillary authority to execute that responsibility and promote that objective. See *infra* para. 22.

⁸² 47 U.S.C. § 157 nt.

⁸³ *Id.*

technology.”⁸⁴ Second, we predict that prohibiting network operators from blocking or degrading consumer access to desirable content and applications on-line will result in increased consumer demand for high-speed Internet access and, therefore, increased deployment to meet that demand. In particular, we agree with Free Press that the unimpeded availability of high-definition content on-line will lead to increased adoption of broadband Internet access, as well as consumer demand for network upgrades that would result in higher speeds that would allow such content to be accessed more quickly.⁸⁵ Similarly, ensuring that consumers have unimpeded access to such content and applications will promote the availability of such content and applications. Put another way, the expenditure of both creative and financial capital on such content and applications is much less likely if large numbers of Internet users will be unable to access them in an unfettered manner.

19. We also find that exercising authority over the complaint is reasonably ancillary to our authority under section 256 of the Act.⁸⁶ That provision’s purposes are “to promote nondiscriminatory accessibility by the broadest number of users and vendors of communications products and services to public telecommunications networks used to provide telecommunications services” and “to ensure the ability of users and information providers to seamlessly and transparently transmit and receive information between and across telecommunications networks.”⁸⁷ To achieve these goals, section 256 directs the Commission, among other things, to “establish procedures for Commission oversight of coordinated network planning by telecommunications carriers and other providers of telecommunications service for the effective and efficient interconnection of public telecommunications networks used to provide telecommunications services.”⁸⁸ The provision also authorizes the Commission to participate in the development of “public telecommunications network interconnectivity standards that promote access to” networks and services, including “information services by subscribers of rural telephone companies.”⁸⁹ We have previously noted that section 256 “affords the Commission adequate authority to continue overseeing broadband interconnectivity and reliability issues” and does so regardless of the “legal classification” of the broadband Internet access service at issue.⁹⁰ Even assuming that Comcast’s cable plant-based Internet access network is not, when viewed in isolation, a “public telecommunications network,” it clearly interconnects with such networks. For example, a Comcast customer who subscribes to a voice over Internet Protocol (VoIP) service may utilize that service to call a customer using a traditional land-line telephone connected to the public switched telephone network. Comcast customers can also share content with customers of local exchange carriers, whose networks are used to provide telecommunications services (in addition to information services) and are thus “public telecommunications networks.” Moreover, as described above, Comcast’s network management practices have the effect of shifting traffic to other carriers’ telecommunications networks. It is therefore a reasonable exercise of the Commission’s authority ancillary to section 256 to promote the ability of Comcast customers and customers of other networks, including public telecommunications networks, to share content and applications with each other, without facing operator-erected barriers, *i.e.*, to “seamlessly and transparently transmit and receive information,”⁹¹ and without allowing Comcast to shift costs and burdens to those networks.

⁸⁴ *Id.*

⁸⁵ Letter from Marvin Ammori, General Counsel, Free Press, to Marlene H. Dortch, Secretary, FCC, Attach. 1 at 22 (June 12, 2008) (Free Press *Ex Parte*).

⁸⁶ 47 U.S.C. § 256.

⁸⁷ 47 U.S.C. § 256(a).

⁸⁸ 47 U.S.C. § 256(b)(1).

⁸⁹ 47 U.S.C. § 256(b)(2).

⁹⁰ *Wireline Broadband Order*, 20 FCC Rcd at 14919, para. 120.

⁹¹ 47 U.S.C. § 256(a)(2).

20. In addition, exercising authority over the complaint is reasonably ancillary to the Commission's responsibilities under section 257 of the Act. Section 257 mandates that the Commission conduct an ongoing review to identify and eliminate "market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services, or in the provision of parts or services to providers of telecommunications services and information services."⁹² The underlying purposes of Section 257 are "to promote the policies and purposes of this [Communications] Act favoring a diversity of media voices, vigorous economic competition, technological advancement, and promotion of the public interest, convenience, and necessity."⁹³ Historically, "the innovation and explosive growth of the Internet [has been] directly linked to its particular architectural design."⁹⁴ Thus, "variances from those standard protocols and practices damages the Internet as a whole,"⁹⁵ including the ability of entrepreneurs to enter the market with new Internet services. Contravention of these standard protocols and practices through discriminatory conduct thus erects barriers to entry that would not otherwise exist. Entrepreneurs are no longer able to design new services and technologies around known protocols and standards, but must spend considerable time and resources in an effort to accommodate Comcast's particular network management practices — a task made all the more difficult by the company's obfuscation regarding its actual practices.⁹⁶ By exercising authority over this complaint, we are able to ensure that Comcast's actions do not inappropriately hinder entry by "entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services." In addition, by facilitating such entry, we also promote the Act's policies favoring "a diversity of media voices" and "technological advancement."

21. Our decision to exercise ancillary authority in this manner is also appropriate to advance the policy set forth in section 601 of the Act to "assure that cable communications provide and are

⁹² 47 U.S.C. §§ 257(a), (c).

⁹³ 47 U.S.C. § 257(b).

⁹⁴ Testimony of Lawrence Lessig, C. Wendell and Edith M. Carlsmith Professor of Law, Stanford Law School, Senate Committee on Commerce, Science and Transportation Hearing on "Network Neutrality," at 1 (Feb. 7, 2006); *see also, e.g., id.* at 4 ("[I]f you consider some of the most important innovations in this history of the Internet — from the development of the World Wide Web by a Swiss researcher at CERN, to the first peer-to-peer instant messaging chat service, ICQ, developed by a young Israeli, to the first web based (or HTML-based) email, HoTMaiL, developed by an Indian immigrant — these are all innovations by kids or non-Americans: outsiders to the network owners. This diversity of innovators is no accident. By minimizing the control by the network itself, the 'end-to-end' design maximizes the range of competitors who can innovate for the network. Rather than concentrating the right to innovate in a few network owners, the right to innovate is open to anyone, anywhere. That architecture, in turn, has created an astonishing range of important and economically valuable innovation. Here, as in many other contexts, competition has produced growth. And that competition was assured by the network's design."); Testimony of Vinton G. Cerf, Vice President and Chief Internet Evangelist, Google, Inc., Senate Committee on Commerce, Science, and Transportation Hearing on "Network Neutrality," at 2 (Feb. 7, 2006) ("The Internet's open, neutral architecture has proven to be an enormous engine for market innovation, economic growth, social discourse, and the free flow of ideas. The remarkable success of the Internet can be traced to a few simple network principles — end-to-end design, layered architecture, and open standards — which together give consumers choice and control over their online activities."); Testimony of Lawrence Lessig, C. Wendell and Edith M. Carlsmith Professor of Law, Stanford Law School, Senate Committee on Commerce, Science and Transportation Hearing on "The Future of the Internet," at 3 (Apr. 22, 2008) ("The original Internet achieved this architecture of competition unintentionally. The framers of the network's original design were not economists. They were not focused on building an engine of economic growth. Yet that was the consequence of a technical design intended to facilitate development flexibility. A network designed to enable anyone to develop new applications to run was also a network designed to maximize competition among applications and content.").

⁹⁵ Reed Testimony at 1–3.

⁹⁶ *See, e.g.,* Vuze Petition at 11; Vuze Reply Comments at 7–8; EFF Reply Comments at 5–6.

encouraged to provide the widest possible diversity of information sources and services to the public.”⁹⁷ As Free Press correctly observes,⁹⁸ this directive is not limited to “cable services” as defined by section 602,⁹⁹ but applies more broadly to “cable communications.” Indeed, in amending Title VI, Congress recognized the “substantial governmental and First Amendment interest in promoting a diversity of views provided through *multiple technology media*.”¹⁰⁰ We thus interpret “cable communications” in this instance to include those communications, such as peer-to-peer transfers, facilitated by broadband Internet access service provided by cable operators such as Comcast.¹⁰¹ To the extent that our adjudicatory action promotes a diversity of information sources for Comcast’s end users by enabling them to access more easily a wider variety of content than Comcast previously allowed, this core purpose of Title VI of the Act is satisfied by our assertion of authority in this area.

22. Although Comcast complains that it is insufficient for the Commission’s exercise of its authority to be reasonably ancillary to a statutory policy or objective, the U.S. Supreme Court has held otherwise. In *United States v. Midwest Video Corp.*,¹⁰² a regulated party advanced a similar argument to Comcast’s. “Respondent . . . contends . . . §§ 1 and 303(g) [of the Act] merely state objectives without granting power for their implementation.”¹⁰³ The Court, however, held that the exercise of authority in that case was “founded on those provisions for the policies they state, and not for any regulatory power they might confer.” Rather, the Court explained that “[t]he regulatory power itself may be found . . . in 47 U.S.C. §§ 152(a), 303(r).”¹⁰⁴ So too here. Likewise, the U.S. Court of Appeals for the District of Columbia Circuit upheld, in *Computer & Communications Industry Ass’n v. FCC*,¹⁰⁵ the Commission’s regulation of wire communications solely in order to further the Title I goal of “assur[ing] a nationwide system of wire communications services at reasonable prices.”¹⁰⁶

23. One peculiarity with Comcast’s jurisdictional argument is that even many of Comcast’s allies admit Commission authority here. Hands Off the Internet, for example, vigorously opposes any rulemaking regarding network management practices,¹⁰⁷ but admits that “[i]t goes without saying that the [Commission] may take whatever action it deems necessary to ensure” that “network broadband operators

⁹⁷ 47 U.S.C. § 521(4).

⁹⁸ See Free Press *Ex Parte* at 31.

⁹⁹ See 47 U.S.C. § 522(6) (defining “cable service” as “(A) the one-way transmission to subscribers of (i) video programming, or (ii) other programming service, and (B) subscriber interaction, if any, which is required for the selection of use of such video programming or other programming service”).

¹⁰⁰ Cable Television Consumer Protection and Competition Act of 1992, Pub. L. 102-385, § 2(a)(6), 106 Stat. 1460, 1461 (Oct. 5, 1992), *codified at* 47 U.S.C. § 521 nt (emphasis added).

¹⁰¹ See also *Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, GN Docket No. 00-185, CS Docket No. 02-52, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, 4855, para. 115 (2002) (*Cable Modem Declaratory Ruling*) (citing, *inter alia*, 47 U.S.C. § 521 as part of the legal basis for determination that cable modem service was properly classified as an “interstate information service,” rather than a “cable service”); *id.* at 4860, para. 133 (same).

¹⁰² 406 U.S. 649 (1972).

¹⁰³ *Id.* at 669 n.28.

¹⁰⁴ *Id.*

¹⁰⁵ 693 F.2d 198 (D.C. Cir. 1982).

¹⁰⁶ *Id.* at 213; see also *Rural Tel. Coal.*, 838 F.2d at 1315.

¹⁰⁷ Hands Off the Internet Comments at 7–14.

act consistently with the Commission's four [*Internet Policy Statement*] principles."¹⁰⁸ Indeed, Comcast *itself* admitted Commission jurisdiction over its network management practices in litigation before the U.S. District Court for the Northern District of California. There Comcast urged the court to hold litigation in abeyance because "[a]ny inquiry into whether Comcast's P2P management is unlawful falls squarely within the FCC's subject matter jurisdiction."¹⁰⁹ And following Comcast's lead, the court granted Comcast's request for a stay, finding that "the reasonableness of a broadband provider's network management practices . . . has, however, been firmly placed within the jurisdiction of the Federal Communications Commission . . . , an administrative agency whose authority to regulate internet broadband access companies' services is well-established."¹¹⁰ The courts of equity have long frowned on a party making representations to one tribunal, benefiting from those representations, and then turning around to assert precisely the opposite claims to a second tribunal.¹¹¹ We are similarly disturbed at Comcast's conduct here and find it all the more reason to dismiss Comcast's jurisdictional challenge as meritless.

24. Comcast makes one last point about our authority to enforce federal policy that turns us to a third federal policy inscribed in the Act: The policy "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive services, unfettered by Federal or State regulation."¹¹² According to Comcast, this policy shows "the clear intent of Congress that the Internet not be regulated" and that the Commission has no legal authority to adjudicate the present dispute.¹¹³ Comcast places too much weight on the last few words of this federal policy, and we reject Comcast's construction of this language.

25. *First*, the policy embodied in this provision cannot reasonably be read to prevent *any* governmental oversight of providers of broadband Internet access services. As an historical matter, when this language was enacted, the "market that presently exist[ed] for the Internet and other interactive services" substantially consisted of dial-up Internet access service, provided over telephone networks. The Commission applied extensive common carrier regulation to the underlying telecommunications services. In addition, at that time facilities-based carriers were subject to regulation with respect to their enhanced services offering pursuant to the *Computer Inquiries* decisions.¹¹⁴ It is inconceivable that

¹⁰⁸ *Id.* at 3. Hands Off the Internet also refers to the "FCC's clear ability to regulate these issues within its existing authority under Title I of the Communications Act." *Id.*

¹⁰⁹ Comcast Motion for Judgment at 10; Defendants' Reply Memorandum in Support of Motion for Judgment on the Pleadings at 3, *Hart v. Comcast of Alameda*, No. C-07-06350-PJH (N.D. Cal. May 28, 2008) (Comcast Reply Motion) ("[The] claims that Comcast's network management practices are 'unfair' or that they are 'unlawful' because they violate . . . the FCC's Internet Policy Statement . . . are squarely in the heartland of the FCC's primary jurisdiction.").

¹¹⁰ Order Granting Request to Stay at 2–3, *Hart v. Comcast of Alameda*, No. C-07-06350-PJH (N.D. Cal. June 25, 2008).

¹¹¹ *See, e.g., Zedner v. United States*, 547 U.S. 489, 504 (2006) ("[W]here a party assumes a certain position in a legal proceeding, and succeeds in maintaining that position, he may not thereafter, simply because his interests have changed, assume a contrary position." (quoting *Davis v. Wakelee*, 156 U.S. 680, 689 (1895))).

¹¹² 47 U.S.C. § 230(b)(2), *quoted in* Comcast Comments at 53 n.153, 54; *see also* Time Warner Comments at 26; Comcast Reply Comments at 42–43; Letter from David L. Cohen, Executive Vice President, Comcast, to Kevin J. Martin, Chairman, FCC, at 2 (Mar. 7, 2008) (Comcast Letter on Authority), *attached to* Letter from Kathryn A. Zachem, Vice President of Regulatory Affairs, Comcast, to Marlene H. Dortch, Secretary, FCC (Mar. 11, 2008).

¹¹³ Comcast Letter on Authority at 2; *see also* Katherine A. Zachem, Vice President of Federal Regulatory Affairs, Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, Attach. at 17 (Feb. 26, 2008) (Comcast Hearing Remarks) (terming this provision the government's "deregulatory policy for the Internet").

¹¹⁴ *See Amendment of Section 64.702 of the Commission's Rules and Regulations*, Docket No. 20828, Final Decision, 77 FCC 2d 384 (1980); *Amendment of Section 64.702 of the Commission's Rules and Regulations*, Docket No. 20828, Memorandum Opinion and Order, 84 FCC 2d 50 (1980); *Amendment of Section 64.702 of the*

Congress was unaware of or intended to eliminate this regulatory framework given its stated purpose of “preserv[ing] the vibrant and competitive free market.”¹¹⁵ Moreover, reading the provision to forbid any governmental oversight of providers of broadband Internet access services would conflict with numerous other policies in the Act. Look no further than section 230(d) of the Act, which requires providers of “interactive computer service” (including providers of “a service or system that provides access to the Internet”¹¹⁶) to “notify [a new] customer” that certain technologies for filtering Internet content are commercially available.¹¹⁷

26. *Second*, the Commission has previously rejected any reading of section 230(b)(2) that would place a flat-out ban on any government action that might affect the Internet and the market for broadband Internet access services. In the *VoIP Number Portability Order*,¹¹⁸ for example, the Commission noted that the “Act necessarily has many goals” and rejected a reading of section 230(b)(2)’s policy that would prevent the imposition of local number portability on interconnected VoIP service providers, reasoning that that section was not meant to displace the policy of “preserv[ing] an efficient numbering administration system that fosters competition among all communications services in a competitively neutral and fair manner.”¹¹⁹ Similarly, in the *VoIP CPNI Order*,¹²⁰ the Commission rejected a reading of section 230(b)(2) that would have prevented the extension of consumer privacy protections to interconnected VoIP services.¹²¹ And in the *VoIP 911 Order*,¹²² the Commission found that section 230(b)(2) was not a barrier to requiring interconnected VoIP providers to provide 911 service to their end users.¹²³

27. Finally, we note that any doubt regarding our jurisdiction to adjudicate the Free Press Complaint is laid to rest because Comcast has waived the argument. Two years ago, in a merger proceeding involving Comcast, Adelphia, and Time Warner Cable, the Commission examined Free Press’s allegations that the transaction would “likely result in anticompetitive conduct or interference with

Commission’s Rules and Regulations, Docket No. 20828, Memorandum Opinion and Order on Further Reconsideration, 88 FCC 2d 512 (1981) (collectively, *Computer II* rules); see generally *Computer & Commc’ns Indus. Ass’n*, 693 F.2d 198 (upholding *Computer II* rules); *Wireline Broadband Order*, 20 FCC Rcd at 14866–73, paras. 21–31.

¹¹⁵ 47 U.S.C. § 230(b)(2) (emphasis added).

¹¹⁶ 47 U.S.C. § 230(f)(2).

¹¹⁷ 47 U.S.C. § 230(d).

¹¹⁸ *Telephone Number Requirements for IP-Enabled Services Providers; Local Number Portability Porting Interval and Validation Requirements; IP-Enabled Services; Telephone Number Portability; CTIA Petitions for Declaratory Ruling on Wireline-Wireless Porting Issues; Numbering Resource Optimization*, WC Docket Nos. 07-243, 07-244, 04-36, CC Docket Nos. 95-116, 99-200, Report and Order, Declaratory Ruling, Order on Remand, and Notice of Proposed Rulemaking, 22 FCC Rcd 19531 (2007), *petition for review pending*.

¹¹⁹ *Id.* at 19548 n.101.

¹²⁰ *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers’ Use of Customer Proprietary Network Information and Other Customer Information; IP-Enabled Services*, CC Docket No. 96-115, WC Docket No. 04-36, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 6927 (2007).

¹²¹ *Id.* at 6957 n.188.

¹²² *VoIP E911 Order*, 20 FCC Rcd 10245.

¹²³ *Id.* at 10262, para. 29 n.95; see also *Universal Service Contribution Methodology et al.*, WC Docket Nos. 06-122, 04-36, CC Docket Nos. 96-45, 98-171, 90-571, 92-237, 99-200, 95-116, 98-170, NSD File No. L-00-72, Report and Order and Notice of Proposed Rulemaking, 21 FCC Rcd 7518, 7543 n.166 (2006) (rejecting a similar idea in imposing universal service contribution obligations on providers of interconnected VoIP), *pet. for review granted in part and order vacated in part on other grounds sub nom. Vonage Holdings Corp. v. FCC*, 489 F.3d 1232 (D.C. Cir. 2007).

subscriber access to Internet content or applications on the part of either Time Warner or Comcast.”¹²⁴ Although we did not find the evidence sufficient to warrant the strictures Free Press sought on the resulting companies, we nevertheless provided that “[i]f in the future evidence arises that any company is willfully blocking or degrading Internet content, affected parties may file a complaint with the Commission,”¹²⁵ and noted that Commission’s *Internet Policy Statement* “contains principles against which the conduct of Comcast[and] Time Warner . . . can be measured.”¹²⁶ Comcast did not petition the Commission to reconsider its ability to adjudicate such complaints, nor did it seek judicial review. Rather, it consummated the transaction as approved. As a result, the company is now barred from challenging our ability to adjudicate the complaint filed by Free Press, which is precisely the type of complaint discussed in the *Adelphia/Time Warner/Comcast Order*.¹²⁷ This conclusion is particularly apt given that Free Press was a party to that proceeding and relied on these assurances in deciding not to seek reconsideration or judicial review.¹²⁸ It would be entirely unfair for us to reverse course now in response to jurisdictional objections presented by another party to that proceeding, Comcast. Indeed, it would be akin to the famous example of Lucy pulling away the football just as Charlie Brown is about to kick it.

B. Our Approach to the Present Controversy

28. Congress has given federal agencies wide berth to determine how best to order their own proceedings,¹²⁹ and Congress has specifically given the Commission the authority to “conduct its proceedings in such manner as will best conduce to the proper dispatch of business and to the ends of justice.”¹³⁰ Moreover, the Supreme Court has held:

[P]roblems may arise in a case which the administrative agency could not reasonably foresee, problems which must be solved despite the absence of a relevant general rule.

¹²⁴ *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, Adelphia Communications Corporation, (and Subsidiaries, Debtors-In-Possession), Assignors and Transferors, to Comcast Corporation (Subsidiaries), Assignees and Transferees, Comcast Corporation, Transferor, to Time Warner Inc., Transferee, Time Warner Inc., Transferor, to Comcast Corporation, Transferee*, MB Docket No. 05-192, Memorandum Opinion and Order, 21 FCC Rcd 8203, 8298, para. 220 (2006) (*Adelphia/Time Warner/Comcast Order*). In that order, the Commission approved the acquisition of Adelphia cable systems by Comcast and Time Warner.

¹²⁵ *Id.* at 8298, para. 220.

¹²⁶ *Id.* at 8299, para. 223.

¹²⁷ *Cf.* 47 C.F.R. § 1.110.

¹²⁸ See Letter from Harold Feld, Media Access Project, to the Commission, at 9–10 (July 22, 2008) (Media Access Project serves as counsel for Free Press in this proceeding and served as counsel for Free Press in the Adelphia proceeding).

¹²⁹ See *SEC v. Chenery Corp. (Chenery II)*, 332 U.S. 194, 203 (1947); *Qwest Services Corp. v. FCC*, 509 F.3d 531, 536 (D.C. Cir. 2007) (“Most norms that emerge from a rulemaking are equally capable of emerging (legitimately) from an adjudication, *NLRB v. Bell Aerospace Co.*, 416 U.S. 267, 294–95 (1974), and accordingly agencies have ‘very broad discretion whether to proceed by way of adjudication or rulemaking,’ *Time Warner Entertainment Co. v. FCC*, 240 F.3d 1126, 1141 (D.C. Cir. 2001).”); *Am. Airlines, Inc. v. Dep’t of Transp.*, 202 F.3d 788, 797 (5th Cir. 2000) (“Agencies have discretion to choose between adjudication and rulemaking as a means of setting policy.”); *City of Chicago v. FCC*, 199 F.3d 424, 429 (7th Cir. 1999) (“An agency can, of course, promulgate its policy through individual adjudicative proceedings rather than rulemaking.”); *Am. Gas Ass’n v. FERC*, 912 F.2d 1496, 1519 (D. C. Cir. 1990) (“[A]gency discretion is at its peak in deciding such matters as whether to address an issue by rulemaking or adjudication.”); see also *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 524 (1978) (“[F]ormulation of procedures was basically to be left within the discretion of the agencies to which Congress had confided the responsibility for substantive judgments.”).

¹³⁰ 47 U.S.C. § 154(j).

Or the agency may not have had sufficient experience with a particular problem to warrant rigidifying its tentative judgment into a hard and fast rule. Or the problem may be so specialized and varying in nature as to be impossible of capture within the boundaries of a general rule. In those situations, the agency must retain power to deal with the problems on a case-to-case basis if the administrative process is to be effective. There is thus a very definite place for the case-by-case evolution of statutory standards. And the choice made between proceeding by general rule or by individual, *ad hoc* litigation is one that lies primarily in the informed discretion of the administrative agency.¹³¹

Given this broad authority, the Commission has often relied on adjudications rather than rulemakings to enunciate and enforce new federal policy. For example, the Commission first applied its 1965 policy on comparative broadcast hearings¹³² in an adjudication¹³³ — an action later upheld by the D.C. Circuit.¹³⁴ Similarly, the Commission adopted the widely respected *Carterfone* principles via adjudication¹³⁵ and decided to refine its 1974 policy on children’s programming through individual adjudications rather than through rules.¹³⁶

29. Turning to the case at hand, though we recognize that the “function of filling in the interstices of the Act should be performed, as much as possible, through th[e] quasi-legislative promulgation of rules,”¹³⁷ we instead choose to adjudicate disputes regarding federal Internet policy on a case-by-case basis.¹³⁸ Our reasons are threefold.

30. *First*, we proceed cautiously because the Internet is a new medium, and traffic management questions like the one presented here are relatively novel. In light of those circumstances, we decline to codify our “judgment into a hard and fast rule” at this time.¹³⁹ Twelve years ago when Congress passed the Telecommunications Act of 1996, the broadband industry was still in its infancy, and although the industry has begun to mature since then, much is still unsettled. For example, as late as 1998, some speculated that cable providers could never compete effectively with telecommunications carriers for the broadband Internet access service market,¹⁴⁰ but now cable providers serve the majority of broadband

¹³¹ *Chenery II*, 332 U.S. at 202–03 (citing *Columbia Broadcasting Sys., Inc. v. United States*, 316 U.S. 407, 421 (1942)).

¹³² See Policy Statement on Comparative Broadcast Hearings, 1 FCC 2d 393 (1965).

¹³³ *Applications of Lorain Community Broadcasting Co., Lorain, Ohio; Allied Broadcasting, Inc., Lorain, Ohio; Midwest Broadcasting Co., Lorain, Ohio for Construction Permits*, Docket No. 16876 File No. BP-16940; Docket No. 16877 File No. BP-17297; Docket No. 16878 File No. BP-17302, Order, 18 FCC 2d 686 (1969).

¹³⁴ *Allied Broadcasting, Inc., v. FCC*, 435 F.2d 68 (D.C. Cir. 1970).

¹³⁵ *Use of the Carterfone Device in Message Toll Telephone Service; Thomas F. Carter and Carter Electronics Corp., Dallas, Tex. (Complainants), v. American Telephone and Telegraph Co., Associated Bell System Companies, Southwestern Bell Telephone Co., and General Telephone Co. of the Southwest (Defendants)*, Docket Nos. 16942, 17073, Decision, 13 FCC 2d 420 (1968) (*Carterfone Order*).

¹³⁶ See *Petition of Action for Children’s Television (ACT) for Rulemaking Looking Toward the Elimination of Sponsorship and Commercial Content in Children’s Programming and the Establishment of a Weekly 14-Hour Quota of Children’s Television Programs*, Docket No. 19142, Children’s Television Report and Policy Statement, 50 FCC 2d 1 (1974), *petition for review denied in Action for Children’s Television v. FCC*, 564 F.2d 458 (D.C. Cir. 1977).

¹³⁷ *Chenery II*, 332 U.S. at 202; see also Comcast Comments at 44.

¹³⁸ It is our intent to adjudicate future complaints in this area with dispatch.

¹³⁹ *Chenery II*, 332 U.S. at 202.

¹⁴⁰ See Comcast Comments at 6 & nn.9–10.

users in the country.¹⁴¹ And while the packet-switched network of the Internet was once thought too unreliable for voice communications, the explosion of VoIP service in the last four years has put that myth to rest. We decline to adopt prophylactic rules at this time because confining our holdings to a particular set of facts should provide guidance to consumers and the industry without unduly tying our hands should the known facts change.

31. *Second*, not only is the Internet new and dynamic, but Internet access networks are complex and variegated. We thus think it possible that the network management practices of the various providers of broadband Internet access services are “so specialized and varying in nature as to be impossible to capture within the boundaries of a general rule.”¹⁴² Comcast, for example, has not been fully forthcoming about its own practices in the present proceeding, and its fellow providers have also been cryptic as to their practices. More to the point, the majority of broadband Internet access services are offered not on a uniform configuration of fiber circuits but on legacy telephone and cable systems, upgraded for purposes of providing broadband, while others are provided over wireless connections or the electrical grid. This is not to say that general rules could not apply to all such systems, but only that, given the present record, we are not certain that a one-size-fits-all approach is good policy.¹⁴³

32. *Third*, we think a case-by-case, adjudicatory approach comports with congressional directives and Commission precedents. As discussed above,¹⁴⁴ federal policy advocates the preservation of the “vibrant and competitive free market” for Internet and interactive computer services,¹⁴⁵ and the Commission itself has recognized that “broadband services should exist in a minimal regulatory environment that promotes investment and innovation in a competitive market.”¹⁴⁶ Deciding to establish policy through adjudicating particular disputes rather than imposing broad, prophylactic rules comports with our policy of proceeding with restraint in this area at this time.¹⁴⁷

33. To be sure, Comcast correctly notes that the Commission’s discretion to proceed by adjudication “is not unbounded”¹⁴⁸ and that the Supreme Court has held that “there may be situations where [an agency’s] reliance on adjudication would amount to an abuse of discretion.”¹⁴⁹ Comcast then sets forth the following standard to evaluate whether our reliance on adjudication here would amount to such an abuse:

Courts have explained that “[s]uch a situation may present itself where the new standard, adopted by adjudication, departs radically from the agency’s previous interpretation of

¹⁴¹ See Industry Analysis and Technology Division, Wireline Competition Bureau, High-Speed Services for Internet Access: Status as of June 2007, Table 2 (Mar. 2008), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-280906A1.pdf (last visited July 31, 2008).

¹⁴² *Chenery II*, 332 U.S. at 203.

¹⁴³ For similar reasons, we also expect to refine further our adjudicative standards in future cases.

¹⁴⁴ See *supra* paras. 24–26.

¹⁴⁵ 47 U.S.C. § 230(b)(2).

¹⁴⁶ *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4802, para. 5.

¹⁴⁷ To the extent that Comcast still sees a conflict between our “numerous, consistent, and successful precedents regarding the reasons why ‘broadband services should exist in a minimal regulatory environment’” and any “exercise of Title I authority over network management practices,” Comcast Comments at 44, our reasoned explanation is this: Our adjudicatory approach allows us to minimize government intervention in the broadband market without wholly forsaking our responsibility to enforce the other federal policies of section 230(b) of the Act.

¹⁴⁸ Comcast *Ex Parte* at 13.

¹⁴⁹ *NLRB v. Bell Aerospace Co. Div. of Textron Inc.*, 416 U.S. 267, 294 (1974) (“[An agency’s] judgment that adjudication best serves [its] purpose is entitled to great weight.”).

the law, where the public has relied substantially and in good faith on the previous interpretation, where fines or damages are involved, *and* where the new standard is very broad and general in scope and prospective in application.”¹⁵⁰

34. The instant proceeding clearly does not fall within this “narrow class of cases.”¹⁵¹ Indeed, far from satisfying all four of the criteria defining this class, none of the criteria apply in this case. Most obviously, as explained below, we do not impose any fines or damages on Comcast here. In addition, our action today does not “depart[] radically from the agency’s previous interpretation of the law” nor does it involve a situation “where the public has relied substantially and in good faith on [a] previous interpretation.” When we established a more deregulatory framework for broadband Internet access services offered by wireline facilities-based providers, we made clear our commitment to take action to ensure compliance with the principles set forth in the *Internet Policy Statement*. “Should we see evidence that providers of telecommunications for Internet access or IP-enabled services are violating these principles, we will not hesitate to take action to address that conduct.”¹⁵² This statement was part-and-parcel of our deregulatory decision as it provided a backstop in the event that providers engaged in abusive conduct.

35. Indeed, the claim that the Commission has departed “radically” from prior law and that the company had relied “substantially and in good faith” on that prior law is especially not well-taken coming from Comcast.¹⁵³ As discussed above,¹⁵⁴ in a proceeding involving allegations that an acquisition of Adelphia’s cable systems by Comcast and Time Warner Cable would “likely result in anticompetitive conduct or interference with subscriber access to Internet content or applications on the part of either Time Warner or Comcast,” we specifically warned both companies that “[i]f in the future evidence arises that any company is willfully blocking or degrading Internet content, affected parties may file a complaint with the Commission.”¹⁵⁵ And although that statement alone was clear enough to provide Comcast with fair notice, the Commission even went further and specifically reminded the company that Commission’s *Internet Policy Statement* “contains principles against which the conduct of Comcast, Time Warner, and other broadband service providers can be measured.”¹⁵⁶ As a result, Comcast’s complaint here that it has not been afforded fair notice and due process is quite remarkable.¹⁵⁷

¹⁵⁰ Comcast *Ex Parte* at 13 (quoting *Pfaff v. U.S. Dep’t of Hous. & Urban Dev.*, 88 F.3d 739, 748 (9th Cir. 1996) (emphasis added)).

¹⁵¹ *Pfaff*, 88 F.3d at 748.

¹⁵² *Wireline Broadband Order*, 20 FCC Rcd at 14907, para. 96.

¹⁵³ Because Comcast has long had actual notice of the Commission’s *Internet Policy Statement*, its further complaint that the statement was “not published in the Federal Register,” Comcast *Ex Parte* at 5, is irrelevant. See 5 U.S.C. § 552(a)(1).

¹⁵⁴ See *supra* para. 27.

¹⁵⁵ *Adelphia/Time Warner/Comcast Order*, 21 FCC Rcd at 8298, para. 220.

¹⁵⁶ *Id.* at 8299, para. 223.

¹⁵⁷ The complaint of the dissent that we should not adjudicate here because our action may have a retroactive effect is meritless. First, “[r]etroactivity is the norm in agency adjudications no less than in judicial adjudications.” *AT&T Inc. v. FCC*, 454 F.3d 329, 332 (D.C. Cir. 2006). Second, in criticizing our citation to *Pfaff*, which indeed was a case relied upon by Comcast, the dissent confuses the question of whether an agency may proceed by adjudication or rulemaking with the distinct question of whether an adjudication may have retroactive effect. And third, any retroactive effect here would not come close to working a “manifest injustice.” *Clark-Cowlitz Joint Operating Agency v. FERC*, 826 F.2d 1074, 1081 (D.C. Cir. 1987) (en banc) (setting forth manifest injustice standard). Although our remedy may have some retroactive effect, its primary purpose is prospective: To ensure that the Commission knows exactly what Comcast is doing and will be doing as it transitions away from its current network management practices — something Comcast has already promised to do — and to monitor Comcast’s compliance

36. Comcast’s concern, that the Commission is adopting standards “very broad and general in scope”¹⁵⁸ in the context of an adjudication, is similarly unproblematic. For one, as explained above and reiterated below, we tailor our analysis here to the particulars of the dispute at issue and do not adopt broad, prophylactic rules.¹⁵⁹ For another, Comcast presents no evidence that we are attempting to avoid notice-and-comment rulemaking procedures by proceeding through adjudication. We have been forthright in seeking public comment on Comcast’s network management practices¹⁶⁰ and the public has been forthcoming in response.¹⁶¹ And besides, Comcast is hardly in a place to complain because it has had ample opportunity to refute Free Press’s allegations and ample opportunity to make its case.¹⁶² Finally, we note that this factor alone is clearly not sufficient to render an agency’s choice of adjudication an abuse of discretion. Indeed, Free Press notes that certain agencies, such as the National Labor Relations Board, “proceed through announcing policy almost exclusively through adjudication.”¹⁶³

37. Comcast also suggests that proceeding by adjudication here is improper because the Commission has previously sought comment on establishing rules for providers of broadband Internet access services.¹⁶⁴ But that suggestion ignores the fact that the Commission was asked to resolve a particular dispute “regardless of whether those standards previously had been spelled out in a general rule or regulation,”¹⁶⁵ as well as the reasons discussed above for hesitating to adopt broad rules in this context.

38. And to the extent that Comcast implies that our ancillary authority does not extend to adjudications but rather must first be exercised in a rulemaking proceeding,¹⁶⁶ it is simply wrong. The question of whether the Commission has jurisdiction to decide an issue is entirely separate from the question of how the Commission chooses to address that issue. Perhaps more to the point, the D.C.

with that commitment. As discussed below, we do not impose any fine or damages on Comcast. Moreover, as discussed in the text, Comcast is hardly in a position to claim that it “relied on [a] former rule” or that our action “represents an abrupt departure from well established practice,” *Retail, Wholesale & Dep’t Store Union, AFL-CIO v. NLRB*, 466 F.2d 380, 390 (D.C. Cir. 1972), in light of the Commission’s warnings, among other places, in the *Adelphia/Time Warner/Comcast Order*. Finally, as discussed above, our decision today advances weighty statutory interests. *See Retail, Wholesale & Dep’t Store Union*, 466 F.2d at 390.

¹⁵⁸ *Pfaff*, 88 F.3d at 748.

¹⁵⁹ *See supra* para. 28–32; *infra* para. 41–53. Thus Comcast is wrong to suggest that we are “attempt[ing] to propose legislative policy by an adjudicative order.” Comcast *Ex Parte* at 16 n. 110 (quoting *First Bancorporation v. Board of Governors of the Federal Reserve System*, 728 F.2d 434, 438 (10th Cir. 1984)). In *First Bancorporation*, the court struck the agency policy only because “the [agency’s] order contain[ed] no adjudicative facts having any particularized relevance to the petitioner.” 728 F.2d at 438.

¹⁶⁰ *See supra* para. 11.

¹⁶¹ The Commission has received over 6,500 comments since the Wireline Competition Bureau sought comment on January 14, 2008 in Docket No. 07-52. *Cf. New York State Comm’n*, 749 F.2d at 815 (“[T]o remand solely because the Commission labeled the action a declaratory ruling would be to engage in an empty formality: the Commission gave adequate notice and received comments from over 25 interested parties. The arguments raised in the proceedings below . . . provided the Commission with both sufficient quantity and diversity of information upon which to decide the questions presented.”).

¹⁶² *Cf. NLRB v. Wyman-Gordon Co.*, 394 U.S. 759, 766 (1969) (holding that regulated party was bound to furnish an employment list “[b]ecause the [agency] in an adjudicatory proceeding directed the respondent itself to” do so, even though the requirement had not been properly made into a formal rule).

¹⁶³ Free Press July 20, 2008, *Ex Parte* at 2.

¹⁶⁴ Comcast Comments at 44–45.

¹⁶⁵ *Chenery II*, 332 U.S. at 201.

¹⁶⁶ Comcast Comments at 49–51.

Circuit has affirmed the Commission's exercise of ancillary authority in an adjudicatory proceeding and in the absence of regulations before.¹⁶⁷

39. We also reject Comcast's argument that adjudication is improper here because "the Commission has a 27-year-old policy of leaving information services unregulated."¹⁶⁸ As reviewed above, the Commission previously indicated that it would not hesitate to take action in the event that providers violated the principles set forth in the *Internet Policy Statement*.¹⁶⁹ Moreover, the Commission repeatedly has stated its willingness to exercise the full range of its statutory authority to ensure that providers of cable modem service meet the public interest in a vibrant, competitive market for Internet-related services. For instance, in the *Wireline Broadband Order*, the Commission found that it had jurisdiction over providers of broadband Internet access services and stated that "we will not hesitate to adopt any non-economic regulatory obligations that are necessary to ensure consumer protection and network security and reliability in this dynamically changing broadband era."¹⁷⁰ Specifically with regard to cable modem service, in the 2002 *Cable Modem Declaratory Ruling* sustained by the Supreme Court in *Brand X*, the Commission sought comment on a wide range of statutory bases for exercising ancillary jurisdiction over cable modem service, including section 230(b) of the Act.¹⁷¹ The Commission also explicitly mentioned the blocking or impairing of subscriber access by a cable modem service provider as possible triggers for Commission "intervention."¹⁷² Moreover, in 2005, the Enforcement Bureau entered into a Consent Decree with Madison River, a provider of broadband Internet access services, which halted that provider's practice of blocking its users' ability to use VoIP.¹⁷³ These and other pronouncements by

¹⁶⁷ See *CBS, Inc. v. FCC*, 629 F.2d 1, 26–27 (1980) (reasoning that the Commission had, in the context of an adjudication, reasonably construed its ancillary authority to encompass television networks), *aff'd*, 453 U.S. 367 (1981); *Complaint of Carter-Mondale Presidential Committee, Inc. against The ABC, CBS and NBC Television Networks*, Memorandum Opinion and Order, 74 FCC 2d 631, para. 25 n.9 (1979) ("Our power to adjudicate complaints involving requests for access to the networks is surely 'reasonably ancillary to the effective performance of the Commission's various responsibilities.'" (quoting *Southwestern Cable Co.*, 392 U.S. at 178)); see also *New York State Comm'n on Cable Television v. FCC*, 749 F.2d 804, 815 (D.C. Cir. 1984) (upholding adjudicatory decision that preempted certain state and local satellite television regulations under Commission's ancillary authority); *Negrete-Rodriguez v. Mukasey*, 518 F.3d 497, 504 (7th Cir. 2008) ("An agency is not precluded from announcing new principles in an adjudicative proceeding rather than through notice-and-comment rule-making.").

¹⁶⁸ Comcast Comments at 44.

¹⁶⁹ Furthermore, in the *Broadband Industry Practices Notice*, the Commission said that "[t]he Commission, under Title I of the Communications Act, has the ability to adopt and enforce the net neutrality principles it announced in the *Internet Policy Statement*." 22 FCC Rcd at 7896, para. 4.

¹⁷⁰ 20 FCC Rcd at 14915, para. 111.

¹⁷¹ See *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4842, para. 79 ("We seek comment on any explicit statutory provisions, including expressions of congressional goals that would be furthered by the Commission's exercise of ancillary jurisdiction over cable modem service. One possibility is the Commission's basic purpose 'to make available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges.' Other statutory grounds might include the goals stated in section 230(b) of the Act, the Title VI goal of assuring 'that cable communications provide and are encouraged to provide the widest possible diversity of information sources and services to the public,' and section 706 of the 1996 Act." (emphases added)).

¹⁷² *Id.* at 4846, para. 92 ("Would a finding that subscriber access to Internet content or services may be blocked or impaired, as compared to other content or services, particularly that provided by the cable operator or its affiliate, support regulatory intervention?").

¹⁷³ *Madison River Communications, LLC and Affiliated Companies*, File No. EB-05-IH-0110, Order, 20 FCC Rcd 4295 (EB 2005) (*Madison River Order*).

the Commission¹⁷⁴ render hollow Comcast's protestation that engaging in this adjudicative proceeding is somehow inconsistent with prior Commission policy.¹⁷⁵

40. Finally, we decline to foreclose the possibility of prescribing rules in this area, should future circumstances warrant such a step. Adjudicating the dispute in front of us does not preclude us from doing so — our venerable *Carterfone* principles, for example, were first established via adjudication and then codified into rules.¹⁷⁶ Thus, we will continue to oversee the practices of broadband Internet access service providers, and we stand prepared to take any action necessary to ensure the continued presence of an open and accessible Internet.

C. Resolving the Dispute

41. We now turn to whether Comcast's conduct runs afoul of federal Internet policy, and to whether we should therefore exercise our authority reviewed above to address it.¹⁷⁷ The record leaves no doubt that Comcast's network management practices discriminate among applications and protocols rather than treating all equally.¹⁷⁸ To reiterate: Comcast has deployed equipment across its networks that monitors its customers' TCP connections using deep packet inspection to determine how many

¹⁷⁴ See, e.g., *Internet Policy Statement*, 20 FCC Rcd at 14988, para. 4 (“[C]onsumers are entitled to run applications and use services of their choice”); *id.* (“[C]onsumers are entitled to connect their choice of legal devices that do not harm the network”); *id.* para. 2 (Although information services providers “are not subject to mandatory common-carrier regulation under Title II, . . . the Commission . . . ‘has jurisdiction to impose additional regulatory obligations under its Title I ancillary jurisdiction to regulate interstate and foreign communications.’” (quoting *Brand X*, 545 U.S. at 976)); *id.* para. 2 n.12 (citing 2005 Enforcement Bureau consent decree in which the VoIP provider agreed “not [to] block ports used for VoIP applications or otherwise prevent customers from using VoIP applications,” *Madison River Order*, 20 FCC Rcd at 4297, para. 5).

¹⁷⁵ As discussed above, *see supra* para. 27, we find that Comcast has waived its challenge to our choice of an adjudication rather than a rulemaking to resolve the present dispute. We informed Comcast of our chosen approach in the *Adelphia/Time Warner/Comcast Order*, and Comcast forfeited its opportunity to challenge that approach when it consummated the transaction approved therein.

¹⁷⁶ See *Carterfone Order*, 13 FCC 2d 420; *Proposals for New or Revised Classes of Interstate and Foreign Message Tolls Telephone Service (MTS) and Wide Area Telephone Service (WATS)*, Docket No. 19528, First Report and Order, 56 FCC 2d 593 (1975) (codifying *Carterfone* principles as Part 68 of our rules).

¹⁷⁷ We do not credit Comcast's argument that Free Press has shifted legal theories and should be “bound by its original allegations.” Comcast *Ex Parte* at 9–10. Rather, we agree with Free Press that its Complaint is reasonably interpreted to rest on the statutory provisions interpreted in and cited by the *Internet Policy Statement*. See Free Press *Ex Parte*, Memorandum 2 at 3. In any event, Comcast has had a more than adequate opportunity to respond to the arguments set forth by Free Press in its June 12, 2008 memoranda, as evidenced by the company's lengthy filing of July 10, 2008, *see Comcast Ex Parte*, and the Commission furthermore is not bound by allegations contained within the four corners of the Free Press Complaint. See 47 U.S.C. § 403. We also reject Comcast's contention that we cannot act because Free Press styled its original submission to us a “formal complaint” but that submission does not comply with the requirements for such a filing. Comcast Response Letter at 12–13. When information comes to Commission's attention suggesting that there has been a violation of the agency's rules or policies, the Commission can take action, regardless of the title the submitting party puts on its submission. See, e.g., *Complaints Against Various Television Licensees Concerning Their Feb. 25, 2003 Broadcast of the Program “NYPD Blue”*, 23 FCC Rcd 3147, 3156, para. 12 & n.68 (2008) (complaint need not be “letter perfect” to prompt Commission inquiry into rule violation), *petition for review pending* (2d Cir. 08-0841).

¹⁷⁸ Although we require Comcast to “disclose to the Commission the precise contours of the network management practices at issue here” so that we may monitor Comcast's transition away from its current practices, *infra* para. 54, the evidence in the record and Comcast's own admissions provide ample support for our adjudication of the dispute at issue and our findings here.

connections are peer-to-peer uploads.¹⁷⁹ When Comcast judges that there are too many peer-to-peer uploads in a given area, Comcast's equipment terminates some of those connections by sending RST packets.¹⁸⁰ In other words, Comcast determines how it will route some connections based not on their destinations but on their contents; in laymen's terms, Comcast opens its customers' mail because it wants to deliver mail not based on the address or type of stamp on the envelope but on the type of letter contained therein.¹⁸¹ Furthermore, Comcast's interruption of customers' uploads by definition interferes with Internet users' downloads since "any end-point that is uploading has a corresponding end-point that is downloading."¹⁸² Also, because Comcast's method, sending RST packets to both sides of a TCP connection, is the same method computers connected via TCP use to communicate with each other, a customer has no way of knowing when Comcast (rather than its peer) terminates a connection.¹⁸³

42. This practice is not "minimally intrusive"¹⁸⁴ but invasive and outright discriminatory. Comcast admits that it interferes with about ten percent of uploading peer-to-peer TCP connections,¹⁸⁵ and independent evidence shows that Comcast's interference may be even more prevalent. In a test of over a thousand networks over the course of more than a million machine-hours, Vuze found that the peer-to-peer TCP connections of Comcast customers were interrupted more consistently and more persistently than those of any other provider's customers.¹⁸⁶ Similarly, independent evidence suggests that Comcast may have interfered with forty if not seventy-five percent of all such connections in certain communities.¹⁸⁷ Comcast also admits that even in its own tests, twenty percent of such terminated connections cannot successfully restart an uploading peer-to-peer connection within a minute.¹⁸⁸ These statistics have real world consequences: We know, for example, that Comcast's conduct disconnected Adam Lynn, who uses peer-to-peer applications to watch movie trailers.¹⁸⁹ We know that Comcast's conduct slowed Jeffrey Pearlman's connection "to a crawl" when he was using peer-to-peer protocols to

¹⁷⁹ Reed Testimony at 3; EFF Reply Comments at 10–12, Attach. at 1 (discussing the events that exposed Comcast's practice).

¹⁸⁰ See Comcast Technical *Ex Parte* at 5.

¹⁸¹ See Letter from Robert M. Topolski to David Cohen, Comcast Corporation, at 5–6 (Apr. 3, 2008) (Topolski Letter); EFF Reply Comments, Attach. at 5 ("Comcast is essentially behaving like a telephone operator that interrupts a phone conversation, impersonating the voice of each party to tell the other that 'this call is over, I'm hanging up.'").

¹⁸² Letter from Marvin Ammori, General Counsel, Free Press, to Marlene H. Dortch, Secretary, FCC, at 9 (July 17, 2008) (Free Press Technical *Ex Parte*).

¹⁸³ Peha Comments at 5 (Apr. 7, 2008); Peha Comments at 4 (Apr. 4, 2008) (characterizing Comcast's practice as a variant on the "man in the middle" attack, a maneuver computer hackers use to intercept and control communications over a network).

¹⁸⁴ Letter from Kathryn A. Zachem, Vice President of Regulatory Affairs, Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, at 2 (July 22, 2008) (Comcast Second Technical *Ex Parte*).

¹⁸⁵ See Letter from Kathryn A. Zachem, Vice President of Regulatory Affairs, Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, at 3 (July 10, 2008) (Comcast Technical *Ex Parte*).

¹⁸⁶ Letter from Henry Goldberg, Counsel, Vuze, Inc., to Marlene H. Dortch, Secretary, FCC, Attached Report at 2–3 (Apr. 22, 2008).

¹⁸⁷ See Topolski Comments at 4 (Feb. 25, 2008); see also Max Planck Institute, "Glasnost: Results from Tests for BitTorrent Traffic Blocking," (Max Planck Institute Report) available at <http://broadband.mpi-sw.s.mpg.de/transparency/results/> (last visited July 31, 2008) (finding that Comcast terminated between twenty and eighty percent of peer-to-peer uploading TCP connections, depending on the time of day); Free Press Technical *Ex Parte* at 10.

¹⁸⁸ See Comcast Technical *Ex Parte* at 3.

¹⁸⁹ Free Press Complaint, Declaration of Adam Lynn (attached).

update his copy of the World of Warcraft game.¹⁹⁰ We know that David Gerisch and Dean Fox had to wait hours if not days to download open-source software over their peer-to-peer clients.¹⁹¹ And we know that Comcast's conduct entirely prevented Robert Topolski from distributing a "rare cache of Tin-Pan-Alley-era 'Wax Cylinder' recordings and other related musical memorabilia" over the Gnutella peer-to-peer network.¹⁹² These actual examples of interference confirm the observation that "[i]t is easy to imagine scenarios where content is unavailable for periods much longer than minutes."¹⁹³

43. On its face, Comcast's interference with peer-to-peer protocols appears to contravene the federal policy of "promot[ing] the continued development of the Internet"¹⁹⁴ because that interference impedes consumers from "run[ning] applications . . . of their choice,"¹⁹⁵ rather than those favored by Comcast,¹⁹⁶ and that interference limits consumers' ability "to access the lawful Internet content of their choice,"¹⁹⁷ including the video programming made available by vendors like Vuze.¹⁹⁸ Comcast's selective interference also appears to discourage the "development of technologies" — such as peer-to-peer technologies — that "maximize user control over what information is received by individuals . . . who use the Internet"¹⁹⁹ because that interference (again) impedes consumers from "run[ning] applications . . . of their choice,"²⁰⁰ rather than those favored by Comcast.²⁰¹ Thus, Free Press has made a

¹⁹⁰ Free Press Complaint, Declaration of Jeffrey Pearlman (attached).

¹⁹¹ Gerisch Comments at 1–2; Fox Comments at 1.

¹⁹² Topolski Comments at 3 (Feb. 25, 2008); *see also* Topolski Letter at 4 ("The OpenOffice (Open Source) suite I attempted to upload to the EFF was blocked. The Holy Bible (Public Domain) was blocked."); Letter from Robert M. Topolski to Marlene H. Dortch, Secretary, FCC, at 3 (July 23, 2008) (Topolski *Ex Parte*) ("I have been unable to upload *anything* on BitTorrent on my connection in any test run since February.").

¹⁹³ Peha Comments at 3; *see also* Ou Comments at 2 (Apr. 28, 2008) (noting that "a TCP reset can in some cases trigger a complete temporary blockage"); Vuze Reply Comments at 10 (contending that "even if Comcast does not completely block traffic associated with Vuze, it is not necessary actually to block Vuze's service to undermine its business. . . . To a company like Vuze whose tech-savvy users have little patience for slow performance or unreliable service, slowing of its traffic or otherwise making its service unreliable, if successful, can be as . . . damaging as outright blocking.").

¹⁹⁴ 47 U.S.C. § 230(b)(1).

¹⁹⁵ *Internet Policy Statement*, 20 FCC Rcd at 14988, para. 4.

¹⁹⁶ *See* Tim Wu, *Network Neutrality, Broadcast Discrimination*, 2 J. Telecomm. & High Tech. L. 141, 151 (2003) (discussing the social and economic losses from "unjustified discrimination").

¹⁹⁷ *Id.*

¹⁹⁸ *See* Open Internet Coalition Comments at 3 (stating that Comcast's actions "negatively affects the ability of all Internet users to access content using applications that use BitTorrent and other P2P protocols stifled by Comcast"); Topolski Letter at 8 ("Comcast users often find themselves with that unique piece of data necessary to complete an upload. In that case, the Comcast user must successfully upload his unique data before other users give up on ever completing the transfer.").

¹⁹⁹ 47 U.S.C. § 230(b)(3); *see also* Testimony of Vinton G. Cerf, Vice President and Chief Internet Evangelist, Google, Inc., Senate Committee on Commerce, Science, and Transportation Hearing on "Network Neutrality," at 2 (Feb. 7, 2006) ("The Internet was designed to maximize user choice and innovation, which has led directly to an explosion in consumer benefits.").

²⁰⁰ *Internet Policy Statement*, 20 FCC Rcd at 14988, para. 4.

²⁰¹ As described in more detail above, Comcast's discriminatory network management practices also run afoul of federal policy because they reduce the rapidity and efficiency of the public Internet, *see supra* para. 16, *cf.* 47 U.S.C. § 151, impede competition, *see supra* para. 16, *cf.* 47 U.S.C. § 151, inhibit the deployment of advanced technologies, *see supra* para. 18, *cf.* 47 U.S.C. § 157 nt, improperly shift traffic (and hence costs) to providers who offer DSL as a common carrier service, *see supra* para. 17, *cf.* 47 U.S.C. § 201, prevent the seamless and transparent flow of information across public telecommunications networks, *see supra* para. 19, *cf.* 47 U.S.C. § 256, erect

prima facie case that Comcast's practices do impede Internet content and applications,²⁰² and Comcast must show that its network management practices are reasonable.²⁰³

44. Comcast tries to avoid this result by arguing that it only delays peer-to-peer applications, and that the *Internet Policy Statement*, properly read, prohibits the blocking of user applications and content, but not mere delays. We do not agree with Comcast's characterization and instead find that the company has engaged in blocking. As one expert explains: "It is never correct to say that Comcast has delayed P2P packets or P2P sessions, because the P2P traffic will never flow again unless the end system initiates a new session to the same device, even though it now believes that device is unable to continue a transfer. The argument that terminating a P2P session is only delaying because a device may attempt to initiate a new session some time later is absurd. By this incorrect argument, there is no such thing as call blocking; there is only delaying."²⁰⁴ Indeed, under Comcast's logic virtually any instance of blocking could be

barriers to entry for entrepreneurs, *see supra* para. 20, *cf.* 47 U.S.C. § 257, and degrade an individual's ability to access a diverse array of content over the Internet, *see supra* paras. 20–21, *cf.* 47 U.S.C. §§ 257, 521(4).

²⁰² We only rule on Comcast's particular conduct at issue. We specifically do not decide today whether other actual or potential conduct, such as giving real-time communications packets (*e.g.*, VoIP) higher priority than other packets or giving higher priority to packets of a particular, unaffiliated content provider pursuant to an arms-length agreement, would violate federal policy.

²⁰³ We are not persuaded by the First Amendment concerns cited by Time Warner Cable. *See, e.g.*, Time Warner Cable Comments at 26–27; Time Warner Cable Reply Comments at 15–16. Our purpose in this *Order* is to promote the dynamic benefits of an open and accessible Internet. As described in more detail elsewhere, we find that Comcast may not, consistent with this purpose, interfere with its customers' use of peer-to-peer networking applications in the manner at issue here. This prohibition does not prevent Comcast from communicating with its customers or others. Nor do we find Time Warner Cable's analogy of a broadband provider to a newspaper to be apt. *See, e.g.*, Time Warner Cable Comments at 27 (arguing that broadband providers have the same First Amendment rights as newspapers and that prohibiting Comcast from interfering with its customers' connections, the Commission would be compelling Comcast to speak). For one, the Commission is not dictating the content of any speech. Nor are we persuaded that Comcast's customers would attribute the content delivered by peer-to-peer applications to Comcast, rather than attributing them to the other parties with whom they have chosen to interact through those applications. Under these circumstances, we find that our actions do not raise First Amendment concerns. In addition, we note that Verizon Wireless raised certain similar concerns with respect to our rules regarding the 700 MHz auction, and we reject Time Warner Cable's arguments for many of the same reasons cited there. *See generally Service Rules for the 698–746, 747–762, and 777–792 MHz Bands; Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones; Biennial Regulatory Review — Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services; Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010; Declaratory Ruling on Reporting Requirement under Commission's Part 1 Anti-Collusion Rule*, WT Docket Nos. 07-166, 06-169, 06-150, 01-309, 03-264, 96-86, CC Docket No. 94-102, PS Docket No. 06-229, Second Report and Order, 22 FCC Rcd 15289, 15369–70, paras. 217–20 (2007) (*700 MHz Second Report and Order*). Indeed, as we similarly noted in the 700 MHz proceeding, we believe that taking action to preserve the open character of the Internet "promotes rather than restricts expressive freedom" because it provides consumers with greater choice in the applications they may use to communicate and the content they may access. *See id.* at 15369, para. 217. We therefore believe that our action today furthers First Amendment values; as the Supreme Court has stated, the First Amendment "rests on the assumption that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public." *Associated Press v. United States*, 326 U.S. 1, 20 (1945).

²⁰⁴ Peha Comments at 3; *see also id.* at 2–3 ("It is factually incorrect to say that the process described [by Comcast] merely delays P2P traffic."); Open Internet Coalition Comments at 7 (arguing that when "traffic is degraded sufficiently . . . it amounts to blocking — when files that should take minutes to transfer take several hours, the effect is the same as blocking"); EFF Reply Comments, Attach. at 3–5 (concluding that, with couple of exceptions, Comcast's practice makes certain peer-to-peer applications "simply not work").

recharacterized as a form of delay. We are likewise unpersuaded by Comcast's argument that terminating peer-to-peer connections does not equate to blocking access to content because Internet users may upload such content from other sources²⁰⁵ — whether or not blocking content was Comcast's intent, Comcast's actions certainly had that effect in some circumstances.²⁰⁶ In any event, the semantic dispute of “delaying vs. blocking” is not outcome determinative here.²⁰⁷ Regardless of what one calls it, the evidence reviewed above shows that Comcast selectively targeted and terminated the upload connections of its customers' peer-to-peer applications and that this conduct significantly impeded consumers' ability to access the content and use the applications of their choice. These facts are the relevant ones here, and we thus find Comcast's verbal gymnastics both unpersuasive and beside the point.

45. Next, Comcast asserts that even if its practice is discriminatory, it qualifies as reasonable network management.²⁰⁸ However, experts in the field generally disagree strongly with Comcast's assertion that its network management practices are reasonable. The Internet Engineering Task Force, a repository for the standards and protocols that underlie the functioning of the Internet,²⁰⁹ has promulgated universal definitions for how the TCP protocol is intended to work.²¹⁰ So far in the Internet's history, these standards have created “the equivalent of perfect competition . . . among applications and content . . . with a minimum interference by the network or platform owner.”²¹¹ Significantly, Comcast's practices contravene those standards.²¹² Comcast's method of sending RST packets to interrupt and terminate TCP connections thus contravenes the established expectations of users and software developers for seamless and transparent communications across the Internet — this practice, known as RST Injection, “violate[s] the expectation that the contents of the envelopes are untouched inside and between Autonomous Systems” and “potentially disrupt[s] systems and applications that are designed assuming the expected behavior of the Internet.”²¹³

²⁰⁵ See, e.g., Comcast Comments at 33 (“Comcast's network management practices do not, have not, and will not prevent its subscribers from accessing the Internet content of their choice . . .”).

²⁰⁶ See *supra* para. 42.

²⁰⁷ See Free Press Comments at 36–38 (addressing the semantic debate of whether Comcast's practices are “blocking” or “delaying”).

²⁰⁸ Free Press requests that we declare that a broadband Internet service access provider's selective interference with a particular protocol or application be a per se unreasonable network management practice. See Free Press Petition at 28. Because we prefer a more nuanced approach to the issue at this time, we decline Free Press's request.

²⁰⁹ See Internet Engineering Task Force, *available at* <http://www.ietf.org/> (last visited July 31, 2008).

²¹⁰ See, e.g., RFC 793/Internet Standard STD 7, *available at* <http://tools.ietf.org/html/rfc793> (last visited July 31, 2008) (defining the Transmission Control Protocol, or TCP); see also Topolski *Ex Parte* at 3 (noting the common set of Internet standards, RFC 5000/STD 1).

²¹¹ Testimony of Lawrence Lessig, C. Wendell and Edith M. Carlsmith Professor of Law, Stanford Law School, Senate Committee on Commerce, Science and Transportation Hearing on “The Future of the Internet,” at 2 (Apr. 22, 2008).

²¹² See Reed Testimony at 3 (citing Sally Floyd, *Inappropriate TCP Resets Considered Harmful*, Internet RFC 3360 (Aug. 2002), *available at* <http://www.ietf.org/rfc/rfc3360.txt?number=3360>); Free Press Technical *Ex Parte* at 2 (arguing that Comcast's practices deviate from accepted standards); Center for Democracy and Technology Comments at 10; Topolski *Ex Parte* at 3 (arguing that Comcast's practices transgress Internet standards); J.H. Saltzer, D.P. Reed, & D.D. Clark, *End-to-End Arguments in System Design*, 2 ACM Transactions on Computer Systems 277 (1984); Lawrence Lessig & Mark A. Lemley, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. Rev. 925, 931 (2001) (arguing that, according to the Internet's design, “communications protocols themselves (the ‘pipes’ through which information flows) should be as simple and as general as possible”), cited in EFF Reply Comments, Attach. at 6. See generally Wu, *supra* note 196.

²¹³ Reed Testimony at 3.

46. As such, numerous experts have condemned Comcast's practice as an unreasonable form of network management. For example, Professor Jon Peha of Carnegie Mellon termed Comcast's practices a "possible case of consumer fraud"²¹⁴ and stated that he was "unaware of any technical literature that has proposed that ISPs adopt this particular practice as a way of dealing with congestion, or to use this practice to address any other issue that might be important in the context of 'network management.'"²¹⁵ Indeed, he questioned whether Comcast's practices fell "within the realm of network management at all, much less reasonable network management."²¹⁶ Professor David Reed of the Massachusetts Institute of Technology said that "[n]either Deep Packet Inspection nor RST Injection" — Comcast uses both to manage its network — "are acceptable behavior."²¹⁷ Professor David Clark of the Massachusetts Institute of Technology testified that Comcast was in essence "imposing a value judgment on the consumer, and that is, in the end, looking at your customer and saying 'enemy.'"²¹⁸ Professor Tim Wu of Columbia Law School said that "Comcast's methods aren't even in the same league" as reasonable network management and that Comcast was practicing a "form of censorship and filtering rather than management."²¹⁹ And Professor Barbara van Schewick of Stanford Law School called Comcast's practices not only unreasonable but also "most harmful for application-level innovation and user choice."²²⁰

47. Moreover, Comcast's practice selectively blocks and impedes the use of particular applications, and we believe that such disparate treatment poses significant risks of anticompetitive abuse. To the extent that a provider argues that such highly questionable conduct constitutes "reasonable network management," there must be a tight fit between its chosen practices and a significant goal. Accordingly, for Comcast's practice to qualify as reasonable network management, the company's justification for its practice must clear a high threshold.²²¹ Its practice should further a critically important

²¹⁴ Peha Comments at 5.

²¹⁵ *Id.* at 4.

²¹⁶ *Id.*

²¹⁷ Reed Testimony at 2. We agree that Comcast's use of Deep Packet Inspection here was unacceptable. However, we make no judgment on the use of this method for different purposes, such as distinguishing legal from illegal content. *See infra* para. 50.

²¹⁸ Webcast of Feb. 25, 2008 Broadband Network Management Practices En Banc Public Hearing, Harvard Law School, Cambridge, MA, at 3:31:36–51, *available at* <http://www.fcc.gov/realaudio/mt022508v.ram> (last visited July 31, 2008).

²¹⁹ Testimony of Tim Wu, Professor of Law, Columbia University, First Public En Banc Hearing on Broadband Network Management Practices, at 2 (Feb. 25, 2008).

²²⁰ Testimony of Barbara van Schewick, Assistant Professor of Law, Stanford Law School, Second Public En Banc Hearing on Broadband Network Management Practices, at 3 (Apr. 17, 2008) (van Schewick Testimony); *see also*; Part-15.Org Comments at 6 ("[S]pecifically targeting a specific type of IP protocol would not be in keeping with open-access."); Aaron G. Comments at 2 ("Reasonable traffic shaping . . . only slows [traffic] down or re-queues it to such an extent that the high priority traffic gets the share it needs."); NATOA Comments at 4–5 ("There is no plausible technical or economic reason to suggest that blocking particular applications is a reasonable way to manage a network, particularly because network providers have numerous nondiscriminatory ways to manage the network.").

²²¹ *Cf. Filing and Review of Open Network Architecture Plans*, CC Docket No. 88-2, Memorandum Opinion and Order, 6 FCC Rcd 7646, 7667–68, para. 47 (1991) (concluding that, in light of the competitive importance of enhanced service providers' access to Bell Operating Companies' operations support systems, it would examine "with a heightened level of scrutiny" the progress reports of those Bell Operating Companies that had not demonstrated significant progress); *Southwestern Bell Corp. v. FCC*, 896 F.2d 1378, 1381 (D.C. Cir. 1990) (upholding the Commission's accounting rules for affiliate transactions, noting that the petitioners themselves "admit that affiliate transactions call for 'heightened regulatory scrutiny'" to protect against possible cost misallocation between regulated and nonregulated activities); *Maine v. Taylor*, 477 U.S. 131, 138 (1986) ("[O]nce a state law is shown to discriminate against interstate commerce 'either on its face or in practical effect,' the burden

interest and be narrowly or carefully tailored to serve that interest. Comcast justifies its practice as a means of easing network congestion, and we will assume without deciding that this is a critically important interest.

48. We next must ask whether Comcast's means are carefully tailored to its interest in easing network congestion, and it is apparent that no such fit exists. As an initial matter, Comcast's practice is overinclusive for at least three independent reasons. First, it can affect customers who are using little bandwidth simply because they are using a disfavored application.²²² Second, it is not employed only during times of the day when congestion is prevalent: "Comcast's current P2P management is triggered . . . regardless of the level of overall network congestion at that time, and regardless of the time of day."²²³ And third, its equipment does not appear to target only those neighborhoods that have congested nodes²²⁴ — evidence suggests that Comcast has deployed some of its network management equipment several routers (or hops) upstream from its customers, encompassing a broader geographic and system area.²²⁵ With some equipment deployed over a wider geographic or system area, Comcast's technique may impact numerous nodes within its network simultaneously, regardless of whether any particular node is experiencing congestion. Furthermore, Comcast's practice suffers from the flaw of being underinclusive. A customer may use an extraordinary amount of bandwidth during periods of

falls on the State to demonstrate both that the statute 'serves a legitimate local purpose,' and that this purpose could not be served as well by available nondiscriminatory means." (quoting *Hughes v. Oklahoma*, 441 U.S. 322, 336 (1986)).

²²² See EFF Reply Comments, Attach. at 7 ("Furthermore, in our testing, we saw no evidence that Comcast was targeting their jamming efforts at customers based on their individual consumption of bandwidth. . . . If Comcast had carefully engineered its interventions to prevent certain users from contributing disproportionately to network congestion, we would expect to see jamming only after subscribers consumed large amounts of bandwidth, or when they were participating in large numbers of connections in a short period of time."); Free Press Comments at 35 ("Comcast's actions do not merely affect bandwidth hogs but affect all users of a particular set of protocols."); Letter from Angela M. Simpson, President, Voice on the Net Coalition, to Marlene H. Dortch, Secretary, FCC, at 3–4 (Mar. 14, 2008) (arguing that peer-to-peer VoIP applications generally represent just a "trickle" in today's growing broadband pipes and that Comcast's practice unfairly lumps such applications in with more intensive bandwidth users).

²²³ Comcast Technical *Ex Parte* at 5; see also Topolski Comments at 4 (Feb. 25, 2008) (citing evidence that Comcast interfered with peer-to-peer connections "regardless of the time of day or night, regardless of the day of the week, and the presumable differences in network congestion during prime time and non-prime time hours of use"); Max Planck Institute Report, cited in Free Press Technical *Ex Parte* at 10.

²²⁴ See Topolski Letter at 4 ("[I]t needs to be noted that Comcast's installation of Sandvine is at the metropolitan area's aggregation point"); Free Press Technical *Ex Parte* at 11 (citing evidence that Comcast's network management techniques are deployed not at the neighborhood level but "on [the] access routers . . . where the metropolitan area meets 'the backbone'"); Comcast Technical *Ex Parte* at 5 & n.16 (admitting that although "Comcast's network management generally occurs at the data node level," "two small [data nodes] near each other may be managed by a single device" (emphasis added)).

²²⁵ This evidence may be summarized roughly as follows: Packets sent over the Internet include TTL or Time-To-Live counters that decrease each time the packet hops to a new destination (*i.e.*, passes another network router). Knowing this, Robert Topolski tested several peer-to-peer TCP connections. RST packets interrupted eighteen of those tests. Using the "trace" application, Topolski determined that each of these interruptions occurred after the connecting packet's TTL had decreased by five, *i.e.*, after that packet had traveled past four separate routers and was headed out of Comcast's network. See Comments, "DSLReports: Comcast is using Sandvine to manage P2P Connections" (Aug. 23–24, 2007), available at <http://www.dslreports.com/forum/r18936691-SandvineBoxFound> (last visited July 31, 2008); see also Topolski *Ex Parte* at 4–5. That the connecting packets traveled so far before being interrupted suggests that Comcast's network management equipment is not located at the neighborhood level.

network congestion and will be totally unaffected so long as he does not utilize a disfavored application.²²⁶

49. Moreover, Comcast has several available options it could use to manage network traffic without discriminating as it does. Comcast could cap the average users' capacity and then charge the most aggressive users overage fees.²²⁷ Or Comcast could throttle back the connection speeds of high-capacity users (rather than any user who relies on peer-to-peer technology, no matter how infrequently).²²⁸ Or Comcast can work with the application vendors themselves.²²⁹ As Comcast has touted in this very dispute, negotiations with Pando and BitTorrent, Inc. and other peer-to-peer application companies have advanced the creation of the P4P protocol, which promises "backbone bandwidth optimization" and "improve[d] P2P download performance."²³⁰ Although we do not endorse any of these particular solutions today, they all appear far better tailored to Comcast's basic complaint

²²⁶ See Payne Reply Comments at 7–8 ("By singling out and controlling particular sources of high volume use to control congestion claimed 'caused' by these sources, Comcast is giving a free ride to all other users during peak periods who contribute equally to congestion . . ."); Comcast Hearing Remarks at 13 ("Our network management does not 'discriminate' based on . . . the identity of the provider or customer using the P2P protocols . . ."); Topolski Letter at 5 ("If a Comcast user chooses a Client-Server application to transfer files, such as a web-based browser client or an FTP client, the sessions are allowed unmolested. However, if a Comcast user chooses a Peer-to-Peer application . . . the communications by that application are eventually met with Comcast's forged-injected RST interference . . ."); see also Peha Comments at 4 ("When there is congestion on the beltway (i.e. the ring of highways around Washington DC), it would be ridiculous to assert that this congestion is caused only by the blue cars, even at times when removing the blue cars would end the congestion. Every car that travels on the busiest roadways during peak hours contributes to congestion, and every car suffers from that congestion. Similarly, when the total traffic on a link within Comcast's network is too high, all of the traffic on that link is contributing to congestion.").

²²⁷ We have noted that discriminatory network management is generally an unreasonable response to increased congestion, given the alternatives of "feasible facility improvements or technology-neutral capacity pricing that does not discriminate against subscribers using third-party devices or applications." See *700 MHz Second Report and Order*, 22 FCC Rcd at 15371, para. 222. Although Comcast rejects a metering solution as incomplete and potentially unviable, Comcast Reply Comments at 17–18, it is a solution embraced by at least one competitor. See Time Warner Cable Comments at 24; Brian Stelter, *To Curb Traffic on the Internet, Access Providers Consider Charging by the Gigabyte*, New York Times (June 15, 2008) ("Time Warner Cable, began a trial of 'Internet metering' in one Texas city early this month, asking customers to select a monthly plan and pay surcharges when they exceed their bandwidth limit."), available at <http://www.nytimes.com/2008/06/15/technology/15cable.html> (last visited July 31, 2008); see also Information Technology and Innovation Foundation Comments at 9 ("Metered pricing and data caps for broadband services are common in many nations.").

²²⁸ Hughes apparently follows such a practice. See Comcast Comments at 21. And one commenter suggests that Comcast's promised non-discriminatory network management practices follow this approach. See Letter from George Ou, Senior Analyst, Information Technology and Innovation Foundation, to the Commission, at 9 (July 15, 2008) ("[Comcast's] new system will attempt to fairly distribute bandwidth amongst users instead of amongst protocols so that it can be completely accurate and fair.").

²²⁹ Several commenters recommend just this solution. See, e.g., Soghoian Comments at 2 (If Comcast made "available information on what it considers the peak periods of network traffic . . . it would . . . not be difficult for the authors of BitTorrent applications to modify their programs to query a Comcast server to determine what is the best time to upload/download data.").

²³⁰ Letter from Kathryn A. Zachem, Vice President of Regulatory Affairs, Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, Attach. at 4 (May 16, 2008); see also *id.* at 1 (describing Comcast's efforts with the Distributed Computing Industry Association to come up with best practices for peer-to-peer applications); AT&T Comments at 16–18 (describing AT&T's efforts in the same vein); DCIA Comments at 5–6 (stating that the P4P working group "seeks to create a framework to enable better ISP and P2P coordination" that improves throughput to P2P users, enables ISPs to manage link utilization, reduces the number of links transited by content, and transitions traffic from links having limited capacity links to links with available capacity).

that a “disproportionately large amount of the traffic currently on broadband networks originates from a relatively small number of users.”²³¹

50. Comcast and several other commenters maintain a continual refrain that “all network providers must manage bandwidth in some manner”²³² and that providers need “flexibility to engage in the reasonable network management practices.”²³³ We do not disagree, which is precisely why we do not adopt here an inflexible framework micromanaging providers’ network management practices.²³⁴ We also note that because “consumers are entitled to access the *lawful* Internet content of their choice,”²³⁵ providers, consistent with federal policy, may block transmissions of illegal content (*e.g.*, child pornography) or transmissions that violate copyright law.²³⁶ To the extent, however, that providers choose to utilize practices that are not application or content neutral, the risk to the open nature of the Internet is particularly acute and the danger of network management practices being used to further anticompetitive ends is strong. As a result, it is incumbent on the Commission to be vigilant and subject such practices to a searching inquiry, and here Comcast’s practice falls well short of being carefully tailored to further the interest offered by the company.

51. For all of the foregoing reasons, it is our expert judgment that Comcast’s practices do not constitute reasonable network management, a judgment that is generally confirmed by experts in the field.²³⁷ Comcast’s practices contravene industry standards and have significantly impeded Internet users’ ability to use applications and access content of their choice. Moreover, the practices employed by Comcast are ill-tailored to the company’s professed goal of combating network congestion. In sum, the record evidence overwhelmingly demonstrates that Comcast’s conduct poses a substantial threat to both the open character and efficient operation of the Internet, and is not reasonable.

52. There is still one more factor we have yet to address: Comcast’s failure to disclose its network management practices to its customers. Although we have not adopted (and we decline to adopt today) general disclosure requirements for the network management practices of providers of broadband Internet access services, the anticompetitive harm perpetuated by discriminatory network management practices is clearly compounded by failing to disclose such practices to consumers. Many consumers experiencing difficulty using only certain applications will not place blame on the broadband Internet access service provider, where it belongs, but rather on the applications themselves, thus further

²³¹ Comcast Comments at 25.

²³² *Id.* at 17.

²³³ Comcast Reply Comments at 14.

²³⁴ Some commenters cite supposedly similar, or more restrictive, policies regarding peer-to-peer traffic of other entities, such as colleges and universities. *See, e.g.*, Letter from Daniel L. Brenner, Senior Vice President, Law & Regulatory Policy, NCTA, to Marlene H. Dortch, Secretary, FCC, at 1 (July 24, 2008). Other commenters respond that there are additional distinguishing factors in those cases. *See, e.g.*, Letter from Mark Luker, Vice President, EDUCAUSE, to Marlene H. Dortch, Secretary, FCC, at 1–3 (July 25, 2008) (claiming, among other things, different legal and policy implications for management of private networks such as those operated by colleges and universities); Letter from Robert W. Quinn, Senior Vice President-Federal Regulatory, AT&T, to Robert M. McDowell, Commissioner, FCC, at 1–2 (July 25, 2008) (distinguishing between enforceable terms in contracts with end-users and the use of network management technologies, and discussing technological characteristics of mobile wireless networks). Given the case-by-case approach that we set forth in this item, we do not (and need not) opine here on other policies and practices.

²³⁵ *Internet Policy Statement*, 20 FCC Rcd at 14988, para. 4 (emphasis added).

²³⁶ *Cf.* Bryan H. Choi, *The Grokster Dead End*, 19 Harv. J. L. & Tech. 393, 410–11 (2006) (arguing that secondary liability suits are a “dead-end” for preventing violations of copyright law).

²³⁷ *See supra* para. 45.

disadvantaging those applications in the marketplace.²³⁸ On the other hand, disclosure of network management practices to consumers in a manner that customers of ordinary intelligence would reasonably understand would enhance the “vibrant and competitive free market . . . for the Internet and interactive computer services”²³⁹ by allowing consumers to compare and contrast competing providers’ practices.²⁴⁰

53. Comcast’s claim that it has always disclosed its network management practices to its customers is simply untrue. Although Comcast’s Terms of Use statement may have specified that its broadband Internet access service was subject to “speed and upstream and downstream rate limitations,”²⁴¹ such vague terms are of no practical utility to the average customer. Of course there are “limitations” on the speed and bitrate of a customer’s Internet connection, but even the best-informed customer would not have inferred from these or Comcast’s other terms of service that peer-to-peer protocols were disfavored on Comcast’s networks. And although Comcast eventually disclosed some elements of its network management practices to customers, Comcast’s first reaction to allegations of discriminatory treatment was not honesty, but at best misdirection and obfuscation.²⁴² If Comcast actually believed its practices were reasonable, it should not have behaved in this manner. A hallmark of whether something is reasonable is whether a provider is willing to disclose to its customers what it is doing. To the extent that Comcast wishes to employ capacity limits in the future, it should disclose those to customers in clear terms.

54. *Remedy.* — We finally turn to the issue of what action the Commission should take in this adjudicatory proceeding. Section 4(i) of the Act authorizes us to tailor a remedy to “best meet the particular factual situation before [us].”²⁴³ Our overriding aim here is to end Comcast’s use of unreasonable network management practices, and our remedy sends the unmistakable message that Comcast’s conduct must stop. We note that Comcast has committed in this proceeding to end such practices by the end of this year and instead to institute a protocol-agnostic network management

²³⁸ See Peha Comments at 5 (“For example, users who saw problems would be likely to incorrectly attribute them to faults in their own hardware or software, even when those problems are entirely caused by Comcast’s secret MITM [“man in the middle”] attacks. In addition to P2P users, this is reportedly what happened to users of Lotus Notes, whose traffic was allegedly similarly affected by Comcast practices. Incidents like these can be frustrating, time-consuming, and costly for those affected.”); cf. James Fallows, *The Connection Has Been Reset*, *The Atlantic Monthly* (Mar. 2008) (explaining that the Chinese government’s Internet management practices “leave the Chinese Internet public unsure about where the off-limits line will be drawn on any given day. . . . In China, the connection just times out. Is it your computer’s problem? The firewall? Or maybe your local Internet provider, which has decided to do some filtering on its own? You don’t know. ‘The unpredictability of the firewall actually makes it more effective,’ another Chinese software engineer [said]. ‘It becomes much harder to know what the system is looking for, and you always have to be on guard.’”).

²³⁹ 47 U.S.C. § 230(b)(2).

²⁴⁰ See van Schewick Testimony at 3 (“[D]isclosed information must provide enough detail to enable customers to make an informed decision and to enable them to adjust their behavior. Comcast’s current acceptable use policy falls short of these goals.”); EFF Reply Comments at 3–4 (arguing that Comcast’s failure to disclose its practices prevented consumers from expressing their preferences by “voting with their wallets”).

²⁴¹ Comcast Comments at 40.

²⁴² See *supra* para. 6. Although Comcast and certain other commenters contend that competition among broadband Internet access providers is sufficient to address any concerns regarding network management practices, they do not address the effects of this information asymmetry between the broadband Internet access provider and its customers and competitors. See, e.g., Comcast Comments at 54–55; Comcast Reply Comments at 38–39; Qwest Comments at 5; Verizon Comments at 10. For the same reasons, we likewise are unconvinced that a vocal minority will provide a sufficient constraint on broadband Internet access providers’ network management practices. See, e.g., Qwest Comments at 5; Verizon Comments at 5.

²⁴³ *Ashtabula Cable TV, Inc. v. Ashtabula Tel. Co.*, Docket No. 17482, Decision, 17 FCC 2d 113, 119, para. 116 (1969).

technique.²⁴⁴ We also recognize the need for a reasonable transition period.²⁴⁵ In light of Comcast's past conduct, however, we believe that the Commission must take action to ensure that Comcast lives up to its promise and will therefore institute a remedy consistent with President Reagan's famous maxim "trust but verify." Specifically, in order to allow the Commission to monitor Comcast's compliance with its pledge, the company must within 30 days of the release of this *Order*: (1) disclose to the Commission the precise contours of the network management practices at issue here, including what equipment has been utilized, when it began to be employed, when and under what circumstances it has been used, how it has been configured, what protocols have been affected, and where it has been deployed; (2) submit a compliance plan to the Commission with interim benchmarks that describes how it intends to transition from discriminatory to nondiscriminatory network management practices by the end of the year; and (3) disclose to the Commission and the public the details of the network management practices that it intends to deploy following the termination of its current practices, including the thresholds that will trigger any limits on customers' access to bandwidth.²⁴⁶ These disclosures will provide the Commission with the information necessary to ensure that Comcast lives up to the commitment it has made in this proceeding.

55. To the extent that Comcast fails to file the information required above within 30 days of the release of this *Order*, three steps will occur: (1) interim injunctive relief automatically will take effect requiring Comcast to suspend the network management practices described above within 35 days of the release of this *Order*;²⁴⁷ (2) the Enforcement Bureau will immediately issue an order directing Comcast to show cause why a permanent cease-and-desist order should not be issued against it; and (3) a hearing will be set for thirty days after Comcast's receipt of that order. Similarly, to the extent that Comcast does file the information required above within 30 days of the release of this *Order* but does not follow through on its commitment to end its discriminatory network management practices by the end of the year, three similar steps will occur: (1) interim injunctive relief automatically will take effect requiring Comcast to suspend immediately the network management practices described above; (2) the Enforcement Bureau will immediately issue an order directing Comcast to show cause why a permanent cease-and-desist order should not be issued against it; and (3) a hearing will be set for 30 days after Comcast's receipt of such show-cause order.

²⁴⁴ See Letter from Kathryn A. Zachem, Vice President of Regulatory Affairs, Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, at 2 (July 10, 2008) ("We reiterate here that the entire Comcast network will be migrated to [a] new protocol-agnostic management technique by December 31, 2008." (emphasis omitted)); Letter from David L. Cohen, Executive Vice President, Comcast Corporation, to Kevin J. Martin, Chairman, FCC, at 2 (Mar. 28, 2008).

²⁴⁵ Accordingly, we deny Free Press's request for both a preliminary injunction and a permanent injunction that would require immediate compliance with federal policy, see Free Press Complaint at 24–33, as well as various citizen requests for such "immediate" action. See *supra* para. 10.

²⁴⁶ In the event that Comcast has not finalized the details of the network management practices that it intends to deploy following termination of its current practices in time to meet this deadline, it may instead submit to the Commission a certification to this effect. Should Comcast submit such a certification, Comcast will be required to disclose to the Commission and the public the details of the network management practices that it intends to deploy following the termination of its current practices at least two weeks prior to instituting those new practices.

²⁴⁷ The Supreme Court affirmed the Commission's authority to impose interim injunctive relief pursuant to section 4(i) in *Southwestern Cable*, see 392 U.S. at 181, and the Commission has utilized such authority in the past. See *Time Warner Cable, A Division of Time Warner Entertainment Company, L.P.*, MB Docket No. 06-151, Order, 21 FCC Rcd 8808 (2006); *AT&T Corp. v. Ameritech Corp.*, File No. E-98-41, Memorandum Opinion and Order, 13 FCC Rcd 14508 (1998); see also *Implementation of the Telecommunications Act of 1996; Amendment of Rules Governing Procedures to be Followed When Formal Complaints Are Filed Against Common Carriers*, CC Docket No. 96-238, Report and Order, 12 FCC Rcd 22497, 22566, para. 159 & n.464 (1997) (stating that the Commission has authority under section 4(i) of the Act to award injunctive relief).

56. We invite Free Press and other members of the public to keep a watchful eye on Comcast as it carries out this relief. Using the information provided by Comcast pursuant to this *Order* as well as information submitted by the public, we will closely monitor the company's network management practices.²⁴⁸ Accordingly, we will not terminate this proceeding but rather retain jurisdiction over this matter.

IV. ORDERING CLAUSES

57. Accordingly, IT IS ORDERED that, pursuant to sections 1, 2(a), 4(i), 4(j), 201(b), 230(b), 256, 257, 303(r), 403, and 601 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152(a), 154(i), 154(j), 201(b), 230(b), 256, 257, 303(r), 403, 521, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, the complaint filed by Free Press against Comcast Corporation on November 1, 2007 IS GRANTED TO THE EXTENT HEREIN DESCRIBED AND OTHERWISE DENIED.

58. IT IS FURTHER ORDERED that, pursuant to sections 1, 2(a), 4(i), 4(j), 201(b), 230(b), 256, 257, 303(r), 403, and 601 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152(a), 154(i), 154(j), 201(b), 230(b), 256, 257, 303(r), 403, 521, section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, and section 1.2 of the Commission's rules, 47 C.F.R. § 1.2, the petition for a declaratory ruling filed by Free Press on November 1, 2007 IS GRANTED TO THE EXTENT HEREIN DESCRIBED AND OTHERWISE DENIED.

59. IT IS FURTHER ORDERED that, pursuant to sections 1, 2(a), 4(i), 4(j), 201(b), 230(b), 256, 257, 303(r), 403, and 601 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152(a), 154(i), 154(j), 201(b), 230(b), 256, 257, 303(r), 403, 521, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, Comcast must take the steps set forth in paragraph 54 of this *Memorandum Opinion and Order*.

60. IT IS FURTHER ORDERED that this *Memorandum Opinion and Order* SHALL BE EFFECTIVE upon release.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

²⁴⁸ We decline, at this time, to assess any forfeitures against Comcast, cognizant of concerns that have been expressed about fining Comcast in our first adjudication in this area. *See supra* para. 34.

APPENDIX

List of Commenters

Broadband Industry Practices, WC Docket No. 07-52, Comment Sought on Petition for Declaratory Ruling Regarding Internet Management Policies, Public Notice, 23 FCC Rcd 340 (WCB 2008).

<u>Commenter</u>	<u>Abbreviation</u>
American Homeowners Grassroots Alliance	AHGA
American Library Association	ALA
AT&T Inc.	AT&T
Richard Bennett	Bennett
Center for Democracy & Technology	CDT
Comcast Corporation	Comcast
Competitive Enterprise Institute	CEI
Computer & Communications Industry Association	CCIA
CTIA f--f The Wireless Association	CTIA
Discovery Institute	Discovery Institute
Distributed Computing Industry Association	DCIA
Embarq	Embarq
Dean Fox	Fox
Fiber-to-the-Home Council	FTTH Council
Free Press; Public Knowledge; Media Access Project; Consumer Federation of America; Consumers Union; New America Foundation; Participatory Culture Foundation	Free Press
Free State Foundation	Free State
Frontier Communications	Frontier
Laurence Brett Glass d/b/a LARIAT	LARIAT
David Gerisch	Gerisch
Global Crossing North America, Inc.	Global Crossing
Hands off the Internet	Hands off the Internet
Health Tech Strategies, LLC	HTS
Independent Telephone & Telephone Communications Alliance	ITTA
Information Technology and Innovation Foundation	ITIF
Information Technology Association of America	ITAA
Institute for Policy Innovation	IPI
Danny Ray Jackson	Jackson
Labor Council for Latin American Advancement	LCLAA
Nickolaus E. Leggett	Leggett
Curtis L. Lowery, M.D., University of Arkansas for Medical Sciences	Lowery
Brad Lindaas <i>et al.</i> , Northwestern University Students for Net Neutrality	Lindaas <i>et al.</i>
National Association of Realtors	Nat'l Ass'n of Realtors
National Association of State Utility Consumer Advocates	NASUCA
National Association of Telecommunications Officers and Advisors	NATOA
National Black Chamber of Commerce	NBCC
National Cable and Telecommunications Association	NCTA
National Grange of the Order of Patrons of Husbandry	National Grange
National Public Safety Telecommunications Council	NPSTIC
National Telecommunications Cooperative Association	NTCA
NBC Universal Inc.	NBC Universal

New York Public Service Commission	NYPSC
The OASIS Institute	OASIS
Open Internet Coalition	Open Internet Coalition
Organization for the Promotion and Advancement of Small Telecommunications Companies	OPASTCO
George Ou	Ou
Part-15 Organization	Part-15.ORG
Progress and Freedom Foundation	PFF
Qwest Communications International, Inc.	Qwest
Recording Industry Association of America	RIAA
SafeMedia Corporation	SafeMedia
Small Business and Entrepreneurship Council	SBE Council
Christopher Soghoian	Soghoian
Sony Electronics, Inc.	Sony
Telecommunication Industry Association	TIA
Time Warner Cable, Inc.	Time Warner
Steven Titch, The Reason Foundation	Titch
Michael Trausch	Trausch
Joseph Tucek	Tucek
U.S. Chamber of Commerce	US Chamber of Commerce
United States Internet Industry Association	USIIA
United States Telecom Association	USTelecom
Verizon and Verizon Wireless	Verizon
Vonage Holdings Corp.	Vonage
Vuze, Inc.	Vuze
Women Impacting Public Policy	WIPP
Wireless Communications Association International, Inc.	WCA

Reply Commenter**Abbreviation**

Beth Ahern	Ahern
Ad Hoc Telecom Manufacturer Coalition	AdHoc
Advanced Communications Law & Policy Institute at New York Law School	ACLPI
American Legislative Exchange Council, Telecommunications & Information Technology Task Force	ALEC
AT&T Inc.	AT&T
Richard Bennett	Bennett
BeSafe Technologies Inc.	BeSafe
Center for Democracy & Technology	CDT
Christian Coalition of America; the CP80 Foundation; Enough is Enough; and Stop Child Predators	Christian Coalition <i>et al.</i>
Cisco Systems, Inc.	Cisco
CTIA – The Wireless Association	CTIA
Comcast Corporation	Comcast
Computer & Communications Industry Association	CCIA
Consumer Federation of America and Consumers Union	CFA/CU
Electronic Frontier Foundation	EFF
Free Press; Public Knowledge; Media Access Project; Consumer Federation of America; Consumers Union; New America Foundation; Participatory Culture Foundation	Free Press

Aaron G.	Aaron G.
Hands Off the Internet	Hands Off the Internet
Sean Kass	Kass
Motion Picture Association of America	MPAA
The National Grange of the Order of Patrons of Husbandry	National Grange
New Jersey Division of Rate Counsel	NJ Rate Counsel
National Association of State Utility Consumer Advocates	NASUCA
National Black Chamber of Commerce; Labor Council for Latin American Advancement; Latinos in Information Sciences and Technology Association; League of Rural Voters; National Black Justice Coalition; National Council of Women's Organizations; and National Congress of Black Women	NBCC Coalition
NBC Universal, Inc.	NBC Universal
Barry Payne	Payne
The Progress & Freedom Foundation	PFF
Recording Industry Association of America	RIAA
Songwriters Guild of America	SGA
Sprint Nextel Corporation	Sprint Nextel
Anthony Tarsia	Tarsia
Telecommunications for the Deaf and Hard of Hearing, Inc.	TDI
Telecommunications Industry Association	TIA
S. Michael Telford	Telford
Time Warner Cable Inc.	Time Warner
Robert M. Topolski	Topolski
U.S. Chamber of Commerce	US Chamber of Commerce
U.S. Distance Learning Association	USDLA
United States Hispanic Leadership Institute	USHLI
United States Telecom Association	USTelecom
Verizon and Verizon Wireless	Verizon
Viacom Inc.	Viacom
Vonage Holdings Corp.	Vonage
Vuze, Inc.	Vuze

**STATEMENT OF
CHAIRMAN KEVIN J. MARTIN**

Re: Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications; Broadband Industry Practices, File No. EB-08-IH-1518, WC Docket No. 07-52

Would it be OK if the post office opened your mail, decided they didn't want to bother delivering it, and hid that fact by sending it back to you stamped "address unknown – return to sender"? Or would it be OK, when someone sends you a first class-stamped letter, if the post office opened it, decided that because the mail truck is full sometimes, letters to you could wait, and then hid both that they read your letters and delayed them?

Unfortunately, that is exactly what Comcast was doing with their subscribers' Internet traffic.

Last year, some broadband subscribers complained to the FCC that Comcast was blocking and delaying their Internet traffic. Our investigation, and the findings of several widely respected engineers, confirmed the complaints. Comcast was delaying subscribers' downloads and blocking their uploads. It was doing so 24/7, regardless of the amount of congestion on the network or how small the file might be. Even worse, Comcast was hiding that fact by making effected users think there was a problem with their Internet connection or the application.

Today, the Commission tells Comcast to stop, and to disclose to its subscribers how it is going to manage traffic on a going forward basis. We therefore take another important step to ensure that all consumers have unfettered access to the Internet.

Over the past decade, the Internet has had a powerful impact on the economy and on the lives of American citizens. Thanks in large part to the deregulatory approach the Commission has employed, we have witnessed the fruits of increased innovation, entrepreneurship, and competition that the Internet has helped deliver. As policymakers, we have a duty to preserve and promote the vibrant and open character of the Internet while maintaining infrastructure companies' incentive to invest in providing faster broadband to more people.

The framework we adopt today will enable us to achieve this balance, and will send a message to the industry that bad actors will be punished. This is the same framework and approach that I proposed in my April testimony before the Senate Committee on Science, Commerce, and Transportation which is attached as an Appendix to this statement.¹

We begin by affirming that the Commission can and will enforce the principle that consumers should be able to access any content and any application. This should come as no surprise. Three years ago the Commission declared that it would not hesitate to act if faced with evidence that a provider was violating this principle by blocking consumer access to content or applications. Last year the current Commission unanimously reiterated that we have "the ability to adopt and enforce the net neutrality principles ... announced in the Internet Policy Statement." Regardless of the dissenting Commissioners' intentions at the time, or their personal preference for a rulemaking now, the full Commission clearly put broadband operators on notice that we were ready, willing, and able to enforce the principles.

In fact, we've said this several times, including specifically telling Comcast. In the 2006 *Adelphia* Order, which the dissenting Commissioners voted for, the Commission clearly indicated it

¹ Written Statement of the Honorable Kevin J. Martin, Chairman, Federal Communications Commission, Before the United States Senate Committee on Commerce, Science and Transportation (April 22, 2008) (attached as an Appendix).

would act on any complaints that it received about blocking or degrading Internet content. Specifically, the Commission stated:

“If in the future evidence arises that any company is willfully blocking or degrading Internet content, affected parties may file a complaint with the Commission.”

In conducting such an analysis, we consider a variety of factors. The Commission considers whether the network management practice is intended to distinguish between legal and illegal activity. The Commission’s network principles only recognize and protect user’s access to legal content. The sharing of illegal content, such as child pornography or content that does not have the appropriate copyright, is not protected by our principles. Similarly, applications that are intended to harm the network are not protected.

The Commission also considers whether the network service provider adequately disclosed its network management practices. A hallmark of whether something is reasonable is whether an operator is willing to disclose fully and exactly what they are doing. Consumers need proper disclosure so that they can make informed decisions when purchasing broadband service.

Finally, if legal content is arbitrarily degraded or blocked, and the defense is “network management,” the broadband operator must show that its network management practice is reasonable. We will look at whether it furthers an important interest and is carefully tailored to serve that interest. Also, the practice should be disclosed to consumers so that they can make informed decisions when purchasing broadband service.

Applying this framework, we find that it was unreasonable for Comcast to discriminate against particular Internet applications, including BitTorrent.

While Comcast claimed its intent was to manage congestion, the evidence told a different story:

- Contrary to Comcast’s claims, they blocked customers who were using very little bandwidth simply because they were using a disfavored application;
- Contrary to Comcast’s claims, they did not affect other customers who were also using an extraordinary amount of bandwidth even during periods of peak network congestion as long as he wasn’t using a disfavored application;
- Contrary to Comcast’s claims, they delayed and blocked customers using a disfavored application even when there was no network congestion;
- Contrary to Comcast’s claims, the activity extended to regions much larger than where it claimed congestion occurred.

In short, they were not simply managing their network; they had arbitrarily picked an application and blocked their subscribers’ access to it.

Comcast’s lack of disclosure about its network management practices compounded the harm. Customers that experience unexpected problems with their connections may blame the connection or application. This is particularly troubling when the application is used to provide services that compete with the broadband operator’s own services. Indeed, when faced with a similar situation with Internet telephony, we took quick action to stop a telecommunications carrier from blocking competitive VoIP

providers.

Consumers demand, and deserve, better.

Our action today is not about regulating the Internet. Indeed, I have consistently opposed calls for legislation or rules to impose network neutrality. Like many other policy makers and members of Congress, I have said such legislation or rules are unnecessary, because the Commission already has the tools it needs to punish a bad actor. Instead, we take a cautious approach. Adopting broad regulations in this area could have unintended consequences that could stifle technological innovation. By acting on the complaints that we receive, we are able to deal with actual problems and avoid creating others.

That is what we do today. The specific practice Comcast was engaging in has been roundly criticized and not defended by a single other broadband provider.

If we aren't going to stop a company that is looking inside its subscribers' communications (reading the "packets" they send), blocking that communication when it uses a particular application regardless of whether there is congestion on the network, hiding what it is doing by making consumers think the problem is their own, and lying about it to the public, what would we stop? Failure to act here would have reasonably led to the conclusion that new legislation and rules are necessary.

We do not address pricing, unbundling, or other economic regulation.

We do not tell providers how to manage their networks. They might choose, for instance, to prioritize voice-over-IP calls. In analyzing whether Comcast violated federal policy when it blocked access to certain applications, we conduct a fact-specific inquiry into whether the management practice they used was reasonable. Based on many reasons, including the arbitrary nature of the blocking, the lack of relation to times of congestion or size of files, and the manner in which they hid their conduct from their subscribers, we conclude it was not.

We do not limit providers' efforts to stop congestion. We do say providers should disclose what they are doing to consumers.

We make clear that network operators can block any illegal content or applications that are intended to harm the network. The Order makes clear, for instance, that providers can block child pornography or pirated video and music. Indeed, blocking illegal content could reduce bandwidth congestion.

While concluding that the conduct at issue violates our policy was an obvious step, our action today is nevertheless critically important.

I am pleased that Comcast has reached an agreement with the company BitTorrent and has committed to implement a new "protocol-agnostic" management technique by the end of the year. And I note that we have decided not to issue a fine. But contrary to some claims, Comcast's agreement with the company BitTorrent did not obviate the need for us to act today.

First, BitTorrent was not a party to the proceeding. Consumer groups brought the complaint – not BitTorrent – and they and Comcast have not settled. As a basic issue of administrative law, we need to resolve the complaint. Comcast's agreement with a single company that uses the peer-to-peer protocol is not a substitute for addressing the consumer groups' complaint.

Second, it is important for the Commission to establish the important precedent that we will stop the bad actors. We establish a clear framework for how we will conduct our fact-intensive inquiries if

situations arise in the future. If we had declined to act, as the dissenting Commissioners would have preferred, we would have provided certainty that broadband operators can block access and hide their actions from their own customers.

Third, we need to protect consumers' access. While Comcast has said it would stop the arbitrary blocking, consumers deserve to know that the commitment is backed up by legal enforcement.

Finally, particularly given the previous obfuscation Comcast engaged in to date, it is important that we require Comcast to respond to many still-unanswered questions about their new management techniques:

- What exactly do they mean by a "protocol agnostic" management technique?
- Will there be bandwidth limits?
- If so, what will they be?
- Will they be hourly? Monthly?
- How will consumers know if they are close to a limit?
- If a consumers exceeds a limit, is his traffic slowed? Is it terminated? Is his service turned off?

The Commission needs to understand the answers. Perhaps more importantly, Comcasts' subscribers deserve to know the answers.

These unanswered questions seem inconsistent with the disclosures that even the dissenting Commissioners agree are necessary.

The dissenters argue that the Commission should have conducted an investigation to find out the answers to these questions. We did. Our Enforcement Bureau sent Comcast a letter asking the company to respond to the allegations in the complaint and Comcast replied. Moreover, the Commission sought comment on petitions by Vuze and Free Press, which asked the Commission to rule on the same conduct at issue in the complaint and received more than 6,500 comments in response. In addition, the Commission held two public hearing on the complaint and the petitions. In total, the record contains more than 60,000 pages filling 15 banker boxes.

The fact that Comcast still has not come forward and disclosed the true nature of its network management practices, despite numerous opportunities to do so, cannot justify inaction on the complaint. Given the voluminous record evidence that Comcast engaged in unreasonable network management practices, it was incumbent upon us to order Comcast to stop the practices and disclose them to us. That is precisely what we are doing today.

In sum, by applying the framework we adopt today, the Commission will remain vigilant in protecting consumers' access to content on the Internet. Subscribers should be able to go where they want, when they want, and generally use the Internet in any legal means. When providers engage in practices truly designed to manage congestion, not cripple a potential competitive threat, they should not be afraid to disclose their practices to consumers.

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**Written Statement
Of**

**The Honorable Kevin J. Martin
Chairman
Federal Communications Commission**

**Before the
United States Senate
Committee on Commerce, Science and Transportation**

April 22, 2008

APPENDIX

Good morning Chairman Inouye, Vice Chairman Stevens, and Members of the Committee. Thank you for inviting me here today to provide my thoughts on the future of the Internet and the Commission's current role on some of the issues being discussed today.

Over the past decade, the Internet has had a powerful impact on the economy and on the lives of American citizens. We have witnessed the fruits of increased innovation, entrepreneurship, and competition that this technology has helped deliver. As policymakers, any rules of the road in this area must maintain an open and dynamic Internet that will allow it to continue to be an engine of productivity and innovation that benefits all Americans.

I. FCC PRINCIPLES PROTECTING CONSUMER ACCESS TO THE INTERNET

The Commission has a duty to preserve and promote the vibrant and open character of the Internet as the telecommunications marketplace enters the broadband age. In 2005, the Commission adopted an Internet Policy Statement containing four principles. The Commission's goal was to clarify how it would evaluate broadband Internet practices on a going forward basis.

Specifically, the Commission established the following principles:

To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet,

- Consumers are entitled to access the lawful Internet content of their choice;
- Consumers are entitled to run applications and use services of their choice, subject to the needs of law enforcement;
- Consumers are entitled to connect their choice of legal devices that do not harm the network;

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- Consumers are entitled to competition among network providers, application and service providers, and content providers.

The Commission explicitly noted that these principles were subject to reasonable network management.

The Commission was seeking to protect consumers' access to the lawful online content of their choice. The intent of these principles was to foster the creation, adoption and use of broadband Internet content, applications, and services, and to ensure that consumers benefit from that innovation.

II. FCC'S ROLE IN PROTECTING CONSUMERS AND ENFORCING OUR PRINCIPLES

As the expert communications agency, it was appropriate for the Commission to adopt, and it is the Commission's role to enforce, this Internet Policy Statement.

In fact, the Supreme Court in its Brand X decision specifically recognized the Commission's ancillary authority to impose regulations as necessary to protect broadband internet access.

I do not believe any additional regulations are needed at this time. But I also believe that the Commission has a responsibility to enforce the principles that it has already adopted. Indeed, on several occasions, the entire Commission has reiterated that it has the authority and will enforce these current principles.

For example, in 2006 when I appeared before this Committee, then Chairman Stevens asked me whether the Commission had the existing authority to take action if a problem developed. And I

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responded that the Commission had authority under Title I to enforce consumers' access to the internet.

Moreover, almost exactly one year ago, the Republican Majority of the Commission, with the Democrat Commissioners concurring, committed to enforcing our existing principles and the policy statement. Specifically, in April 2007, the Commission expressly stated:

The Commission, under Title I of the Communications Act, has the ability to adopt and enforce the net neutrality principles it announced in the Internet Policy Statement. The Supreme Court reaffirmed that the Commission "has jurisdiction to impose additional regulatory obligations under its Title I ancillary jurisdiction to regulate interstate and foreign communications." Indeed, the Supreme Court specifically recognized the Commission's ancillary jurisdiction to impose regulatory obligations on broadband Internet access providers.¹

Finally, the Commission has already taken enforcement action in response to other complaints. In the Madison River complaint, the Commission ordered a telephone company to stop blocking VoIP calls.

Contrary to some public claims about Commission's approach generally, for the Commission to take enforcement action against a telephone company for blocking and degrading a particular application but refuse to pursue enforcement action against a cable company blocking or degrading a particular application would unfairly favor the cable industry.

I believe that the Commission must remain vigilant in protecting consumers' access to content on the internet. Thus, it is critically important that the Commission take seriously and respond to complaints that are filed about arbitrary limits on broadband access and potential violations of our principles. Indeed, I have publicly stated that the Commission stands ready to enforce this policy statement and protect consumers' access to the internet.

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III. FRAMEWORK FOR EVALUATING REASONABLE NETWORK MANAGEMENT COMPLAINTS

The Commission should address issues of appropriate network management using a consistent framework. There are several factors that I believe the Commission should use when analyzing complaints and concerns about network management practices by broadband operators.

First, the Commission should consider whether the network management practices are intended to distinguish between legal and illegal activity. The Commission's network principles only recognize and protect user's access to legal content. The sharing of illegal content, such as child pornography or content that does not have the appropriate copyright, is not protected by our principles. Similarly, applications that are intended to harm the network are not protected.

Second, the Commission should consider whether the network service provider adequately disclosed its network management practices. A hallmark of whether something is reasonable is whether an operator is willing to disclose fully and exactly what they are doing.

Adequate disclosure of the particular traffic management tools and techniques -- not only to consumers but also to the designers of various applications and entrepreneurs -- is critical.

Application designers need to understand what will and will not work on a particular network. For example, does an application developer know that the operator may actually insert reset packets during a session masking the network operator's identity?

¹ *Broadband Industry Practices*, WC Docket No. 07-52, Notice of Inquiry, 22 FCC Rcd 7894, 7896, para. 4 (2007) (internal footnotes omitted).

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Consumers must be fully informed about the exact nature of the service they are purchasing and any potential limitations associated with that service. For example, has the consumer been informed that certain applications used to watch video will not work properly when there is high congestion?

Particularly as broadband providers begin providing more complex tiers of service, it's critical to make sure that consumers understand whether broadband network operators are able to deliver the speeds of service that they are selling. For example, if Internet access is sold as an unlimited service, do consumers understand that if they use too much of it they can still be cut-off?

Finally, the Commission should consider whether the network management technique arbitrarily blocks or degrades a particular application. Is the network management practice selectively identifying particular applications or content for differential treatment? If so, I believe that we should evaluate the practices with heightened scrutiny, with the network operator bearing the burden of demonstrating that the particular practice furthered an important interest, and that it was narrowly tailored to serve that interest.

Such an approach would not mean that any action taken against a particular application would automatically be a violation. Rather, it would trigger a more searching review of both the particular concern and whether that network management solution was tailored to resolve the particular harm identified to the network in as narrow a manner as possible.

In a manner similar to the way in which restrictions on speech are analyzed, network management solutions would need to further a compelling or at least an important/legitimate interest and would need to be tailored to fit the exact interest. Such practices should not be overly broad in their application so that they become over or under inclusive. For example, if the concern is about stopping certain illegal

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content, a network provider should not block a particular application to all users if that application transmits both legal and illegal content.

Such an analysis would recognize the importance of legitimate network management techniques while giving the Commission the framework to analyze carriers actions on a case-by-case basis. As we move into an era in which network operators are taking particularized actions against individual applications and content, the Commission should evaluate such practices under sufficient scrutiny to ensure that whatever actions the operators are taking are actually furthering a legitimate purpose and are narrowly tailored to serving that legitimate purpose.

IV. PENDING COMCAST COMPLAINT

Consumers have alleged that certain operators, and specifically Comcast, are blocking and/or degrading consumers' access to the Internet by distinguishing between applications.

The Commission has heard from several engineers and technical experts who have raised questions regarding the network management techniques used by Comcast for peer-to-peer traffic.

The Commission is still investigating these complaints and we have not yet determined whether the actions violated our principles protecting consumer access to the Internet. However, Comcast appears to have utilized Internet equipment from Sandvine or something similar that is widely known to be a relatively inexpensive, blunt means to reduce peer-to-peer traffic by blocking certain traffic completely. In contrast, more modern equipment can be finely tuned to slow traffic to certain speeds based on various levels of congestion.

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Specifically, this equipment (1) blocks certain attempts by subscribers to upload information using particular legal peer-to-peer applications by pretending to be the subscriber's computer and falsifying a "reset" packet to end the communication, and (2) degrades the corresponding attempts to download information using the same peer-to-peer applications.

Based on the testimony we have received thus far, I think it is important to clarify a few points.

Contrary to some claims, it does not appear that cable modem subscribers had the ability to do anything they wanted on the Internet. Specifically, based on the testimony we have received thus far, some users were not able to upload anything they wanted and were unable to fully use certain file sharing software from peer-to-peer networks.

Contrary to some claims, it does not appear this network management technique is "content agnostic." Indeed, Comcast has publicly stated that it will migrate to a "protocol" (content) agnostic approach to traffic management in the future, and thus conceded that the techniques currently in use are not "content agnostic."

Contrary to some claims, it does not appear that this technique was used only to occasionally delay traffic at particular nodes suffering from network congestion at that time. Indeed, based on the testimony we have received thus far, this equipment is typically deployed over a wider geographic or system area and would therefore have impacted numerous nodes within a system simultaneously. Moreover, the equipment apparently used does not appear to have the ability to know when an individual cable segment is congested. It appears that this equipment blocks the uploads of at least a large portion of subscribers in that part of the network, regardless of the actual levels of congestion at that particular time.

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Finally, contrary to some claims, it is not clear when they will actually stop using their current approach. They claim that they will deploy this new solution by the end of the year but it is unclear whether they will be finished deploying their solution or just starting that migration. Indeed the question is not when they will begin using a new approach but if and when they are committing to stop using the old one.

V. NEXT STEPS

As the Commission continues its investigation into the complaints before it, the most important and first step that we can take in fulfilling our responsibility is to make sure that we are fully informed. At the very least, we need to obtain greater information to more fully understand what is happening and what impact operators' actions are having so that we may better evaluate the reasonableness of any network management practices at issue.

**STATEMENT OF
COMMISSIONER MICHAEL J. COPPS**

Re: *Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications*, File No. EB-08-IH-1518; *Broadband Industry Practices, Petition of Free Press et al. for Declaratory Ruling that Degrading an Internet Application Violates the FCC's Internet Policy Statement and Does Not Meet an Exception for "Reasonable Network Management,"* WC Docket No. 07-52

This is a landmark decision for the FCC—a meaningful stride forward on the road to guaranteed openness of the Internet. It's taken a while for us to get here, but that doesn't detract from the historic importance of what the Commission does today. We recognize that protecting Internet openness is like protecting the Internet's immune system, safeguarding it from bugs and infections that could slow its circulation, make it sick, maybe even kill it.

Let's be clear about what today's *Order* does and does not accomplish. We *do* recognize that unreasonably impeding the performance of an Internet application (like peer-to-peer file sharing)—and not just outright blocking a particular website or program—violates the FCC's Internet policies. We *do* require that Internet providers inform their customers when they make important technical decisions that change how the Internet works. And we *do* give consumers who feel their Internet experience is being unreasonably interfered with a right to seek help at the Commission. We do *not*, however, prohibit carriers from reasonably managing their networks. And we do *not* prevent engineers—either now or in the future—from coming up with new and better ways to serve their customers.

In short, today's decision strikes a careful balance. The story of how we got here is instructive. Back in 2003, before most people ever heard the words "network neutrality," I gave a speech suggesting that the Internet as we know it could be dying. Some thought it was perhaps something of a controversial claim at the time. But it was premised on my belief that if a few large companies controlled the on-ramp to the Internet, they could distort the development of technology, opportunities for entrepreneurs and the choices available to consumers. I predicted that technologies to allow such interference were already appearing, with more to come. And I said we should act then to guarantee the openness of the Net. At that time, the Commission was more interested in re-categorizing telecommunications services as information services and eliminating many of the social and economic responsibilities of broadband service providers. I urged my colleagues to at least adopt an Internet Policy Statement that contained the basic rights of Internet end-users to access lawful content, run applications and services, connect devices to the network and enjoy the benefits of competition. They did that and it was a good step forward, for sure—but the proof was always going to be in the pudding.

Network operators assured us nothing untoward was going on, but it wasn't long before we heard rumblings that maybe things weren't running so openly and smoothly. Examples of alleged interference were cited. Then, in November 2007, leading public interest organizations and advocates filed with the Commission a specific Complaint and a Petition for a Declaratory Ruling. They alleged that one company, Comcast, was degrading peer-to-peer protocols that consumers were utilizing to share large files such as movies and television programs.

The FCC was suddenly at a crossroads. Down one path was a Commission committed to preserve and honor the openness of the Internet by breathing life into our Internet Policy Statement. Down the other road was a Commission that, while celebrating the Internet, refused to apply its principles and sat idly by while broadband providers amassed the power and technical ability to dictate where we can go and what we can do on the Internet. Today we choose the open road.

We began by taking the allegations and our responsibility to foster an open Internet seriously. Then we took the time to gather, analyze and assess the evidence. We heard from the leading engineers

and experts in the field and received 6,500 comments from a broad array of interested parties. The Commission ventured beyond the Beltway and conducted two *en banc* hearings that included numerous expert witnesses and extensive opportunity for public testimony. This process allowed us to better understand what in fact the case involved and who was impacted by the practices in question. We did the requisite analysis and a majority today moves forward.

Here, Comcast deployed equipment using deep packet inspection to identify peer-to-peer uploads. Comcast determined when to send reset packets to terminate a user's connection in order to manage its network. The practice limited consumers' ability to access the lawful Internet content of their choice. And, as the Commission correctly concludes, it was discriminatory and not carefully tailored to address the company's concerns about network congestion. (In fact, it prevented peer-to-peer customers from making uploads regardless of whether there was network congestion at that time.) Further, Comcast's level of disclosure to its customers was clearly inadequate. As the Order finds, no one could reasonably have known, prior to filing of the Complaint, that peer-to-peer protocols were being discriminated against on Comcast's network.

The Communications Act, as amended, gives the Commission ample authority to act on this Complaint, and today's Order sets out in detail the legal framework for this authority. I would also point out that the Commission is free to address these issues through either adjudication or a rulemaking. Surely no one can credibly claim that this process has not provided the parties ample opportunity to present their cases.

Let me emphasize again the cautious and well-considered approach the majority takes in this proceeding about the future of the Internet. We recognize that network architectures and network practices are fast-changing and complex. We understand that Comcast and all the other Internet service providers have real network management challenges to overcome. And we appreciate that establishing a rigid rule prohibiting all discriminatory network practices would go too far. There are network management practices that most experts agree are reasonable and that are important to the development of new technologies and Internet services. I also emphasize that discrimination is not *per se* wrong. It is **unreasonable** discrimination that is wrong. Unreasonable discrimination flies in the face of the Internet's genius and threatens the most open, dynamic and opportunity-creating technology devised in modern times.

We know that the technological capacity to impede the openness of the Internet already exists. It's a slam dunk that as technology evolves, we will see new tools coming online that could be used for purposes of unreasonable discrimination. We also understand that some may see commercial opportunity in applying such technological impediments. History tells us that when technical capacity and commercial incentive exist side-by-side, it's a good bet that someone will try to use them to their own advantage. I'm not making a moral judgment here; it's just the stuff of history.

So the trick is to find the fine line between reasonable management techniques that allow the Net to flourish and unreasonable practices that distort and deny its potential. I believe, and I have long advocated, a case-by-case analysis of the facts in particular cases brought before the Commission, based on a clear policy of "reasonable network management only." Today's Order follows this path. The standard set forth in our decision is a careful balance that establishes a high threshold for demonstrating that a discriminatory network management practice is reasonable, while recognizing that there are times when such practices may indeed be both reasonable and necessary. In doing this, we don't hamstring technology. But at the same time we say to the public that there is a place, the FCC, where you can come to have allegations of network neutrality violations heard and acted upon.

My friend and colleague Commissioner McDowell published a thoughtful op-ed on this topic in the *Washington Post* earlier this week. We may respectfully disagree on some of it, but he was certainly correct that "regardless of what the ruling stipulates, the issue of what constitutes appropriate Internet

network management will be debated for some time.” The question I have, though, is the same as it was five years ago. Will the Internet evolve out in the open, via standards groups, and with consumers empowered to utilize the tremendous wonders of the dynamic Internet, and with all stakeholders having input into how the future of this technology will evolve? Or will network operators bring the Internet under their control for their own purposes—which may not always be the public’s purposes? Will network operators deal with legitimate network problems in a way that is sensitive to effects on the rest of the Internet? Or will they be permitted to maximize their own interests? Until the FCC opened this inquiry, important decisions about the future of the Internet were being made in a black box where the American people had precious little opportunity to peek. After today they will hopefully be able to see things in a little brighter light.

It is brighter because we have made a strong statement—based upon the four principles and rooted in our authority under the Communications Act—that network operators must not manage traffic in an unreasonably discriminatory manner. As a practical matter, we are moving closer to taking a step I have long called for: to expressly incorporate a fifth principle of non-discrimination into our existing Internet Policy Statement.

While today’s *Order* represents important movement forward, it is not a full substitute for the fifth principle that I believe we must adopt. A clearly-stated commitment of non-discrimination would make clear that the Commission is not having a one-night stand with net neutrality, but an affair of the heart and a commitment for life. That’s what something so precious as this technology deserves. A fifth principle will provide the needed reminder to all—long after the details of this case become blurry history—that the Commission’s policy of network openness is ongoing and its remedies are always available. It’s a pretty safe bet there will be other complaints about non-discrimination coming to the Commission. A fifth principle would reassure those bringing such complaints that they will receive the same kind of Commission attention that the Comcast complainants received. A fifth principle should also, in my opinion, apply to wireless as well as to wireline networks. In sum, formal Commission adoption of a fifth principle of Internet openness would proclaim and sustain Internet users’ right to all the freedom that network openness provides.

Mr. Chairman, thank you for your leadership on this matter. Thanks to the Bureau and to our Office of General Counsel for their good diligence, thanks to my colleagues for working so hard on this, and thanks to the many interested stakeholders who provided information to us. I look forward to working with my colleagues, with the many Members of Congress who have expressed interest in this issue, and—most of all—with the users and innovators of the Net as together we work to unlock its vast potential.

**STATEMENT OF
COMMISSIONER JONATHAN S. ADELSTEIN**

Re: *Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications, Broadband Industry Practices; Petition of Free Press et al. for Declaratory Ruling that Degrading an Internet Application Violates the FCC's Internet Policy Statement and Does Not Meet an Exception for "Reasonable Network Management"*, Memorandum Opinion and Order, File No. EB-08-IH-1518, WC Docket No. 07-52

Three years ago, the Commission adopted its *Internet Policy Statement*,¹ articulating enduring principles to encourage broadband deployment and preserve the open and interconnected nature of the Internet. Today, I am pleased that we build on that critical step with this landmark decision to enforce Federal law and the principles behind the *Internet Policy Statement*. I am confident that today's decision will reassure consumers that they will continue to enjoy freedom on the Internet.

Consumers have come to expect — and will continue to demand — the open and neutral character that has always been the hallmark of the Internet. Broadband is redefining many aspects of the way we live. In an age when traditional media markets are dominated by a handful of giant conglomerates, there is optimism about the rise of broadband as an outlet for creative expression and democracy. The Internet can restore decentralized and entrepreneurial voices to the media landscape that are reflective of the best aspects of the American tradition. This Order is a vital step towards maintaining the potential and promise that the Internet holds for enriching our economic, cultural and social well-being.

This decision is seminal because, for the first time, we interpret the specific provisions of the *Internet Policy Statement* and follow through on our repeated promises to act on allegations of misconduct.² At the same time, it is also a narrow decision, grounded firmly in the facts of the case before us. To that point, rarely has this Commission conducted such intensive fact-finding. We have witnessed nine months of filings and two hearings to glean testimony from providers, legal experts, engineers, entrepreneurs, scholars, consumer advocates, and many others. We have heard from thousands of individual consumers who have filed comments with us.

¹ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; 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; Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, CC Docket Nos. 02-33, 01-337, 98-10, 95-20, GN Docket No. 00-185, CS Docket No. 02-52, Policy Statement, 20 FCC Rcd 14986 (2005) (*Internet Policy Statement*).

² *See, e.g., Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities; Universal Service Obligations of Broadband Providers; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; 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; Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. § 160(c) with regard to Broadband Services Provided via Fiber to the Premises; Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided via Fiber to the Premises; Consumer Protection in the Broadband Era*, WC Docket No. 04-242, 05-271, CC Docket Nos. 95-20, 98-10, 01-337, 02-33, 20 FCC Rcd 14853 (2005) (*Wireline Broadband Internet Access Order*).

A careful review of the record before us leads inexorably to the conclusion that there has been a violation of Federal Internet policy. The actions in question had the clear effect of impeding consumers' ability to use particular file sharing applications. This Order takes the next step of determining whether this approach fits within the *Internet Policy Statement's* provision for "reasonable network management," and rightly concludes that it is not sufficiently targeted to fit that exception.

In reaching this conclusion, I appreciate the challenges that providers face in developing reasonable network management policies. Through meetings with many providers, I have heard concern about the impact of peer-to-peer applications on their networks. The Order acknowledges that broadband providers will need to continue to manage their networks. It also acknowledges that different approaches may be appropriate for different technologies.

Yet, the record here shows Comcast's approach to be over-inclusive and ill targeted to the purported goal.³ I found particularly compelling the wide, even if not unanimous, consensus among network engineers that these actions strayed from accepted Internet standards and norms. Moreover, the problem was compounded by Comcast's lack of adequate disclosure policies and the inaccurate response to initial public questions. Considering all the factors, and balancing the competing goals set out in the *Internet Policy Statement*, the Commission appropriately finds the conduct to be unreasonable.

Going forward, this decision sets out a marker, making clear to providers that discriminatory network management practices must be carefully tailored and not unreasonable. As providers craft their network management practices, the Order sends a strong signal about the importance of engaging industry standard setting bodies, such as the Internet Engineering Task Force, the Internet Architecture Board, and the Internet Society, which offer the best forum for resolving network management issues. It is certainly preferable for facilities-based providers and applications providers to work collaboratively, in an open and transparent manner, without the need for governmental intervention. To the extent that engineers can work out these issues among themselves, it obviates the need for Commission action. I am pleased such an effort is now underway among these engineering bodies to tackle the issues raised by peer-to-peer traffic, and that Comcast is an active participant in those discussions. The Order makes clear, though, that the Commission will not abdicate its role in preserving and promoting the open and interconnected nature of the Internet. That open platform has been the basis for unprecedented innovation and I am confident that the approach we take today will, in the end, lead to the greatest opportunities for continued innovation.

We have heard concerns about the Commission's legal authority to act in this case and about the procedural choice of a legal vehicle. Having carefully reviewed the legal arguments, I conclude that the Commission is on solid footing. Our analysis starts with the strong finding of the Supreme Court which, in upholding the FCC's very decision to adopt a looser regulatory framework for broadband Internet access, observed that "the Commission has jurisdiction to impose additional obligations on [information service providers] under its Title I ancillary jurisdiction to regulate interstate and foreign communications"⁴ Following this direction from the Supreme Court, the Order sets out the Commission's legal authority under Title I of the Act, explaining that preventing unreasonable network discrimination directly furthers the goal of making broadband Internet access both "rapid" and "efficient."

The Order also includes a detailed and well-reasoned analysis of our considerable additional legal authority for this decision. Notably, the Order is firmly based on the Congressional policies set forth in Section 230 of the Act. Section 230 states that it is the "policy of the United States" to "promote the

³ I note that while the Order describes several alternatives that may be better tailored to meet Comcast's purported goal, it stops short of specifically endorsing any particular approach. In this respect, I withhold judgment on the impact of such practices on consumers.

⁴ *National Cable & Telecomms. Ass'n v. Brand X Internet Services*, 545 U.S. 967, 996 (2005).

continued development of the Internet” and to “encourage the development of technologies which maximize user control over what information is received by individuals . . . who use the Internet. . . .”⁵ Indeed, the Commission directly advanced these very statutory goals in adopting the *Internet Policy Statement* and confirming that “consumers are entitled to access the lawful Internet content of their choice” and to “run applications and use services of their choice.” Were there any doubt, the Order also finds that resolving this complaint is ancillary to our authority under Sections 201, 256, 257, 601, and 706 of the Act.

As the Order correctly concludes, taking action against discriminatory practices advances federal law by encouraging the efficiency of the public Internet, ensuring reasonable charges, and promoting competition, pursuant to Section 1. It encourages the deployment of advanced services, pursuant to Section 706. It ensures the reasonableness of charges incurred by preventing providers from shifting costs to customers who purchase DSL as a common carrier service, pursuant to Section 201. It promotes the flow of information across public telecommunications networks, pursuant to Section 256. It eliminates barriers to entry for entrepreneurs, pursuant to Section 257. And, it improves individuals’ ability to access a diverse array of content over the Internet, pursuant to Sections 257 and 601.

Having determined that the Commission has more than adequate statutory authority to address this issue, we have clear discretion about whether to act through rulemaking or adjudication.⁶ Recent Commission practices, and my clear preference, would have been to address this issue through the adoption of rules. Although I have urged the Commission to adopt rules to address concerns about network discrimination, the Commission’s decision to resolve this case through adjudication rests on firm legal ground. It is consistent with the Commission’s long history in which we have often issued major policy decisions in the process of adjudications, as have other Federal agencies.

More recently, the Commission has issued repeated statements on this issue. For example, in the *Wireline Broadband Internet Access Order* the Commission made clear that “[s]hould we see evidence that providers of telecommunications for Internet access of IP-enabled services are violating these principles, we will not hesitate to address that conduct.”⁷ Similarly, the Commission in the *Comcast-Adelphia-Time Warner Merger Order* specifically warned the applicants — including the provider subject to this action — that “[i]f in the future evidence arises that any company is willfully blocking or degrading Internet content, affected parties may file a complaint with the Commission.”⁸

In many ways, today’s approach should ameliorate the concerns of critics who have argued that protecting Internet freedom will lead to overbroad mandates that cannot anticipate changes in technology. First, it makes clear that the protections of the *Internet Policy Statement* extend only to lawful content; hence, this Order does nothing to prevent providers from, for example, restricting access to child

⁵ 47 U.S.C. § 230(b)(1), (3).

⁶ See *SEC v. Chenery Corp.*, 332 U.S. 194, 203 (1947) (*Chenery*); *NLRB v. Bell Aerospace Co.*, 416 U.S. 267, 292 (1974).

⁷ *Wireline Broadband Internet Access Order*, 20 FCC Rcd at 14907, para. 96.

⁸ *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, Adelphia Communications Corporation, (and Subsidiaries, Debtors-In-Possession), Assignors and Transferors, to Comcast Corporation (Subsidiaries), Assignees and Transferees, Comcast Corporation, Transferor, to Time Warner Inc., Transferee, Time Warner Inc., Transferor, to Comcast Corporation, Transferee*, MB Docket No. 05-192, Memorandum Opinion and Order, 21 FCC Rcd 8203, 8298, para. 220 (2006) (*Adelphia/Time Warner/Comcast Order*). See also *Broadband Industry Practices*, WC Docket No. 07-52, Notice of Inquiry, 22 FCC Rcd 7894, 7896, para. 4 (2007) (*Broadband Industry Practices Notice*) (concluding that “[t]he Commission, under Title I of the Communications Act, has the ability to adopt and enforce the net neutrality principles it announced in the Internet Policy Statement”).

pornography or content that violates copyright law. Second, here we limit our findings to the narrow issues before us. Third, we choose a path that preserves the Commission's flexibility to consider alternative approaches and technologies. Even many opponents of legislation and rules in this area have supported a case-by-case approach like the one adopted today. Finally, through this adjudication, we have followed a thorough and open process: seeking comment from all parties, conducting open hearings, gathering information and analysis from all sides. Although I support taking this action, I do appreciate my colleagues' willingness to craft this item in a way that preserves the Commission's ability to adopt rules at a later date, which was critical to my support of the item.

It is apparent that some parties want the Commission to have no role at all. Such an approach, however, is not consistent with Federal law and Internet policy and would abdicate our critical role in fulfilling Congress' objectives. As this Order acknowledges, we must make it a priority to ensure that the Internet remains open and that the broadband market remains competitive.

For all these reasons, I approve this Order.

Finally, I would like to thank the Office of General Counsel and the staffs of our Enforcement and Wireline Competition Bureaus for their hard work in developing this case and bolstering our legal analysis. As the process went on, this Order improved greatly. And I appreciate the input of the many citizens who attended and participated in our public hearings on this issue. The level of participation was remarkable and fitting for an issue of this importance.

**STATEMENT OF
COMMISSIONER DEBORAH TAYLOR TATE**

Re: *Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications; Broadband Industry Practices, Memorandum Opinion and Order* (WC Docket No. 07-52)

Today's Order reiterates the fact that "reasonable minds truly can differ." I viewed this proceeding as a normal enforcement review, regarding a particular complaint within the confines of the specific circumstances presented, using a "case by case" analysis; not the pronouncement of a "monumental decision."

My general philosophy that guides my decision-making is that prior to government pursuing regulatory remedies in the name of the public interest, we should first carefully consider what the private sector is doing to enhance, expand and enrich consumers' options, and proceed with caution unless and until there is a clear, legal basis for government intrusion into private business — or in this case, engineering — decisions. Therefore, I plan to associate myself and this statement with the procedural and substantive legal arguments of Commissioner Robert McDowell. Presently, we are benefiting from over \$100 billion in broadband investment, robust industry competition and cooperation and unprecedented consumer options in this dynamic multi-platform marketplace. Thus, regulatory action in this instance should yield.

However, while the Commission should refrain from regulating the digital marketplace, we do have an important function in protecting the consumer interest. In fact, rather than concentrating on 10% of the traffic by 5% of the heaviest bandwidth users, we should be ensuring that the 95% of ordinary subscribers are not negatively impacted as they use their internet for their child's homework, shopping, getting news, sending emails and watching TV and YouTube. Rather than assuming the role of "world wide web enforcer," perhaps the best way for the FCC to fulfill our duties under *Internet Policy Statement* would be to assume the role of mediator or arbitrator, helping to facilitate agreements among the various sectors of the broadband internet industry to create an experience that benefits all users, rather than issuing broad mandates to protect the few.

Most significantly in the present case, it is important to note that the FCC played a key role in helping to resolve the Comcast-BitTorrent controversy we are considering today.

In this particular case, the Commission undertook numerous efforts to fulfill that role, including the initiation of two public proceedings, and the holding of well-attended and educational public hearings at Stanford, Harvard, and Carnegie Mellon Universities.

In the wake of these efforts, the two parties announced on March 27 an agreement to collaborate in managing web traffic and to work together to address network management and content distribution. First, Comcast announced that it will migrate by year-end 2008 to a capacity management technique that is protocol agnostic. Second, the two companies also agreed to work with other ISPs, technology companies, and the Internet Engineering Task Force to explore and develop new distribution technologies for delivery of media content. It is also important to note that BitTorrent acknowledged the need of ISP's to manage their networks during times of peak congestion.

Outside of the agreement, other progress is being made. This spring, Comcast and Pando Networks, Inc. announced plans to lead an industry-wide effort to develop a P2P Users' Bill of Rights. This effort is now seeing implementation under the Distributed Computing Industry Association, which is focused on developing best practices to ensure an optimum online consumer experience. Additionally, the P4P Working Group, which includes Comcast, other major U.S. broadband providers, and applications companies, continues to work together and participate in trials focused on maximizing consumers'

broadband experience.

Clearly these efforts in mitigation of the underlying issues of concern were facilitated by the Commission's focus and attention. As a trained mediator, I believe that resolving matters in this fashion is the best way to serve the public interest and thus ensure an open internet for *all* consumers, not just the petitioning few.

I also must stress the importance of disclosure and transparency for all customers of internet service providers. Throughout our public hearings concerns were raised regarding the lack of information being provided by ISPs to their customers. It seems that there was a "communication gap" between Comcast and its consumers in regard to how subscribers received information on network management and what their service expectations were. Clearly, the consumer disclosure documents that Comcast used were not adequate notification of its practices. As someone who has spent most of my career looking out for the best interests of the consumer, this concerns me. With the explosive growth enjoyed by broadband internet providers and its resulting increase in the competitive landscape, consumers must be able to both know and understand what they are getting and paying for.

ISP's must do better. Comcast's recent revision of its user policy and the posting of network management "frequently asked questions" on its website illustrate their recognition of the need for improvement. The company is now alerting customers that it may, on a limited basis, temporarily delay certain P2P traffic when that traffic has, or is projected to have, an adverse effect on other customers' use of the service. Comcast's efforts to improve its disclosures is another positive result emanating from the Commission's oversight role, further mitigating the need for additional government action. Other arms of government are also spotlighting consumer disclosure from the FTC to Congress so there is great impetus for even more improvement by the private sector without a government mandate.

The FCC has an important function in protecting the consumer, and we must remain vigilant to ensure that the private sector is responsible to their concerns. We can use our role as public servants, educators and the "bully pulpit" to shine a light on companies that fall short and hold their feet to the fire and prompt industry to action. With corporate revenues rising and customer satisfaction scores falling, companies offering broadband service must make disclosure and transparency a priority.

Lastly, but of immense importance to thousands of creators, researchers, content producers and artists across this entire country, I would like to address the fact that this order provides minimal substantive discussion about the role network managers have in filtering and guarding their platforms against the growing problem of illegal content distribution, and the potentially adverse effect regulatory prescription can have on stemming its growth.

As my colleagues on the Commission know, a long-time concern of mine has been fighting the proliferation of online child pornography and unauthorized illegal downloads of creative content. In fact, next week I will be traveling to Tennessee to attend the launch of a partnership between Connected Nation and iKeepSafe. Connected Nation provides computers to children across the state of Tennessee and iKeepSafe provides DVDs and other educational materials to teach children about the risks associated with internet use and how they can protect themselves online — yet another example of a positive market and industry driven public-private partnership to address a very real problem: child online safety.

While I may be the only Commissioner raising these concerns, certainly many Attorneys General, the National Coalition for Missing and Exploited Children and even leaders in other countries share these concerns. If the Commission interferes with the ISPs ability to manage their networks by imposing a strict legal standard, will such regulation have a freezing effect on the fight against illegal content? By requiring ISPs to "carefully tailor" their network management practices, I am concerned that we will potentially be stripping them of the important tools they use — and we need — to purge their platforms of illegal content which negatively impacts every type of intellectual property, from software to

pharmaceuticals to of course, songwriters and motion pictures.

Further, as some in the content industry have rightly highlighted, all four principles enumerated in the FCC's Internet Policy Statement relate *only* to the protection of lawful content. None of these principles protects unlawful conduct. Thus "any remedy that inadvertently forecloses ISPs from pursuing and denying access to unlawful content would be inconsistent with the clear line between lawful and unlawful content drawn in the FCC's policy."¹ Most parents would surely agree. The main point is that even if the Commission *does not intend* to frustrate network managers' attempts to guard against illegal content, the mandate of regulation in this order can potentially reverse many of the significant strides the private sector has made and continues to make to address this critically important issue. With the U.S. Chamber of Commerce reporting that piracy negatively costs the U.S. economy up to \$250 billion a year, this hardly seems like the right path to follow.

Through innovative technology, unique public private partnerships and collaborative solutions — like another recent agreement between the National Center for Missing and Exploited Children and the cable industry to identify, block and ultimately report illegal activity to law enforcement — network managers are making great strides *without* regulatory interference from the government.

Finally, it is important to highlight that effective network management plays a key role in protecting customers from spam, phishing, computer viruses and worms, Trojan horses, and denial of service attacks. If we tie the hands of network managers, there is a good chance this type of malware could neither be identified nor contained before affecting users. If we are truly looking to improve the consumer online experience, avoid network congestion and protect privacy, it does not seem prudent to block internet service providers' ability to purge their platforms of these technological plagues.

I applaud the Chairman for focusing the Commission's and the public's attention on this issue, and for using it as a vehicle for hearings around the country over the past year. In addition to educating ourselves, I believe these forums have served an important role in outreach and education of the public as they navigate this ever-changing technological revolution. Through these efforts, the Commission has been able to shine a light on particular practices and consumer concerns, and the private sector has responded. Had we continued down our generally deregulatory path regarding information services, we would have not taken the more interventionist approach adopted in this item, which is unnecessary given the industry-wide actions already underway, as well as the specific, ameliorating steps taken by the company to address the allegations in the complaint at hand. Therefore, I respectfully dissent.

¹ Comments of the Recording Industry Association of America, In the Matter of the Petition of Vuze, Inc. for Rulemaking to Establish Rules Governing Network Management Practices By Broadband Network Operators, p8.

**DISSENTING STATEMENT OF
COMMISSIONER ROBERT M. McDOWELL**

RE: *Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications; Broadband Industry Practices, Petition of Free Press et al. for Declaratory Ruling that Degrading an Internet Application Violates the FCC's Internet Policy Statement and Does Not Meet an Exception for "Reasonable Network Management,"* File No. EB-08-IH-1518, WC Docket No. 07-52

First, I'd like to thank the public interest groups who brought this matter to our attention for doing so. I'd also like to thank the Chairman for having us all focus on this case. Shining a spotlight on these issues has helped raise awareness and spark a debate which has been constructive, at times.

All of us can agree on a few things. The Internet should remain open and free. Our policies, and the policies of all governments everywhere, should promote such freedom. We can also agree that network operators could do a better job of educating consumers regarding the limitations of their networks and how those networks need to be managed to keep the Internet functioning. We have seen a lot of improvement in that area in the past couple of months due, in part, to this proceeding.

I also hope we can agree that applications providers could do a better job of designing software that works more efficiently on networks that were designed and built sometimes decades ago. The providers of certain peer-to-peer (P2P) applications, for example, could do a better job of making consumers aware that their applications require consumers' computers to work 24 by 7 in ways that can tie up their computing power and reduce broadband speeds for themselves and their neighbors.

I think we can also agree — and in this I concur in Commissioner Tate's statement — that it is tremendously important for network operators to be authorized to guard against unlawful Internet content such as child pornography, for the Commission to act as a mediator rather than a regulator when appropriate, and for network operators to adequately disclose their terms of service.

In that spirit, I am concerned that we are witnessing a deepening division between some in the application industry and some network operators. Both sectors are indispensable to our burgeoning Internet economy. History teaches us that we are all better off if we reject the rhetoric of the extremes on both sides and resolve technological disputes through collaboration and negotiation. Looking back through the long lens of time, it is obvious that the Internet is the greatest free-market success story of all time precisely because conflicts were resolved in this manner. Continued escalation of rhetoric serves no one well, least of all American consumers.

With those introductory remarks, it is time to move on to decide the matter at hand. Independent administrative agencies are interesting creatures. We are not part of the executive, legislative or judicial branches of government, yet we have quasi-executive, -legislative and -judicial powers. It is primarily our quasi-judicial powers we are exercising today. Accordingly, we are compelled by statute to examine the procedural issues before us as well as to weigh the facts against the current state of the law. Commissioner Tate and I received the current version of the order at 7 p.m. last night, with about half of its content added or modified. As a result, even after my office reviewed this new draft into the wee hours of the morning, I can only render a partial analysis.

As a procedural matter, what we have before us today is an order regarding a pleading that was filed as a "formal complaint." Our rules mandate that formal complaints apply only to common carriers.¹

¹ See 47 USC § 208 ("...complaining of anything done or omitted to be done by any common carrier subject to this Act . . ."); 47 C.F.R. § 1.711.

As the Supreme Court held in the *Brand X* case,² and as the Commission has held on numerous occasions since, cable modem service is not common carriage but, rather, an information service under Title I of the Act.³

If the complaint survives this first step, we should next look to see if we have jurisdiction to enforce our rules. I agree that we do have jurisdiction, in general, over these areas.⁴ However, we do not have any rules governing Internet network management to enforce. Since the Supreme Court's decision in *Brand X*, we have been busy taking broadband services out of the common carriage realm of Title II and classifying them as largely *unregulated* Title I information services.⁵ It does not take a law degree to understand that once we did that, the rules of Title II would no longer apply to broadband services.

Furthermore, the Commission did not intend for the Internet Policy Statement to serve as enforceable rules but, rather, as a statement of general policy guidelines.⁶ Based on their remarks at the time, at least two of my colleagues in the majority agreed.⁷ Indeed, in the *Wireline Broadband Order*, released the same day, the Commission clearly contemplated initiating a rulemaking in response to

² *National Cable & Telecoms. Ass'n v. Brand X Internet Services*, 545 U.S. 967 (2005) (*Brand X*).

³ *Id.*, 545 U.S. at 968. I also note that the format and content of the complaint were deficient in a number of ways, including a failure to cite to any sections "of the Communications Act and/or order and/or regulation of the Commission alleged to have been violated." See 47 C.F.R. § 1.721(a)(4). Additionally, our rules require dismissal in instances such as this one where a "document purporting to be a formal complaint . . . does not state a cause of action under the Communications Act." 47 C.F.R. § 1.728(a). The complaint does not state a cause of action under the Communications Act because the Commission does not, in this case, have the authority to act in the absence of relevant rules.

⁴ See *Brand X*, 545 U.S. at 976, 996.

⁵ See, e.g., *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities; Universal Service Obligations of Broadband Providers; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; 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; Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. § 160(c) with regard to Broadband Services Provided via Fiber to the Premises; Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided via Fiber to the Premises; Consumer Protection in the Broadband Era*, WC Docket Nos. 04-242, 05-271, CC Docket Nos. 95-20, 98-10, 01-337, 02-33, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) (*Wireline Broadband Order*), petitions for review denied, *Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007).

⁶ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; 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; Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, CC Docket Nos. 02-33, 01-337, 98-10, 95-20, GN Docket No. 00-185, CS Docket No. 02-52, Policy Statement, 20 FCC Rcd 14986 (2005) (*Internet Policy Statement*).

⁷ See Chairman Kevin J. Martin, Comments On Commission Policy Statement, News Release (rel. Aug. 5, 2005) ("While policy statements do not establish rules nor are they enforceable documents, today's statement does reflect core beliefs that each member of this Commission holds regarding how broadband Internet access should function."); *Wireline Broadband Order*, 20 FCC Rcd at 14980, Statement of Michael J. Copps, Concurring ("While I would have preferred a rule that we could use to bring enforcement action, this is a critical step. And with violations of our policy, I will take the next step and push for Commission action.").

allegations of misconduct, emphasizing its “authority to promulgate regulations”⁸ – regulations not written at that time, or today. Such intentions were, I thought, reinforced in 2007 when I voted to adopt the *Broadband Industry Practices Notice*, the first step in a *rulemaking* proceeding designed to determine whether rules governing network management practices were necessary.⁹ As I stated at that time, we were taking “a sensible, thoughtful and reasonable step that should give the Commission a factual record upon which to make a reasoned determination whether additional action is justified or not, pursuant to the Commission’s ancillary jurisdiction to regulate interstate and foreign communications.”¹⁰ The additional action I contemplated was the logical move from an NOI to an NPRM — not an unprecedented, and likely unsustainable, jump to rulemaking by adjudication. Like it or not, no notice of proposed rulemaking, with a chance for public comment, was ever issued. Nothing regulating Internet network governance has been codified in the Code of Federal Regulations. In short, we have no rules to enforce. This matter would have had a better chance on appeal if we had put the horse before the cart and conducted a rulemaking, issued rules and *then* enforced them.

The majority’s view of its ability to adjudicate this matter solely pursuant to ancillary authority is legally deficient as well. Under the analysis set forth in the order, the Commission apparently can do *anything* so long as it frames its actions in terms of promoting the Internet or broadband deployment. The fact that the D.C. Circuit has affirmed the Commission’s exercise of ancillary authority in very different adjudicatory proceedings and in the absence of regulations is, in my view, unpersuasive.¹¹ The Commission in those cases was acting pursuant to a provision of the statute that provides the Commission express grant of authority¹² or a statutory provision that imposed an “explicit” obligation on a class of entities that legislative history indicated was intended to be covered by the statute.¹³ In this case, none of the sections of the Act identified in the order impose explicit and relevant obligations on Comcast, or any other broadband network operator. The Commission likewise overreaches in attempting to justify this order by extension of sections 1, 201, 256, 257 or 604. The majority presents no convincing argument that its regulation of a broadband network operator’s management practices is “reasonably ancillary to the effective performance of the Commission’s various responsibilities” under those sections of the Act.¹⁴ Thus, in the absence of rules, neither the general policy goals set forth in sections 230 and 706 of the Act nor the attempt to extend our authority in sections 1, 201, 256, 257 or 604 provide enough of a legal basis for us to act. If Congress had wanted us to regulate Internet network management, it would have said so explicitly in the statute, thus obviating any perceived need to introduce legislation as has occurred during this Congress. In other words, if the FCC already possessed the authority to do this, why have bills been introduced giving us the authority we ostensibly already had?

⁸ See *Wireline Broadband Order*, 20 FCC Rcd at 14904 n. 287 (“Federal courts have long recognized the Commission’s authority to promulgate regulations to effectuate the goals and accompanying provisions of the Act in the absence of explicit regulatory authority, if the regulations are reasonably ancillary to the effective performance of the Commission’s various responsibilities”).

⁹ *Broadband Industry Practices*, WC Docket No. 07-52, Notice of Inquiry, 22 FCC Rcd 7894 (Apr. 16, 2007) (*Broadband Industry Practices Notice*).

¹⁰ See *id.*, 22 FCC Rcd at 7909, Statement of Robert M. McDowell.

¹¹ See Order n. 163.

¹² See, e.g., *New York State Comm’n on Cable Television v. FCC*, 749 F.2d 804 (D.C. Cir. 1984) (*New York State Comm’n on Cable Television*). *New York State Comm’n on Cable Television* noted that the Commission based its authority on the federal interest in “the unfettered development of interstate transmission of satellite signals,” which in turn was found to flow from Title III of the Act. See *id.* at 808 (citing *Earth Satellite Communications, Inc.*, Declaratory Ruling, 95 FCC 2d 1223 at paras. 15-16 (1983)).

¹³ *CBS, Inc. v. FCC*, 629 F.2d 1, 26 (1980).

¹⁴ *United States v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968).

For the same reasons, the majority's arguments that the *Adelphia/Time Warner/Comcast Order* somehow constituted notice of the Commission's intent to adjudicate the Policy Statement,¹⁵ and that Comcast's consummation of the merger approved in the *Adelphia/Time Warner/Comcast Order* constituted a waiver of its right to challenge such an adjudication,¹⁶ fail. The Commission can not possibly be seen to have given notice to Comcast (or any other party) of a preference to adjudicate the Policy Statement because the Commission lacks the authority to adjudicate the matter in the absence of rules.

Further, although it relies heavily on the Supreme Court's description of an agency's adjudicatory authority in *Chenery II*, the majority ignores that same court's admonition to avoid adjudications that may have a "retroactive effect."¹⁷

Additionally, today's order relies on the *Madison River* consent decree of 2005 to justify today's actions.¹⁸ The *Madison River* case differs in significant ways from what we have before us. For starters, none of the parties involved settled their differences "out of court" as Comcast and BitTorrent have done here. No arguments regarding network congestion and management were at play, as they are here. And most importantly, the Commission clearly relied on its Title II jurisdiction over Madison River, a rural local exchange carrier, rather than whatever ancillary jurisdiction it might have had under Title I.¹⁹

Perhaps most puzzling of all is the Commission's use of a "strict scrutiny" type standard to strike down the actions of a private party engaged in management of its network. The majority is too clever to call its standard of review "strict scrutiny," and with good reason. It is unprecedented, and inappropriate, for the Commission to judge the actions of a private actor by a standard that has generally been reserved

¹⁵ Order at para. 35 (citing *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, Adelphia Communications Corporation, (and Subsidiaries, Debtors-In-Possession), Assignors and Transferors, to Comcast Corporation (Subsidiaries), Assignees and Transferees, Comcast Corporation, Transferor, to Time Warner Inc., Transferee, Time Warner Inc., Transferor, to Comcast Corporation, Transferee*, MB Docket No. 05-192, Memorandum Opinion and Order, 21 FCC Rcd 8203, 8298, para. 220 (2006) (*Adelphia/Time Warner/Comcast Order*)).

¹⁶ See Order at para. 27.

¹⁷ Further, "such retroactivity must be balanced against the mischief of producing a result which is contrary to statutory design or to legal and equitable principles." *SEC v. Chenery Corp.*, 332 U.S. 194, 203 (1947) (*Chenery II*). See also *Heckler v. Cmty. Health Servs. of Crawford County, Inc.*, 467 U.S. 51, 60 n. 12 (1984) (recognizing that "an administrative agency may not apply a new rule retroactively when to do so would unduly intrude upon reasonable reliance interests"). The D.C. Circuit, the court to which this order most likely will be appealed, has identified five non-exclusive factors useful for determining when the retroactive effect of an adjudicatory decision is invalid. See *Retail, Wholesale and Department Store Union, AFL-CIO v. NLRB*, 466 F.2d 380, 390 (D.C. Cir. 1972) ("(1) whether the particular case is one of first impression, (2) whether the new rule represents an abrupt departure from well established practice or merely attempts to fill a void in an unsettled area of law, (3) the extent to which the party against whom the new rule is applied relied on the former rule, (4) the degree of the burden which a retroactive order imposes on a party, and (5) the statutory interest in applying a new rule despite the reliance of a party on the old standard.") The majority's application of the criteria described by the 9th Circuit in *Pfaff* is thus arguably inappropriate and, I believe, incorrect. See Order at paras. 33-36 (citing *Pfaff v. U.S. Dep't of House. & Urban Dev.*, 88 F.3d 739, 748 (9th Cir. 1996)).

¹⁸ *Madison River Communications, LLC and Affiliated Companies*, File No. EB-05-IH-0110, Order, 20 FCC Rcd 4295 (2005) (*Madison River*).

¹⁹ *Id.*, 20 FCC Rcd at 4296, para. 1 ("The Investigation was undertaken pursuant to sections 4(i), 4(j), 218, and 403 of the Communications Act."). It is also worth noting that the consent decree did "not constitute either an adjudication on the merits or a factual or legal finding regarding any compliance or noncompliance with the requirements of the Act and the Commission's orders and rules." *Id.*, 20 FCC Rcd. at 4298, para. 10.

for determining whether the *government* has trampled on the fundamental constitutional rights of *individuals*. The Commission certainly has never used it to restrain private parties in their interactions with other private parties. Using a strict scrutiny standard in this context, especially one wearing a transparent disguise, is sure to doom this order on appeal.

Even if the complaint was not procedurally deficient and we had rules to enforce, the next step would be to look at the strength of the evidence. The truth is, the FCC does not know what Comcast did or did not do. The evidence in the record is thin and conflicting. All we have to rely on are the apparently unsigned declarations of three individuals representing the complainant's view, some press reports, and the conflicting declaration of a Comcast employee.²⁰ The rest of the record consists purely of differing opinions and conjecture. As the majority embarks on a regulatory journey into the realm of the unknowable, the evidentiary basis of its starting point is tremendously weak, to the point of being almost non-existent. In a proceeding of this magnitude, I do not understand why, in the absence of strong evidence, the Commission did not conduct its own factual investigation under its enforcement powers. The Commission regularly takes such steps in other contexts that, while important, do not have the sweeping effect of today's decision.²¹

Additionally, the majority does not address the issue of motive. The allegations before us boil down to a suspicion that Comcast was motivated not by a need to manage its network, but by a desire to discriminate against BitTorrent and similar technologies for anticompetitive reasons. If Comcast intended to harm its competitors, would it not have targeted other online video providers? Americans download more than eleven billion Internet videos per month, yet the record contains no evidence that Comcast is interfering with sites like YouTube which do not use pipe-clogging P2P software. The record also does not speak to the fact that other prominent video sites, such as Joost, use more efficient P2P software that does not cause the same congestion problems as BitTorrent. As a result of their use of software that works better on existing networks, virtually no network management is needed. The majority's silence on this key exculpatory point is deafening.

Finally, even if this case were not procedurally and legally deficient in so many regards, we must address whether the policies the majority is adopting today are in the public interest. And the answer is no. Ironically, today's action by the FCC may actually result in *slower* online speeds for 95 percent of America's Internet consumers. That is because, up until this point, engineers made engineering decisions, not unelected bureaucrats. Although I have a tremendous amount of respect for each of my colleagues, none of us has an engineering degree.

As a result, the practical effect of today's order requires *all* network operators – cable, telcos and wireless providers – to treat all Internet traffic equally. That sounds good if you say it fast. But the reality is that the Internet can function only if engineers are allowed to *discriminate* among different types of traffic. Now, the word “discriminate” carries with it extremely negative connotations, but to network engineers it means “network management.” Discriminatory conduct, in the network management context, does not necessarily mean anticompetitive conduct. And this is where a lot of the misunderstandings

²⁰ The only signed declaration in either File No. EB-08-IH-1518 or WC Docket 07-52 is that of a Comcast employee. See Declaration of Mitch Bowling, Senior Vice President & General Manager of Online Services and Operations, Comcast Cable Communications, LLC, filed with Letter from Kathryn A. Zachem, Vice President, Regulatory Affairs, Comcast Corporation, to Marlene H. Dortch, Secretary, FCC (July 21, 2008).

²¹ See e.g., *Zaria*, Order to Show Cause, Notice of Opportunity for Hearing and Hearing Designation Order, EB Docket No. 03-152, 18 FCC Rcd 14938 (2003) (Commission field offices conducted investigations to determine veracity of allegations made in informal objections to broadcast license renewal applications); *New Jersey Broadband, LP and New Jersey Broadband, LLC*, File Number EB-05-PA-12621, Consent Decree, 21 FCC Rcd 12466, 12468 (Enf. Bur. 2006) (Enforcement Bureau investigation of potential violations of the Act and Commission rules included “inspections” and “direction finding measurements”).

come into play. As human beings, we do not tolerate delay or interference when it comes to certain kinds of applications. For instance, we expect our online movies to be clear and not distorted by competing data coming over the same Internet connection. For us to enjoy online video without interruption or distortion, video bits have to be given priority over, say, email bits. But now that all traffic must be treated equally, that is going to change. The new regime is tantamount to a congested downtown area without stoplights. Gridlock is likely to result.

The majority is creating regulatory uncertainty for engineers. Under the new regulatory rubric of the undefined term “reasonable network management,” engineers do not know if they are allowed to manage your Internet experience so you can watch online video without distortion, pops, and hisses. Similarly, they now do not know what the government will allow them to do, or not do, to manage the growing flood of peer-to-peer applications. Here’s the problem: If you use cable modem or wireless broadband services, you may not know it, but you share bandwidth with your neighbor. That’s just the nature of these networks, many of which were built long before P2P became popular. If your neighbor uses more bandwidth, that leaves less for you to use. This is especially true when your neighbor uses peer-to-peer applications. Many P2P applications consume as much bandwidth as they can find. In fact, only five percent of all Internet consumers are using 90 percent of the bandwidth due to P2P. Some estimate that seventy-five percent of the world’s Internet traffic is P2P. As a result of increased P2P usage, many consumers’ “last mile” Internet connections are getting clogged. These electronic traffic jams slow down the Internet for the vast majority of consumers who do not use P2P software to watch videos on YouTube or surf the Web. In short, this flood of data has created a tyranny by a minority. By depriving engineers of the freedom to manage these surges of information flow by having to treat all traffic equally as the result of today’s order, the Information Superhighway could quickly become the Information Parking Lot. The regulatory law of unintended consequences is sure to prevail.

While we at the FCC are trying to spur more competitive build-out of vital last-mile facilities, especially fiber and wireless platforms, this congestion problem will not be resolved merely by building fatter and faster pipes. In fact, according to Japan’s government, P2P congestion is creating similar network management problems there even though that country advertises broadband speeds far in excess of ours.

The Internet has faced several congestion “crises” like the current one over the years. Each time, groups comprised of engineers, academics, software developers, Internet infrastructure builders and others have worked together to fix the problems of the day. Over time, some of these groups have become more formalized such as the Internet Society, the Internet Engineering Task Force and the Internet Architecture Board. These groups have remained largely self-governing, self-funded and non-profit – with volunteers acting in their own capacities and not on behalf of their employers. No government owns or regulates these groups; rather, governments can act as observers and collaborative partners. The Internet has been governed in a bottom-up “wiki” manner rather than a top-down government-knows-best style. The Internet has flourished as a result.

For quite some time now, these and other groups have been working on the P2P congestion problem, and they have been producing positive results. Since the Internet’s inception, similar work has progressed without a government mandate or regulatory framework. Now that era had ended.

For the first time, today our government is choosing regulation over collaboration when it comes to Internet governance. The majority has thrust politicians and bureaucrats into engineering decisions. It will be interesting to see how the FCC will handle its newly created power because, as an institution, we are incapable of deciding any issue in the nanoseconds of Internet time. Furthermore, asking our government to make these decisions will mean that every two to four years the ground rules could change depending on election results. Internet engineers will find it difficult, if not impossible, to operate in a climate like that. Today’s action is raising many questions across the globe. Is the next step for the FCC to mandate that network owners must ask the government for permission before serving their customers

by managing surges of information flow? As a result of today's actions, Internet lawyers around the country are likely advising their clients to do just that. Will the FCC be able to handle *that* case load? Will other countries like China follow suit and be able to regulate American companies' network management practices, with effects that could be felt here? How do we know where to draw the line given that the Internet is an interconnected global network of networks? Given the Internet's interconnectivity, are we now starting a global race to the lowest common denominator of maximum government regulation all in the name, ironically, of Internet *freedom*? Keep in mind that societies that regulate the Internet less tend to be more democratic, while regimes that regulate it more tend to be less democratic.

I am being asked these and many other questions, and I don't have answers to them. No one does. But two things are for sure, this debate will continue, and the FCC has generated more questions than it has answered.

A better model for the majority to have adopted today would have been to allow the long-standing and time-tested collaborative Internet governance groups to continue to produce the fine work they have successfully put forth for years. If they find themselves unable to agree (which has never happened – not even in this case before us), then the government should examine the situation and act accordingly. Perhaps the FCC could have created a new role for itself by spotlighting complaints of potentially nefarious network practices and conveying them to the IETF for collaborative review and action. Sometimes merely shining sunlight on controversies can produce amazingly beneficial effects.

In that vein, some have argued that without the complaint, the Comcast/BitTorrent matter would never have been settled last March. They may be correct. In the law, we call this a litigation strategy. Courts encourage litigants to settle their disputes before trial. Once settled, courts dismiss cases as part of a policy to encourage future settlements. Here the majority is doing the opposite. Even though Comcast and BitTorrent settled and pled for no further “government intervention,” the majority has gone forward with this adjudication. The net effect punishes those that settle and discourages future settlements.

So today, for the first time in Internet history, we say “goodbye” to the era of collaboration that served the Internet community and consumers so well for so long; and we say “hello” to unneeded regulation and all of its unintended consequences. Accordingly, I respectfully dissent.